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*Year : 2014*

## Integration of Teacher Education into the Swiss Higher Education System

Stefan Denzler

Stefan Denzler, 2014, Integration of teacher education into the Swiss higher education system.

Originally published at : Thesis, University of Lausanne

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FACULTÉ DES SCIENCES SOCIALES ET POLITIQUES  
INSTITUT D'ÉTUDES POLITIQUES ET INTERNATIONALES

**INTEGRATION OF TEACHER EDUCATION INTO THE  
SWISS HIGHER EDUCATION SYSTEM**

THÈSE DE DOCTORAT

présentée à la

Faculté des sciences sociales et politiques de l'Université de Lausanne  
pour l'obtention du grade de docteur en science politique

par

Stefan Denzler

*Directeur de thèse*

Professeur Jean-Philippe Leresche

Lausanne 2014



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Faculté des sciences  
sociales et politiques

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**« *Integration of teacher education into the Swiss higher education system* »**

Lausanne, le 23 août 2013

***Le Doyen de la Faculté***

Professeur  
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## PREFACE AND ACKNOWLEDGMENTS

The idea for this doctoral thesis came out of my research into institutions of teacher education in Switzerland. It benefits in particular from previous studies on the transition from post-secondary to higher education that I conducted at the *Swiss Coordination Centre for Research in Education*. Yet the realization of this PhD project proved to be demanding and challenging, in particular with regard to institutional affiliation, the disciplinary and methodological approach, and data collection. With Professor Jean-Philippe Leresche, University of Lausanne and Director of the *Observatoire Science, Politique et Société*, I found a political scientist with long-standing expertise in higher education policy studies and extensive knowledge of the Swiss higher education system who was willing to supervise and accompany my thesis. I am very grateful for all his support and constructive advice.

Professor Stefan C. Wolter, University of Berne and Director of the *Swiss Coordination Centre for Research in Education*, supervised and guided much of my previous research. I am deeply indebted to him for his backing and constant availability. In all my years at the Centre, he provided me with an excellent exposure to scientific work and taught me a critical approach to empirical quantitative analysis. Furthermore, I owe a special debt to Professor Dietmar Braun, University of Lausanne, for insightful comments and most valuable discussions and advice on the theoretical approach. I greatly benefited from his profound knowledge on theories of governance. Also, I would like to thank Professor Karl Weber, emeritus professor of sociology from the University of Berne and scholar with an extensive research background in higher education studies, for our fruitful discussions of the thesis proposal and the conception of the analysis. He gave me a very helpful and constructive review at an early stage of the project.

A PhD thesis is a long-lasting project with multiple phases and with no linear development. Many people have contributed to the realization of this project. I have discussed with a great many colleagues and experts in the field, whom I would like to recognize for their support, helpful comments, critiques and advices. At conferences, at seminars or in the PhD courses, I received further input from lecturers and colleagues. In this regard, I would like to mention in particular the workshop on higher education policy in Switzerland, organized in May 2011 by Professor Benedetto Lepori, University of Lugano, where I received insightful and constructive review comments from Professor Ivar Bleikli, University of Bergen, and Professor Jürgen Enders, Center for Higher Education Policy Studies (CHEPS) of the University of Twente, on a draft paper dealing with my thesis topic. My thanks also go to Grit Laudel,

CHEPS and former scholar of the Max Planck Institute for the Study of Societies, Cologne, for our helpful discussions and her critical and constructive feedback on the thesis proposal as well as for teaching and advice on qualitative methods in the social sciences.

Likewise, I shall recognize further sources of support. I am very grateful to Lukas Bäschung of the *General Directorate of Higher Education*, Canton of Vaud, for sharing his experience with his thesis on higher education policy. We had many helpful discussions on thematic, methodological and practical procedural aspects of this PhD project. Furthermore, I am grateful to Christine Bieri Buschor of the *Zurich University of Teacher Education*, for the cooperation with the survey on high-school graduates and all the later collaboration arising from that original project as well as her initiative to welcome me to her research department during my work leave in autumn 2011. I also thank Tobias Bisig and Caroline Piovan for assistance with the transcription of the interviews. And finally, I owe special thanks to David Neal for his proofreading and revision of the written text, aimed at making it more readable.

At this point, I should also like to take the opportunity to express my special thanks to all those who agreed to be interviewed as experts in the field or representatives of institutions. These interview partners, over thirty in number, generously gave me their time and shared their insights, visions, and understanding of the topic under investigation, thereby making a key contribution to the realization of the project. I have guaranteed them confidential treatment of the information provided in the interviews. As a result, the transcripts are not published in the annex and the quoted statements are not identified using full names.

Finally, I am greatly obliged to my family for supporting me in many ways; to my parents, Heidi and Kurt Denzler, for having always offered me great freedom and confidence in all my educational choices. I am very grateful to my parents-in-law, Judith and Arno Schircks, who took care of our children on many occasions, relieving me of my family obligations so I could press ahead with writing my thesis. And, last but not least, I am deeply indebted to my wife, Rhea Schircks Denzler, for having supported this project from the very beginning even though she knew full well from her own experience what writing a doctoral thesis means and the kind of sacrifices such an undertaking entails. This thesis is dedicated to her.

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## ABSTRACT

The integration of specific institutions for teacher education into the higher education system represents a milestone in the Swiss educational policy and has broad implications. This thesis explores organizational and institutional change resulting from this policy reform, and attempts to assess structural change in terms of differentiation and convergence within the system of higher education. Key issues that are dealt with are, on the one hand, the adoption of a research function by the newly conceptualized institutions of teacher education, and on the other, the positioning of the new institutions within the higher education system. Drawing on actor-centred approaches to differentiation, this dissertation discusses system-level specificities of tertiarized teacher education and asks how this affects institutional configurations and actor constellations.

On the basis of qualitative and quantitative empirical data, a comparative analysis has been carried out including case studies of four universities of teacher education as well as multivariate regression analysis of micro-level data on students' educational choices. The study finds that the process of system integration and adaption to the research function by the various institutions have unfolded differently depending on the institutional setting and the specific actor constellations. The new institutions have clearly made a strong push to position themselves as a new institutional type and to find their identity beyond the traditional binary divide which assigns the universities of teacher education to the college sector. Potential conflicts have been identified in divergent cognitive normative orientations and perceptions of researchers, teacher educators, policy-makers, teachers, and students as to the mission and role of the new type of higher education institution.

*Keywords:* higher education policy, differentiation, non-university sector, institutions of teacher education

## RÉSUMÉ

L'intégration dans le système d'enseignement supérieur d'institutions qui ont pour tâche spécifique de former des enseignants peut être considérée comme un événement majeur dans la politique éducative suisse, qui se trouve avoir des conséquences importantes à plusieurs niveaux. Cette thèse explore les changements organisationnels et institutionnels résultant de cette réforme politique, et elle se propose d'évaluer en termes de différenciation et de convergence les changements structurels intervenus dans le système d'éducation tertiaire. Les principaux aspects traités sont d'une part la nouvelle mission de recherche attribuée à ces institutions de formation pédagogique, et de l'autre la place par rapport aux autres institutions du système d'éducation tertiaire. Recourant à une approche centrée sur les acteurs pour étudier les processus de différenciation, la thèse met en lumière et en discussion les spécificités inhérentes au système tertiaire au sein duquel se joue la formation des enseignants nouvellement conçue et soulève la question des effets de cette nouvelle façon de former les enseignants sur les configurations institutionnelles et les constellations d'acteurs.

Une analyse comparative a été réalisée sur la base de données qualitatives et quantitatives issues de quatre études de cas de hautes écoles pédagogiques et d'analyses de régression multiple de données de niveau micro concernant les choix de carrière des étudiants. Les résultats montrent à quel point le processus d'intégration dans le système et la nouvelle mission de recherche peuvent apparaître de manière différente selon le cadre institutionnel d'une école et la constellation spécifique des acteurs influents. A pu clairement être observée une forte aspiration des hautes écoles pédagogiques à se créer une identité au-delà de la structure binaire du système qui assigne la formation des enseignants au secteur des hautes écoles spécialisées. Des divergences apparaissent dans les conceptions et perceptions cognitives et normatives des chercheurs, formateurs, politiciens, enseignants et étudiants quant à la mission et au rôle de ce nouveau type de haute école.

*Mots-clés:* politique d'enseignement supérieur, différenciation, hautes écoles pédagogiques

## ZUSAMMENFASSUNG

Die Integration spezieller Institutionen für die Lehrerbildung ins Hochschulsystem stellt einen bedeutsamen Schritt mit weitreichenden Folgen in der Entwicklung des schweizerischen Bildungswesens dar. Diese Dissertation untersucht die mit der Neuerung verbundenen Veränderungen auf organisatorischer und institutioneller Ebene und versucht, die strukturelle Entwicklung unter den Gesichtspunkten von Differenzierung und Konvergenz innerhalb des tertiären Bildungssystems einzuordnen. Zentrale Themen sind dabei zum einen die Einführung von Forschung und Entwicklung als zusätzlichem Leistungsauftrag in der Lehrerbildung und zum andern die Positionierung der pädagogischen Hochschulen innerhalb des Hochschulsystems. Anhand akteurzentrierter Ansätze zur Differenzierung werden die Besonderheiten einer tertiarisierten Lehrerbildung hinsichtlich der Systemebenen diskutiert und Antworten auf die Frage gesucht, wie die Reform die institutionellen Konfigurationen und die Akteurkonstellationen beeinflusst.

Auf der Grundlage qualitativer und quantitativer Daten wurde eine vergleichende Analyse durchgeführt, welche Fallstudien zu vier pädagogischen Hochschulen umfasst sowie Regressionsanalysen von Mikrodaten zur Studienwahl von Maturanden. Die Ergebnisse machen deutlich, dass sich der Prozess der Systemintegration und die Einführung von Forschung in die Lehrerbildung in Abhängigkeit von institutionellen Ordnungen und der jeweiligen Akteurkonstellation unterschiedlich gestalten. Es lässt sich bei den neu gegründeten pädagogischen Hochschulen ein starkes Bestreben feststellen, sich als neuen Hochschultypus zu positionieren und sich eine Identität zu schaffen jenseits der herkömmlichen binären Struktur, welche die pädagogischen Hochschulen dem Fachhochschul-Sektor zuordnet. Potentielle Konflikte zeichnen sich ab in den divergierenden kognitiven und normativen Orientierungen und Wahrnehmungen von Forschern, Ausbildern, Bildungspolitikern, Lehrern und Studierenden hinsichtlich des Auftrags und der Rolle dieses neuen Typs Hochschule.

*Schlüsselbegriffe:* Hochschulpolitik, Hochschulsystem, Differenzierung, Fachhochschulen, pädagogische Hochschulen, akteurzentrierte Differenzierungstheorie

# **INTRODUCTION**





# **1 Research topic**

## **1.1 Structural change in higher education**

In recent decades, higher education systems in many European countries have undergone substantial reforms resulting from various external and internal pressures. Progressive regional integration and internationalization of the higher education sector have generated a dynamic that has impacted national education policies and transformed national higher education systems (see, for example, Enders 2004; Teichler 2006a; Leresche 2009). The increasing integration of national higher education systems has set in motion a process that is gradually reconfiguring higher education institutions. These systemic changes and structural dynamics have long been a focus of research into higher education policy (Teichler 2007).

This thesis addresses the issue of system integration in higher education using the example of teacher education in Switzerland. In most countries, teacher education was traditionally considered as part of further professional education and was therefore organized outside the university sector (Kyvik 2009). However, most European countries have by now integrated general teacher education into the higher education system. Furthermore, the duration of study programmes has been extended and the Bologna degree structure has been introduced (cf. Eurydice 2002; OECD 2005). Likewise, teacher education has been upgraded and integrated into the higher education system in Switzerland, albeit relatively recently. In the 1990s, primary school teachers were still trained at post-secondary institutions and granted professional licences. However, following changes made a couple of years ago, all teachers now study at universities of teacher education (UTEs) and graduate with a Bachelor's or Master's degree. Some of the new institutions of teacher education are already calling for the introduction of the doctorate, reflecting the rapid pace of change in the sector. This is, in a nutshell, the new landscape as far as higher education is concerned.

With the establishment of specialized higher education institutions for teacher education, the higher education system has been differentiated. Yet what are the consequences of system differentiation? The integration of teacher education into the higher education system and the establishment of newly conceptualized institutions of teacher education have resulted in a dynamic with an uncertain outcome. There are a number of issues to be considered, in particular as to the changed institutional configuration, actors' interests and conflicting forces, or structural and organizational changes within the higher education system. Accordingly, I view

the proposed overall research topic as a challenging research field that is worthwhile for scientific research involving both sociology and political science.

This study deals with system configurations in higher education and the dynamics resulting from the integration of an entire new sector, namely, teacher education. In particular, the research ponders the intended and unintended outcomes of the policy change. Higher education policy research has focused on the investigation of the relationship between government policy and the structure of higher education systems, for, as Meek (1991) quite rightly puts it:

Change in higher education is based on power relations and the articulation of interests by various groups whose actions and interests are themselves either constrained or furthered by both the structure of the academic system and their location in it. This implies that empirical research cannot be confined to just one of these central issues – power relations, interest articulation, system structure, or positions – but has to be focused on the *interrelationships* [sic] between them. It is the dynamics of the interplay between actors in different positions with a variety of motivations and interests which is at stake. (Meek et al. 1991: 454)

The research agenda in higher education policy set up by Meek et al. (1991) in the early nineties comprised the following goals: first, an attempt to describe the concrete changes and reforms in government policy and to identify possible effects as to differentiation or convergence; second, the identification of the institutional responses to the policy initiatives; and third, the description of the “classificatory relationship” among institutions of higher education, looking at both “formal” and “informal classification” (Meek et al. 1991: 458). Although research in this domain has grown impressively since then on the international level (cf. Rhoades 1990; Huisman 1995; Meek et al. 2000; Teichler 2008a), the Swiss situation, as described, is a rather recent phenomenon. Nor has there been much scientific work on this subject. Thus, for a latecomer like Switzerland, the proposed research goals are still salient, in particular, the issue of institutional differentiation (cf. Perellon and Baschung 2006; Lepori and Fumasoli 2010). Accordingly, the key themes I shall cover are the institutional dynamics in terms of differentiation or convergence, and the discussion of types and roles of higher education institutions (HEIs) as well as possible classification (HEIs). Furthermore, the establishment of new institutions of teacher education has to be discussed in the context of the system differentiation into a university and a non-university sector. Finally, the subsequent development of the second tier and its relationship to the university sector has to be dealt with.

The overall goal of this thesis is to study structural and institutional processes and dynamics within higher education and in particular within the field of teacher education. I shall argue that recent developments of the new institutions of teacher education and their adaption process and search for identity within the system configurations make an interesting case for examining structural dynamics in higher education.

## 1.2 Differentiation of the higher education system

A prominent structural characteristic of higher education systems is the extent of diversity and differentiation within the system. Tertiary systems are described referring to the observed diversity respectively to structural dynamics by using the concept of differentiation. With the term diversity, I shall principally refer to differences as to the institutional configuration within higher education systems (cf. Trow 1997, 2006; Teichler 2006a). Trow (1997) provides the following definition:

By diversity in higher education I mean the existence of distinct forms of post-secondary education, of institutions and groups of institutions within a state or nation that have different and distinctive missions, educate and train for different lives and careers, have different styles of instruction, are organized and funded differently and operate under different laws and relationships to government. They also might have different styles of instruction, and different relationships to the sources of knowledge in research and scholarship. (Trow 1997: 15)

There are different dimensions of diversity (vertical, horizontal, external, internal, etc.) serving as criteria for the categorization of higher education systems (for a more in-depth discussion of the concept of diversity see chapter 3.2.3, p. 28). In general terms, most European countries have experienced some form of system differentiation in higher education leading to a second type of higher education institution (cf. Gellert 1995; Lourdes Machado et al. 2008; Teichler 2008b; Lepori and Kyvik 2010). Whereas in most European countries, this development took place in the 1970s and 1980s, substantive reforms with regard to higher education in Switzerland only begun in the 1990s.

With the establishment of polytechnic colleges<sup>1</sup> in 1995, a large share of the post-secondary non-university sector in Switzerland was integrated into the higher education sector at ISCED level 5A<sup>2</sup>. Following international trends in higher education and in the light of the challenges of the knowledge society (Teichler 2007), post-secondary education institutions in the fields of engineering<sup>3</sup> and economics<sup>4</sup> were upgraded to the tertiary level and integrated

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<sup>1</sup> Officially called “Universities of applied sciences”, in French “Hautes écoles spécialisées” and in German “Fachhochschulen”.

<sup>2</sup> “ISCED level 5A programmes are tertiary programmes that are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and professions with high skills requirements. They must satisfy a sufficient number of the following criteria: They have a minimum cumulative theoretical duration of three years’ full-time equivalent, although typically they are of four or more years. If a degree has a three-year full-time equivalent duration, it is usually preceded by at least 13 years of previous schooling. [...]; they typically require that the faculty have advanced research credentials; they may involve completion of a research project or thesis; they provide the level of education required for entry into a profession with high skills requirements or an advanced research programme.”

(UNESCO: International Standard Classification of Education (ISCED 1997), November 1997; [http://www.unesco.org/education/information/nfsunesco/doc/isced\\_1997.htm](http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm) [12.2.2013])

<sup>3</sup> In French « Écoles techniques supérieures (écoles d’ingénieurs) (ETS), in German « Höhere Technische Lehranstalten (HTL) »

into a number of newly conceptualized polytechnic colleges, officially named universities of applied sciences (UASs). With this reform of the non-university sector, Switzerland differentiated into a binary structure within the higher education system (Lepori 2008; Lepori and Kyvik 2010).

The universities of applied sciences were founded to complement the traditional universities and create an applied alternative to traditional, academic university studies; upgrade non-university post-secondary education; gain national and international recognition; and supply a sufficient high-quality workforce<sup>5</sup> (Pätzmann 2005: 36). Both types of higher education institutions (HEIs) are considered to be formally equal, and both grant academic titles on the Bachelor's and Master's level. In 2004, the Federal Act on Universities of Applied Sciences (FHSG) was amended. The purpose of this amendment was to integrate further sectors of the post-secondary non-university sector. As a result, nursing and related health professions, social work, music and the fine arts came under federal regulation and have thus equally been upgraded to the tertiary level and integrated into the UASs.<sup>6</sup> In fact, the latter thus became comprehensive colleges at the tertiary level comprising a variety of subject matters.

Towards the end of the 1990s, general teacher training<sup>7</sup> – hitherto offered by local institutions of the secondary or post-secondary education sector – were harmonized and coordinated on a national, intercantonal level and upgraded to higher education institutions at the tertiary level, officially named universities of teacher education (UTEs).<sup>8</sup> These new institutions of teacher education were conceptualized along similar lines as the polytechnic colleges, the universities of applied sciences (UASs), as higher education institutions forming part of the non-university sector and entrusted with a mission similar to that of the UASs (cf. EDK 1993b, EDK 1995). Their mission comprises a fourfold task: initial teacher training and education; continuing education and training; occupation-specific research and development; and services such as mentoring and counselling (cf. EDK 1995: B.2). Whereas the former institutions of teacher education were only responsible for the initial education and training of teachers, these newly created UTEs have been assigned additional functions. Among these, research has been perceived as the key element taking on a very prominent role for the self-image of teacher education as an institution of higher education (c.f. Reusser 1996; Forneck 2009b: 212).

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<sup>4</sup> In French « Écoles supérieures de cadres pour l'économie et l'administration (ESCEA), in German « Höhere Wirtschafts- und Verwaltungsschulen (HWV) »

<sup>5</sup> Cf. Government dispatch (Conseil fédéral 1994: 3ff.).

<sup>6</sup> See the dispatch of the Federal Government (Conseil fédéral 2003: 7ff.).

<sup>7</sup> By “general teacher training”, or “general teacher education”, I refer to the comprehensive training of teachers for the compulsory schools (i.e. at the pre-school, primary and lower secondary level).

<sup>8</sup> In French “hautes écoles pédagogiques (HEP)”, in German „Pädagogische Hochschulen (PH)“; see also: <http://www.cohep.ch/en/universities-of-teacher-education/universities-of-teacher-education-in-switzerland/>

The way the new teachers' colleges were conceptualized and established by the cantons, which bear sole responsibility in this field, has varied among the cantons and regions. Teacher education has either been integrated into universities of applied sciences (e.g. Zurich, Northwest, Ticino); assigned to an independent new institution with cantonal or intercantonal funding (e.g. Vaud, Bern, and others); or established at the university (e.g. Geneva). With this striking institutional diversity, the field of teacher education has proved quite different from other fields in the non-university sector such as nursing or social work. Due to the federal structure, coordination and governance at the national and intercantonal level has turned out to be more complex in teacher education than in other fields, and harmonization cannot be achieved through a single federal law.

### **1.2.1 Integrating teacher education into a binary structure of higher education**

The challenge of the Swiss higher education system consists of incorporating cantonal institutions of teacher training into a binary system of higher education. For the universities of teacher education (UTEs), the challenge is to integrate the newly attributed research function in order to comply with the performance mandate. In view of recent developments, however, it is rather uncertain where the new UTEs are to be positioned virtually within the higher education system. Given the binary structure introduced in 1995 and the profession-oriented concept of the UTEs (cf. EDK 1995), teacher education would have to be considered as part of the universities of applied sciences (UASs) or at least of the non-university sector. At the same time, the UTEs require the same access qualifications as the regular universities, that is to say, a general baccalaureate,<sup>9</sup> whereas the required entry qualification for the UASs is a professional baccalaureate. Thus, the UTEs draw primarily on the same high-school graduates as the universities and therefore tend to see themselves on a higher level, structurally, speaking, than the UASs.<sup>10</sup>

This having been said, it is not clear how to assess the structure of the Swiss higher education system with regard to the different sectors and to decide whether it is adequate to keep on referring to a binary structure with a university and a non-university sector traditionally characterized by the division between general and vocational education (OECD 2003; Lepori and Kyvik 2010) or rather to a more diversified multi-type structure (Teichler 1998; Pratt 2001; Perellon 2003). In the latter case, the UTEs would then form a third type of HEI in addition to

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<sup>9</sup> In French "maturité gymnasiale" in German "gymnasiale Maturität", the degree of general upper secondary schooling qualifying students for admission to universities and universities of teacher education (SCCRE 2011: 123ff.)

<sup>10</sup> It is interesting to note that the UTEs emphasize the fact that their student clientele formally holds identical qualifications as the university students; however, it has to be verified empirically to what extent this formal criterion applies virtually.

classical universities and the UASs. Hence the question focuses on the development of the newly conceptualized UTEs in terms of institutional dynamics. Did the higher education system differentiate further with the establishment of the UTEs and does it now comprise, alongside the traditional universities and the universities of applied science, another type of HEI, namely, the universities of teacher education? And how have the UTEs adapted to the new research function and their role within the tertiary system?

### **1.3 Rationale for a system-theoretical perspective**

In order to answer these questions, I propose to adopt a system-theoretical perspective where social differentiation is conceptualized as functional differentiation of specific subsystems (Luhmann 2002: 13). Institutional and organizational developments can thus be analysed in the context of the structural transformation of teacher education. This would imply first discussing what were the major changes produced by the structural reform of teacher education with regard to system-specific functions. For the sector of teacher education, introducing teacher education into the higher education system implied adapting – in both cognitive-normative and organizational terms – to both the education and research systems of higher education. In other words, reforming teacher education entailed the attribution of a new function to teacher education, namely, the research function. This new function has been coupled with an upgraded and enhanced education of academic quality at the tertiary level. Henceforth, quality will have to rely on the reference to another organizational group comprising the research function.

The reasons for this upward structural shift are to be found in the overall social shift towards a knowledge society requiring a highly qualified workforce (cf. Teichler 2007). This development is characteristic of many non-academic professions such as teaching, social work, nursing or other health-related trades (Kyvik 2009). The need for a more skilled workforce entails the promotion of enhanced quality in training institutions and consequently the demand for higher qualified, i.e. scientifically trained, teaching personnel at these institutions. As a result, the professional training institutions cannot help but be affected by this overall “academic drift” (see Neave 1979, 1983; Kyvik 2009).

This type of upgrading challenges the institutions of teacher education in several aspects and in particular the teaching staff itself (see, for example, Fave-Bonnet 1998; Orsoni 1998). Thus, the question is how this process of adaption has unfolded (and is still unfolding). What conflicts has this development generated in the new institutions; how are they dealt with; and what are their outcomes at the structural level? Based on system-theoretical considerations, we would assume an inherent conflict between the new scientific orientation owing to the newly

attributed research function and the traditional profession-oriented educational role of teacher education.

### 1.3.1 Organizational coexistence of teaching and research

From a system-theoretical perspective, modern society is characterized by functional differentiation. Its primary subsystems are constituted by referring to specific functions, thus also the education system (cf. Stichweh 1988; Luhmann 1997, 2002). According to Luhmann, functional systems are operationally closed, that is, they reproduce their operations exclusively on the basis of their own operations and are thereby self-referential. In other words, they can only reproduce themselves on the basis of their own products. For instance, the education system operates within a societal environment where other functions are performed by other functional systems. Hence the education system does not have to concern itself as to its own income, political influence or research findings. Rather, these aspects are the responsibility of other functional subsystems such as the economic, political or science system. (Luhmann 2002: 14)

Otherwise, if we conceptualize subsystems as self-referential functional systems delineating themselves from other subsystems on the basis of their specific function, the coupling and coexistence of different functional systems can cause conflict. This applies in particular to the higher education system, where the education and research systems coexist at the level of the organization<sup>11</sup>. Luhmann explains this as follows:

Normalerweise sind Organisationen der modernen Gesellschaft auf jeweils eines der gesellschaftlichen Funktionssysteme spezialisiert: Industrieunternehmen und Banken auf die Wirtschaft, Kirchen auf das Religionssystem, Schulen auf das Erziehungssystem, politische Parteien und Interessensvertretungen auf das politische System. Für Universitäten gilt eine Ausnahme. Wie der Grundsatz der Einheit von Forschung und Lehre verkündet, dienen sie der Wissenschaft und der Erziehung zugleich. (Luhmann 2009: 217)

Universities must teach students while conducting research, that is to say, research is not an exclusive function of the university but must share the organization's resources with the teaching function, which is on an equal footing (Stichweh 1988: 57; Braun and Schimank 1992: 320). It is characteristic of the research system that it does not have its own organizational basis at its disposal. Research is either organizationally embedded in the research department within a private company or in departmental research units within a ministry or the research and education systems coexistent organizationally, as we can see in higher education institutions. The reason for the organizational coexistence of the research system with other systems is that research depends on the financial resources of its social environment, creating a

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<sup>11</sup> Here, Stichweh refers to what he calls „function combination“ (Stichweh 1988: 69).

special need for legitimation of research. This dependency and need for legitimacy in turn substantially affect the autonomy of the research system, insofar there is a danger that research may become linked to economic and political goals or be pushed aside by the heavy demands of teaching (Braun and Schimank 1992: 320ff.).

The autonomy of functional subsystems is founded on the specific self-referentially closed rationale which delimits it from all other subsystems (see chapter 4.2). We may therefore assume that the different cognitive and normative orientations of the research and education systems within a newly assigned coexistence in the organization of universities of teacher education are probably not easy to reconcile. This leads us to the question of how the institutions of teacher education can accommodate the new research function with their traditional education function and how the organizations adapt to the new reference.

The problem of the research system is that it requires special legitimacy for its demand for financial resources. And since the research system does not produce any system-external output such as other subsystems, it must draw on other sources for legitimacy. Traditionally, these are the legitimacy conferred by the utility of research for other systems and legitimacy stemming from the service of scientifically based teaching. External utility tends to be provided rather in the case of applied research, short-term commissioned investigations, research overviews, system monitoring or research for basing and establishing technical norms and indicators. Research of this nature, which meets the growing need of politics and administration for scientifically based information and policy foundation or for concrete advice is normally conducted not at universities but rather at departmental research centres within the administration (Braun and Schimank 1992: 322).

More fundamentally oriented research can hardly draw on such sources of legitimacy; it therefore derives its legitimacy from the supply of scientifically teaching services to the higher education system. This traditionally applies to scientific teaching at universities. The higher education system demands scientific teaching, i.e. specific teaching that only university professors can provide. Accordingly, university professors have a monopoly as to their teaching service. In turn, this monopolistic situation means that the education system depends on the research system at higher education institutions. For only the research system can provide the education system with the required qualification for scientific teaching, i.e. qualification through previous scientific work (as a rule, the scientific qualification of a post-doctoral degree<sup>12</sup>) granting full professorship. This is how the traditional service transfer between education and research system takes place: professors offer scientifically based teaching

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<sup>12</sup> In German-speaking academia, the specific post-doctoral qualification required is the *venia legendi* (Habilitation) which confers the right to teach at university.



services in exchange for research resources (Braun and Schimank 1992: 324). However, this only holds true for the traditional academic universities which are expected to offer scientifically grounded teaching and which in turn are able to produce their own scientific personnel by means of the traditional academic career via a doctorate.<sup>13</sup> And most importantly, the education system draws on the social prestige of the research system, whereas research again benefits from the status of university scholars also active in teaching. This mechanism to which Luhmann (2009) refers to as the “multiplication of prestige” further explains the specific system coupling that is characteristic for academia:

Die Erziehung partizipiert am Prestige der wissenschaftlichen Forschung, während diese Forschung ihr gesellschaftliches Prestige nicht zuletzt der Tatsache verdankt, dass sie von Akademikern betrieben wird. (Luhmann 2009: 218)

Furthermore, this specific legitimacy of the research system through the scientific teaching that is characteristic in higher education essentially depends on the organizational coexistence where research and teaching are differentiated merely according to the specific situation (education function in lectures, counselling, examinations; research function in congress participation, publications, etc.). If the two subsystems were differentiated as to roles and organization (e.g. teaching professors vs. research professors, or teaching departments vs. research units), each could be evaluated separately by an external authority (Braun and Schimank 1992: 328).

This specific form of coexistence of research and teaching in the higher education system does not seem to apply in the same way to the non-university sector and therefore not to the universities of teacher education either. The education system is not dependent on the research system to provide a scientific foundation for its teaching in the same way as universities. Teacher education has always been considered a part of the education system, and the need to scientifically ground the education and training of teachers is a rather new claim and far from being commonly accepted.<sup>14</sup> Therefore teaching and research do not normally coexist as closely as is characteristic for the universities, a fortiori since the UTEs have only recently been assigned a research function. Accordingly, we usually observe that research within teacher education is organizationally differentiated from teaching and established in separate departments. This solution might entail greater autonomy of the research system, but fails to resolve the legitimacy issue. In this respect, it can be assumed that attributing a research

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<sup>13</sup> This aspect is also reflected in the fact that the title “professor” of a teacher at a UAS or a UTE is not the same as that of a university teacher. “Professor” at a university represents a hierarchical position within the organization but with the important proviso that this position is bound to a specific recruitment procedure, the academic tenure procedure, which is based on well-defined academic qualifications (e.g. the *venia legendi* or an equivalent post-doctoral qualification), whereas the title “professor” at non-university HEIs represents a functional attribute describing salaried employeeship for which the academic qualification requirements are lower and not the sole criteria.

<sup>14</sup> Cf. the discussion of the teachers’ professionalization, chapter 5.3.1, page 71.

function to the newly created institutions of teacher education implies inherent conflicts as to the new role and function as well as to the legitimation of research within teacher education. Consequently, the organizational development of the UTEs as well as institutional and structural outcomes at the system level will also depend on the strategic interplay of the different actors involved. In order to investigate these mechanisms, we need to take an actor perspective as well.

## **2 Research approach**

### **2.1 A governance perspective**

In emphasizing the interdependent relationships between actors and system, the above-elaborated understanding of the dynamics in higher education policy refers to the concept of governance – governance employed as a conceptual approach, an analytical concept with a specific perspective of societal reality as it is commonly used in political science (see, for example, Leresche 2001; Enders 2004; Mayntz 2006; Benz 2007). Thus, Mayntz in particular (2006) argues that governance theory as an analytical approach differs substantially from classical theories of government and rather represents a new paradigm of an actor-centred approach, drawing heavily on institutionalism:

Am Ende umfasste der Begriff Governance alle wesentlichen Formen der Handlungskoordination. Das eigentlich „Politische“, das interventionalistische Handeln tritt dabei in den Hintergrund: nicht die Intervention, das Steuerungshandeln von Akteuren, sondern die wie auch immer zustande gekommene Regelungsstruktur und ihre Wirkung auf das Handeln der ihr unterworfenen Akteure steht nun im Vordergrund. Die Governance-Perspektive geht damit nahtlos in eine institutionalistische Denkweise über. (Mayntz 2006: 14)

The perspective of governance entails a broad understanding of the various forms and mechanisms for the coordination of collective action. An analytical approach to governance refers to the logic of action in allowing for the causal relationship between structures (i.e. institutions and power relations), actors' interests and interactions (Benz et al. 2007: 14). Consequently, for the study of multi-level and multi-actor phenomena, as higher education policy can be characterized, the governance approach has proven to be a very useful concept.

## 2.2 An actor-centred approach

The macro-perspective of the system does not provide explanations as to the strategic behaviour of the actors within a given system. Therefore, if we want to study structural processes, the institutional development at the meso- and the micro-level, we need to focus on the actors and their constellations. I will therefore argue in favour of an actor-centred approach. This is the only means enabling me to deal with purposeful actors (individual as well as collective actors) operating within given actor constellations and an institutional setting (Scharpf 1997: 44).

The purpose of the following research project is to analyse changes in higher education policy, their consequences on the meso- and micro-level, and, conversely, the effects of micro-level interactions on the structural level. In this sense, the policy analysis proposed represents what Scharpf calls “interaction-oriented policy research” (Scharpf 1997: 11), that is, a policy analysis focusing on the strategic interaction between several actors, all of whom have their own individual and institutional self-interests, their own normative preferences, and their own resources (ibid.: 11). Importantly – and Scharpf emphasizes this point –, within such an actor-centred approach, the analyses at the meso- and macro-level are to be founded at the micro-level (Scharpf 1997: 12). Accordingly, we must identify the key actors operating within the higher education system and in particular within the subsystem of teacher education. Furthermore, we must assess their general orientation and their interest and identify possible conflicts this could cause. For instance, which actors have an interest in a stronger research orientation, and what does this mean for the other actors bound to a traditional image of teacher education? With regard to higher education policy analysis, Rhoades (1983) argues in a similar vein:

[...] the key to understanding functional differentiation in systems of higher education lies in examining the nature, belief systems, and power of, and the relationships and struggles between, the various groups that have input (either direct or indirect) into systems of higher education. (Rhoades 1983: 286)

In general terms, we can identify four different actors or groups of actors: (1) the teacher educators, i.e. the core staff of the institutions of teacher education; (2) the organization itself as a corporative actor, i.e. the individual institutions of teacher education; (3) the professional organizations and associations representing the teachers in the field; and (4) the clients of teacher education, i.e. the students. All of these groups of actors have to adapt to the new reference of a higher education institution with a new research function and a mission of enhanced research-based teaching. Moreover, there are the political and administrative actors governing within higher education and in particular in teacher education. Due to the federal organizational structure of the Swiss political system, the political instances are further divided

into cantonal and federal respectively intercantonal authorities and councils of coordination at the national level (Perellon 2001).

Among these, assumedly, there are several actor groups with a pronounced interest in seeing teacher education upgraded with an enhanced research orientation, such as for instance those teacher educators who derive their professional identity from their scientific career, their research output and, to a lesser extent, their teaching. With this identity, however, they presumably clash with those teacher educators who identify with the former, traditional education function of teacher education. The teacher educators interact in a particular way with their students. The students, in systemic terms the clients of the institutions of teacher education, have their interests and own expectations as regards the organization. In the event that these differ from or are not consistent with the interests of the teacher educators, this may upset the system.

Based on the institutional and organizational specificities, a clear priority of the educational function is assumed to result. This can even be observed with the traditional universities (Braun and Schimank 1992), but with the case of the institutions of teacher education, the predominance of the teaching function is even more obvious. First, for the political authorities, the UTEs' primary mission is to train future teachers. Second, since the regulation of demand for higher education is assumed by the political authorities (which determine access criteria) and given that the UTEs cannot really select their students, the institutions have to adapt flexibly to changing student demands and provide the required teaching.<sup>15</sup> Third, students' interests are focused on occupational education and preparation for the future occupation, and students' and their parents' concerns carry more weight with the political authorities than the researchers' interests. And fourth, powerful associations and professional organizations (e.g. the teachers' professional associations) will be much more sensitive to shortcomings and problems concerning teaching than to problems related to the research mission. This explains why the claims of the educational system tend to be viewed as highly important and why they can ignore the demands of the research system (Braun and Schimank 1992: 329)<sup>16</sup>. The question therefore is what this means for the development of a new mode of teacher education where research ought to be part of the mission and therefore integrated into teaching.

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<sup>15</sup> Furthermore, the political authorities can always assign the UTEs new tasks, such as the training and qualification of career changers in situations of teacher shortages, in which case the UTEs would have to develop new, suitable study programmes on the spot.

<sup>16</sup> Braun and Schimank (1992) conclude: „Die Ausbildungsansprüche an die Hochschulen als Bestandteil des Erziehungssystems sind aus all diesen Gründen so gewichtig, dass sie sich in der Regel über die ausserwissenschaftlichen Leistungsansprüche und erst recht über die innerwissenschaftlichen Ansprüche an die Hochschulen als Bestandteil des Forschungssystems hinwegsetzen können“ (Braun and Schimank 1992: 329).

Given these theoretical considerations, I conclude that I need the following for my analysis. On the one hand, I require a system-theoretical perspective which allows me to conceptualize the institutions of teacher education as the organizational basis of a specific sector of the education subsystem and to deal with the typical conflicts between the education system and other functional systems. On the other hand, I want to provide a micro-foundation of the structural effects that I am studying. Therefore, I also need a clear actor concept and a framework to analyse different actors' strategies. This having been said, I shall argue that an analytical framework grounded in actor-centred differentiation theory (Mayntz 1988; Schimank 2005) would best suit this purpose. This type of approach will enable me to retain the system-theoretical perspective while focusing on actors and groups of actor within their specific constellations. The framework is based on actor-centred institutionalism, which proceeds from the assumption that social phenomena should be explained as outcomes of interactions among actors but that these interactions and outcomes are shaped by the institutional setting (Scharpf 1997). Furthermore, this approach will also take due account of the multi-level structure of teacher education with actors operating at the micro-level (e.g. teacher educators, students) and at the meso-level such as the organizational, institutional and political bodies (e.g. the individual HEIs, the sector associations, the political authorities, or the departmental conferences at the national level), all with their respective cognitive and normative orientations at the macro-level of the subsystem (Schimank 2005).

### **2.3 Research questions**

The goal of this thesis is to assess recent developments of the new institutions of teacher education in terms of organizational and institutional change as well as structural changes in the higher education system as a whole. How has teacher education been integrated into the Swiss higher education system, and how are the actors dealing with this change? The research questions thus focuses on the system-actor dynamics resulting from the integration of teacher education into the higher education system. Deriving from this overall question, the analysis asks how the institutions of teacher education have adapted to the research function. Another central question concerns the position that the new institutions aspire to take up within the higher education system which will lead, on a general basis, to the issue of differentiation. Thus, the analysis strives to describe the current structure of the higher education system in terms of differentiation and convergence. Finally, conflicts and controversies within this structural process shall be identified and discussed. Accordingly, the following research questions shall inform my analysis:

- 1) How do actors' constellations and institutional settings affect the integration of the teacher education into the Swiss higher education system? And how can they explain certain structural outcomes of the system?
- 2) How are the universities of teacher education adapting to the additionally assigned research function? And what does this mean for the identity of the institution?
- 3) Where are the universities of teacher education positioning themselves within the higher education system?
- 4) What does this development imply in terms of differentiation and convergence within the higher education system? Which are the factors enhancing or impeding differentiation?
- 5) What conflicts have these developments generated within the system?

## 2.4 Research strategy

As I have explained above, these questions shall be examined within the framework of a policy analysis using an interaction-centred approach (Mayntz and Scharpf 1995a; Scharpf 1997). Accordingly, the analysis will focus on the actors' strategies as well as on the institutional setting and the systemic orientations guiding their operations. This means that the empirical analysis must feature a multi-level approach covering the different levels of the subsystem in question such as the macro-level of the subsystem-specific orientations, the meso-level of the institutional setting as well as the micro-level of the actors' strategies. Consequently, for the purpose of analysis, I will disaggregate the system of higher education along structural and organizational criteria<sup>17</sup> and will therefore start by scrutinizing the national, cantonal and regional levels of political authorities and governance, where the focus will lie on the strategies of different actor groups within the specific institutional setting of teacher education (i.e. politics, government, intermediary bodies, teacher education professionals, teacher associations, HEIs, etc.). Second, I will focus on the organizational unit, i.e. the individual institution of teacher education within its specific environment; and third, I will examine the primary clients of the system at a micro-level, i.e. the higher education students with their individual educational choices, as they affect the system on the demand side.

My empirical analysis will build on qualitative thematic content analysis based on documentary sources as well as on a corpus of some 30 expert interviews with key actors and representatives of corporate actors within the system. This is the only way to identify actor constellations, assess their interests and strategies, and understand complex processes of higher

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<sup>17</sup> See also Meek (Meek et al. 1991: 455), who suggests that higher education studies should be conducted at different organizational levels.

education policy governance (cf. Ritchie 2003; Bogner et al. 2009). For the research into the universities of teacher education as organizations of higher education, I will rely on four case studies conducted at different UTEs, which take into account their specific environment in terms of political governance, coexistence with other types of HEIs, size and student clientele. These case studies will build on documentary analysis as well as expert interviews. Finally, an analysis of the structural and institutional impact of higher education policy reform on individual students as consumers of higher education will be made at the aggregate level by means of a quantitative empirical analysis based on a representative survey of future students' educational choices (Andress et al. 1997).

With the expansion and differentiation of the tertiary sector, issues of equity and social mobility have shifted away from the question of access to the problem of social selectivity with regard to different types of higher education institutions. Social differentiation within higher education systems therefore represents a major theme that must be factored in when analysing higher education system dynamics (cf. Boudon 1984; Breen and Goldthorpe 1999; Boudon 2009). From this perspective, students' educational choices between different institutional types reflect individual assessments of HEIs. Accordingly, compositional differentiation as to different institutional types affects higher education institutions in multiple ways (e.g. in terms of cognitive orientation, status and reputation, and organizational effectiveness). In this regard, previous research into system differentiation has not, to my knowledge, dealt with the interaction between the system and its clients, namely, the students. As a result, the effects of students' self-selection on the system have been largely neglected in higher education policy analysis. The proposed study will therefore feature a micro-analytical component examining students' self-selection into higher education.

On the whole, my research is intended to feed the debate on differentiation in higher education. Furthermore, I am convinced that my analysis can make a useful contribution in terms of the empirical application of the actor-centred approach to differentiation. And finally, I will demonstrate an innovative methodological approach combining a qualitative policy analysis with an analysis of quantitative data at the micro-level.

## **2.5 Thesis structure**

In terms of structure, the thesis is broken down into five parts: introduction, theoretical framework, analytical framework and methodology, empirical analysis, and discussion. In the next section (the first part), which deals with the key concepts and theoretical approaches, I will first introduce the issue of institutional configurations of higher education systems and present

key concepts used in the research literature when dealing with structural dimensions of higher education. In particular, I will discuss categories of system organization and such concepts as diversity, differentiation and convergence. Subsequently, I will present the overall theoretical approach drawing on actor-centred differentiation theory. In a second part, I will, based on this theoretical foundation, develop an analytical framework and deduce hypotheses that shall guide the empirical analysis. Finally, the methodological approach will be explained and discussed.

The third part of the thesis will lay out the empirical analysis. Starting with a policy analysis of the recent policy changes in the Swiss higher education system, I shall discuss in greater depth the creation of the UASs and in particular the UTEs, leading to an assessment of the higher education structure in terms of diversity. After a description of the actual situation drawing on statistical data, four case studies focusing on individual UTEs are presented. The last part of the empirical analysis is dedicated to the micro-level analysis drawing on a quantitative analysis of students' educational choices. I will then conclude my analysis with a comprehensive and comparative analysis in which I endeavour to compile the key findings of the various analyses and discuss them in the light of the analytical framework. Finally, I will close the dissertation with an overview of the findings and an outlook.



# **PART I**

## **CONCEPTS AND THEORIES**



### **3 Conceptualizing structural issues in higher education policy**

#### **3.1 Introduction**

Higher education policy research has been an ever-expanding research field in recent decades, growing internationally and reflecting greater interest in the issue by government and academia. In a review of international comparative research on higher education, Weiler (2008) provides an assessment of the state of the research field, observing the following: first, there has been a general increase in the interest and stronger internationalization; second, the scope of the studies has expanded beyond Europe, North America and Australia; third, a large important share of the studies has been comparative; fourth, there has been a segmentation into different research traditions (in the US, the UK or in Europe) without mutual recognition; and fifth, this research field still lacks its own epistemological identity (Weiler 2008: 522ff.). As a result, higher education research draws heavily on the social sciences, political sciences, educational sciences and economics.

Several attempts have been made to identify the thematic core segments of higher education research. Weiler (2008) identifies three broad clusters around the issues of equity, institutionalization and content. With regard to the issue of institutionalization, aspects such as the expansion of higher education, the scientization as well as institutional diversity are dealt with (Weiler 2008: 529). Teichler (2008a) provides a classification of research in higher education covering four main areas: knowledge, process, organization, and structure (Teichler 2008a: 350). However, under the category of structure, he then subsumes quite different issues such as the shape and size of the system, enrolment and access as well as diversity (*ibid.*). Higher education research focuses on organizational and structural aspects, whether in a descriptive manner or from an explicative analytical perspective. Notably, aspects such as size, institutional differentiation, selection and access are highly politicized issues reflecting the outcomes of political compromises between different educational goals such as academic quality, efficiency and equity (Teichler 2008a: 351).

For my purpose, however, I shall limit myself to policy research on higher education and therefore not take into account philosophical, pedagogical and psychological studies dealing with knowledge processing, disciplines or teaching and learning in higher education. Within the research in higher education policy, I would then identify first a meso-level, covering institutional and organization aspects at the level of the individual HEIs. These studies deal with issues of management, funding, or organization; with effectiveness and efficiency ques-

tions of the individual HEIs, with power relations and organizational development. On a second level, I would identify macro-level studies with a system perspective. These latter can be further subdivided into three categories: structure, governance and system performance. Studies on the structure of higher education describe and analyse structural aspects of the higher education system such as the size, the institutional landscape and configurations, as well as dynamic developments like differentiation and convergence. The term “governance” is used to describe research on aspects such as controlling, funding, steering or accountability, and on a third level, I categorize research on the system level evaluating the performance of the system in terms of effectiveness, efficiency and equity.

The issue of differentiation and convergence would thus have to be considered as part of structural higher education policy research describing and analysing the structure of higher education systems. However, the three categories of system-level research areas – structure, governance and system – are related and can therefore be investigated using a more comprehensive approach, when focusing on the effect of a specific institutional configuration within the higher education system or the equity of the system. This was precisely the question which a group of scholars raised in the early nineties. They identified a lack of research on comparative higher education policy change, in particular the relationship between policy outcomes and the structure of higher education systems (Meek et al. 1991). A concrete research agenda was launched with the goal of examining different ways in which policy initiatives in higher education were shaped within different national contexts and how they structured higher education systems. The following research question was formulated (Meek et al. 1991: 453):

In what ways are the key actors who are involved in higher education policy trying to change the internal dynamics and the structure of higher education systems, and how do the characteristics of these systems accommodate or deflect the attempts to generate change? (Meek et al. 1991: 453)

Conceptually, change in higher education was perceived from an actor-centred approach, emphasizing the need to focus on the dynamic interplay between actors whose actions and interests are themselves shaped by the structure of the system as well as by their position within it. Higher education policy was thus conceptualized as the result of “the interplay between the key actors involved in issues relating to the structure, function, and character of higher education systems. Policy in this sense incorporates the dynamics that shape a higher education system through the interactions of the various (groups of) actors who can be identified at the different levels within the system [...]” (Meek et al. 1991: 455).

In the following section, I shall present key terms and concepts required to approach organizational and structural aspects of higher education systems. As for the term “higher education system” itself, I will use it in a general way to designate the body of institutions of

higher education, regardless of specific type. The terms describing higher education as a whole have changed over time. With the development of the higher education system, the term “university system” was extended to “higher education system” and subsequently to “tertiary education system” (Teichler 2008a: 356). I will use the term “higher education system” and “tertiary education system” as synonyms.

## **3.2 The structure of higher education systems**

The question of how higher education systems are organized has interested numerous researchers. The description of the “patterns” or the “institutional configuration” of a higher education system (Teichler 2008a: 352) reflects a long-standing tradition in the higher education literature. In the following section, I shall deal with structural issues and try to provide an overview of the most commonly used terms and concepts. I will first describe the general dimensions of system organization, then will review some attempts of classification and typology, and discuss key terms. Subsequently, I will come to the dynamic aspects of higher education systems’ structure. Regarding the system development, processes such as differentiation and convergence will be discussed. Finally, theoretical approaches for explaining developmental trends within national higher education systems as well as between systems will be presented.

### **3.2.1 Describing and classifying higher education systems**

Although classification schemes aim at international comparison, any attempt to classify higher education systems is bound to the specific national system it uses as its concrete case. Since higher education systems vary considerably in terms of structure and curricular content, comparisons between national systems are difficult. Types of higher education institutions as well as their relations among them must first be carefully considered for international comparisons.

Using the American higher education system as an example, the American sociologist Trow (1974) proposes a classification based on vertical differentiation into research universities (offering the full range of academic degrees); colleges (focusing on teaching and the granting of bachelor and master’s degrees); community colleges (granting non-academic degrees), and open universities (serving older age groups and practising open access). This taxonomy based on the research profile of the HEIs is frequently used in the USA (cf. Jones

2009). A similar classification would be the characterization of the research universities into doctoral-granting HEIs and other HEIs.

On a more general basis, higher education systems are described using broad concepts relating to the duration of study programmes, such as for instance short-cycle higher education, to the broad contrast between general and vocational higher education, or in terms of the selectivity of access, such as elite, mass and universal higher education (Trow 1974, 2006; Teichler 2008a: 354f.). In European countries, the institutional differentiation is generally limited to the distinction between vocational training and university education. This differentiation often serves as a basis for the common binary structure (Bonaccorsi and Daraio 2007).

On the international level, UNESCO introduced a standardized classification scheme for describing national education systems, the International Standard Classification of Education (ISCED). The 1997 classification system puts educational programmes in six levels ranging from pre-school education to doctorate programmes in higher education (UNESCO 1997). However, this classification was primarily developed for collecting statistical data on national education systems on an internationally comparable basis, not classifying higher education institutions. Nevertheless, the distinction between tertiary A and tertiary B programmes (i.e. ISCED 5A and ISCED 5B) is interesting as it systematically describes the structure of national higher education systems. In order to describe the situation within national higher education systems, the ISCED-classification subdivided the level of tertiary education into two sectors: the different programmes at the tertiary level are classified on the basis of the general distinction between theoretical and practical respectively applied orientation. Moreover, aspects such as duration of studies and degree structure are considered (UNESCO 1997: 35).

Three complementary dimensions are needed to subdivide this level: 1) the type of programmes dividing programmes into theoretically based/research preparatory/giving access to professions with high skills requirements programmes on the one hand, practical/technical/occupationally specific programmes on the other hand; 2) the cumulative theoretical duration in full-time equivalence; and 3) the position in the national degree or qualification structure (first, second or further degree, research). Combining these three independent dimensions is the only way to capture the broad variety in the provision of tertiary education. The choice of the combination depends on the problems to analyse. (UNESCO 1997: 43)

Within the tertiary A sector, further classification can be made on the basis of the study offer at ISCED-level 6: Thus, the PhD-granting HEIs are distinguished from other institutions.

Generally, classifications of higher education systems identify whether there are any post-secondary higher education institutions outside the university sector, for it is the non-university sector which varies most between countries. In describing the function, role and status of non-university higher education institutions and assessing their relationship to universities, different

models of higher education organization are identified, such as university-dominated systems, dual systems or binary systems (OECD 1973; Scott 1996; Kyvik 2009). Clark (1983) identifies systems with multiple sectors as the “most common pattern” observed in higher education:

Typically, the main sector is a set of universities, with one or more ‘non-university’ sectors organized around technological-technical-vocational instruction or teacher training, or both, but occasionally organized around esoteric functions prized by one or more departments of the central government. All sectors are financed primarily by the national government. (Clark 1983: 54)

A “trinary” system<sup>18</sup> (Meek et al. 1996: 221) is described for instance with regard to the Australian higher education system, universities, colleges of advanced education and colleges of technical and further education. The German example illustrates a more diversified non-university sector. Higher education in Germany is organized in a university sector (comprising classical universities and technical universities); and a non-university vocationally oriented higher education sector with universities of applied sciences (called *Fachhochschule*), originally created merging engineering and commerce schools upgraded from the secondary level. It is also possible to identify a third sector comprising institutions of teacher education, and a fourth sector with comprehensive institutions (called *Gesamthochschule*) which are a combination of universities and universities of applied science (Teichler 1993).

Another approach to classify the system is by distinguishing HEIs by their age. Thus, Clark (1983) identifies different types of HEIs for Britain: First, different types of universities such as Oxford and Cambridge, the University of London, the nineteenth-century civic universities and the new universities built after 1960; second, technical institutions either of university status or organized as polytechnics; and third, teacher training colleges (Clark 1983: 58; Moodie 2009).

Likewise, Scott (1995) provides a further classification of the UK higher education system based on the HEIs’ history, disciplinary orientation and other characteristics. The non-university HEIs were classified as “larger multi faculty colleges, liberal arts colleges which developed from teacher training colleges, mixed sector colleges which offer further and higher education, and specialised colleges such as creative arts academies and agricultural colleges” (Scott 1995: 46). In a more elaborated and empirically based approach, Tight (1996) re-examined Scott’s typology. Based on factor analysis using a great number of variables on enrolments, disciplinary mix, funding level, student demographics, etc., he generated 16 groups distinguished principally by size, study level, and discipline spread. This method led to a much more precise typology of HEIs in the UK, but surprisingly, this typology reproduced

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<sup>18</sup> That is, a system containing three distinct sectors Meek et al. (1996: 221).

the broad classical distinction between old universities, new universities, and colleges, although these aspects were not used as explanatory factors (Tight 1996).

The distinction between a university and a non-university sector is made by classifications based on types of HEIs such as university, college or polytechnic, and institute of further education. However, there is a great variety of different types of HEIs, and any typology has to rely on some sort of criteria such as the type or length of study (e.g. short-cycle programmes), programme orientation (e.g. general or vocational), the grade level (e.g. undergraduate, graduate), the research profile (e.g. basic or applied), etc. (Clark 1983; Scott 1996).

For more complex structures of higher education systems, the distinction between a university and a non-university sector does not suffice. For example, the Carnegie Foundation for the Advancement of Teaching provides one of the classical typologies of American higher education. This classification uses a combination of administrative criteria such as the level of degree offered, size, PhD production, research funding, mission, etc. In its 2000 edition, the foundation uses five main categories for classification: doctoral and research universities, master's (comprehensive) colleges and universities, baccalaureate (liberal arts) colleges, associate's colleges and specialized institutions (Carnegie Foundation 2001)<sup>19</sup>. Likewise, (Moodie 2009) proposes a classification of US tertiary education institutions containing four broad sectors called "tiers": world research universities, selecting universities, recruiting universities, and professional institutes. Interestingly, this classification comes quite close to the well-known taxonomy by Trow from the 1970s, differentiating between research universities, colleges, and community colleges (cf. Trow 1974, Trow 1984). Common to these classifications is the fact that they rank HEIs according to a more or less explicit value judgement. Thus HEIs are ranked on the basis of their graduates' relative position in social and economic hierarchies (Moodie 2009).

Another central characteristic of higher education systems is the importance given to the organizational mode in terms of disciplinary and the institutional orientation. Clark (1984b) uses the term "master matrix" to describe the fact that academics have overlapping memberships, i.e. they belong to their discipline and research field as well as belonging as members of their university to a specific interdisciplinary organisation (Clark 1984b: 112ff.). The relative weight of HEIs given to the disciplinary versus the institutional, organizational orientation varies among national systems, types of HEIs and individual institutions of higher education. The stronger the research orientation of a HEI, the more the specialization prevails and the more discipline-centred its organizational structure. And on the other side, the typical American community college can be characterized by a comprehensive profile, an interdisciplinary

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<sup>19</sup> This classification follows Trow's approach to a certain extent (Trow 1974).



membership of its personnel, and a broad undergraduate teaching orientation. Similarly, the importance of the disciplinary organization mode varies with regard to the profile of a HEI in terms of liberal education versus specialized education (Clark 1984b). Higher education systems can thus be described by the form of the specific matrix, i.e. their concrete relation between disciplinary and institutional organization.

### **3.2.2 Functional and hierarchical structures of higher education**

The integration of higher education systems affects the relationship between different higher education institutions. Bleiklie (2005) distinguished two broad concepts of system organization: Higher education systems can be characterized by hierarchical or functional order. In hierarchically, stratified organized systems, HEIs are rank ordered according to their position within a vertical arrangement. Their position depends on a number of standardized criteria by which all HEIs are evaluated, most commonly degree levels. Consequently, doctoral-granting HEIs would be at the top of the hierarchy, whereas institutions offering short-cycle Bachelor's degrees or professional Bachelor's degrees would be at the bottom of the hierarchy. Functionally ordered higher education systems on the other hand, are characterized by division of labour resulting in a horizontal organic order. HEIs have different missions and functions in which they specialize, such as the education and training of teachers, nurses, engineers and so on. (Bleiklie 2005: 32f.).

Hierarchically organized higher education systems thus describe a vertical form of differentiation, whereas functionally organized systems represent a horizontal form of differentiation (Clark 1983: 53). The division of higher education systems into institutional sectors can take many forms, which range along a continuum from simple to complex. Divisions also vary as to whether they were imposed by central government or emerged as the products of local and regional action. In most systems, isolated sectors have predominated, with a particularly sharp line between the 'university' and 'non-university' system (Clark 1983: 62; Kyvik 2009).

The vertical arrangement of institutions and sectors consist in a hierarchy of sequence, i.e. the placement is based on the level of task, and a hierarchy of status, in other words, a ranking based on prestige. The result is an institutional hierarchy, a prestige ranking of HEIs and sectors based primarily on perceived social value of graduation, depending on where graduates are placed in the labour force. Different levels of occupational prestige that graduates attain in the labour force lead to a virtually automatic assignment of prestige by the public back to the education institutions. Thus, for example, the prestige of doctors, teachers or secretaries will be assigned, respectively, to universities, four-year colleges, and two-year colleges (Clark 1983:

63). Clark concludes: “Parity of esteem among types of institutions rarely if ever obtains. [...] sectors do not remain innocent of status differences. Occupational and social positions are ranked by the public as well as by incumbents; and institutions that place their graduates differentially are assigned different levels of prestige” (Clark 1983: 63). However, the more the different sectors are separated, the more status ranking prevails: “When sectors designed for technical training and teacher training do not have the potential for transferring their students into the university sector, status rankings become more clear-cut and severe” (Clark 1983: 64).

However, Bleiklie (2005) underscores that both types of system organization – hierarchical and functional – are not mutually exclusive; rather, they occur in different combinations that considerably vary across countries and cultural tradition: “In real higher education systems, hierarchy and specialization are likely to be combined in some way, and actual orders may therefore be more or less hierarchical and more or less specialized” (Bleiklie 2005: 33).

### 3.2.3 The concept of diversity

The classification of higher education systems addresses the issue of diversity by providing a description of the system’s structural patterns in terms of difference. The term diversity, however, does not refer only to the institutional configuration of the higher education system<sup>20</sup>. As has already been mentioned above, the concept of diversity in higher education can be used to refer to several other dimensions, such as ownership, type of programme and degrees awarded (Teichler 2008a). In the following section, the concept of diversity shall be defined and discussed more in detail.

Generally, diversity describes any form of difference between entities of a specific system. In higher education research, however, the term has to be further delimited by different criteria in order to describe or measure diversity. Diversity is usually applied with respect to institutional aspects of the higher education system. In a major study on the US higher education system, Birnbaum (1983) provides an analysis of institutional diversity based on an elaborated classification of different dimensions of diversity (Birnbaum 1983: 37ff.). On a first level, he distinguishes between internal and external diversity, referring to differences within institutions respectively between institutions. On a second level, he further classifies external diversity into the following seven categories: *Programmatic diversity* refers to differences of the degree level (graduates or undergraduates programmes), degree area, comprehensiveness or

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<sup>20</sup> Huisman (1995) restricts the term diversity to describe “the variety of *types* of entities within a system” [my emphasis] (Huisman 1995: 51).

mission of the offered programmes.<sup>21</sup> *Procedural diversity* characterizes HEIs depending on how teaching is delivered (e.g. by lectures, seminars, distance-learning and other forms) or how research or other services are practised. *Systemic diversity* refers to “differences in institutional type, size, and control” (ibid.: 45). The analysis of systemic diversity has motivated numerous researchers in higher education, as reflected by the multiple attempts at categorizing HEIs by institutional type (see chapter 3.2.1). *Constituent diversity* characterizes HEIs as to their student body regarding sex, ethnic origin, socioeconomic status, academic ability and other variables. *Reputational diversity* describes different HEIs as to perceived status. Status and reputation are generally related to such aspects as selectivity, program quality and labour market outcomes. *Values and climate diversity* describe differences in the social climate among students. Finally, *structural diversity* relates to differences in the external structure of HEIs, describing the degree of autonomy and whether they exist autonomously as a single unit or as an integrated part of a larger HEI (Birnbaum 1983: 53). There have been numerous further attempts to classify higher education systems and describe system diversity. But most categories of institutional diversity reflect Birnbaum’s classification to some extent. Other dimensions of diversity have been described relating to other dimensions, such as instance the effectiveness of HEIs, professional autonomy or the outcomes of graduates (Huisman 1998: 84). Yet the qualification of the research and teaching personnel substantially affects quality and prestige of a HEI. Consequently, differentiation by the academic personnel would certainly be justified. However, there are no attempts in this direction.

Yet policy debates on the structure of higher education most often refer only to general concepts such vertical diversity (hierarchically organized, stratified higher education systems) or horizontal respectively functional diversity (organization according to profiles, study programmes and institutions). Furthermore, it matters whether higher education is organized according to formal diversity (e.g. by institutional types) or informal diversity (e.g. by reputation and status). (Teichler 2006b: 266)

### 3.3 Structural dynamics: Differentiation and convergence

The growing interest of policy-makers in the concept of diversity in higher education from the 1970s onwards is usually explained by the sharp expansion of higher education enrolment in most European countries. The systems were forced to adopt some sort of a broad sector of mass higher education in order to “protect elite higher education” (Teichler 2008a: 351). The

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<sup>21</sup> Institutional diversity can easily be characterized by defining HEIs according to their highest degree offered. If for instance BA colleges expanded their programmes offered to include MA and PhD courses, the institutional diversity would decrease (Birnbaum 1983: 41).

idea of diversification became more popular, also due in particular to normative beliefs in the uses of diversified systems. These widely shared beliefs were as follows: expansion of the higher education system was necessary for economic growth; system expansion was tied to diversity; and above all that diversity as such was beneficial for all actors involved (Teichler 2008a).

Birnbaum (1983) provides arguments in favour of diversity based on institutional, societal and systemic needs. First, students with diverse backgrounds, interests and academic achievement need different institutions in terms of orientation, programmes and academic demands. This would, as his argument goes, enhance institutional effectiveness: “[...] the effectiveness of the system increases as institutions differentiate and place primary attention upon specific missions and goals.” (Birnbaum 1983: 5) Second, diversity would also be in favour for societal purposes: Increasing opportunities for higher education would enhance social mobility. Diversity would also better serve the political needs of interest groups, such as religious or fundamental groups, industry sectors or specific local populations. Furthermore, diversity would permit both elite and mass higher education. And third, Birnbaum argues that diversity is important for the stability of the system as a whole. (Birnbaum 1983: 10ff.)

In the light of the growth in higher education enrolment rates, the structure and organization of national systems were revised and discussed. With the normative statement that diversified higher education systems were superior to homogeneous systems, the focus of policy and research is on the development of higher education systems. Generally, two opposing structural processes can be identified in the development of higher education: There is a trend towards diversity and specialization (differentiation) on the one hand, and a tendency towards standardization and integration (convergence) on the other. The central questions are thus: How diverse are national systems of higher education, and how diverse should they be? A further focus lies on the issue of the processes of differentiation and explanatory factors: What are the causes and effects of differentiation? Finally, it should be kept in mind that processes of differentiation in unitary systems differ fundamentally from processes in dual or binary systems. Whereas homogeneous unitary systems tend to diversify due to rapid expansion in terms of students, other systems become more diverse due to the integration of upgraded sectors of post-secondary education.

The issue of diversity is still salient and attracts the interest of many researchers. Have higher education institutions become more integrated and homogenized and are national higher education systems converging at the international level, or, on the contrary, will diversity increase? These questions are “far from solved”, as Musselin stated in 2003 in her introduction to an issue of the *European Journal of Education* dedicated to an overview and a stock-taking

of recent institutional developments in higher education (Musselin 2003: 334). Whereas higher education institutions are expected to develop individual profiles and specialization and to increase diversity, international trends also point toward integration and harmonization. As a result, more research is required to examine these conflicting forces within higher education; to describe the divergent dynamics, to examine effects and consequences and to provide theoretical explanation backed by empirical analyses. (Teichler 1988a; Musselin 2003: 334; Teichler 2006b).

### 3.3.1 Differentiation: Increasing heterogeneity in the system

In general, the dynamic concept of differentiation in higher education refers to the idea of “establishing or maintaining differences between entities – institutions, programmes, sectors – of higher education” (Huisman 1995: 2). In his seminal work on differentiation and diversity in higher education, Huisman derives the concepts of diversity, differentiation and diversification from the biological sciences and applies them to the field of higher education<sup>22</sup>. In doing so, he emphasizes the distinction between the static and the dynamic dimension. Thus, *differentiation* (or to differentiate) and *diversification* (or to diversify) express the transition of one state to another; a dynamic concept, whereas *diversity* (heterogeneity or variety) is a static concept describing an existing state (Huisman 1995: 16). He, then further distinguished the dynamic dimension: Accordingly, the term *differentiation* refers to the emergence of different or separate parts from a formerly integrated whole. The term *diversification* is interpreted as “the transition to a situation in which the set of objects differs more than at the point of departure” (Huisman 1995: 17). However, when this is applied to the field of higher education, he concludes that the central delimitation would refer to the distinction between the dynamic and the static dimension. Consequently, he defines ‘differentiation’ as follows:

I propose to reserve the term differentiation for processes in which the number of entities of the subject under survey increases [...] and for processes in which new entities emerge in the system under survey. (Huisman 1995: 51)

Notwithstanding, as regards the focus of my examination of the integration of teacher education into the higher education system, I shall be more interested in a system-level focus. Differentiation is thus understood as a structural process within the system and affecting the

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<sup>22</sup>Huisman makes it clear that the terms cannot be directly transferred from biology to the study of higher education for a number of reasons: First, contrary to biology where the concept of diversity is restricted to communities of organisms, the term of diversity can be applied to different classifiable entities. Second, as to the application of the term differentiation to social events, it is often not clear whether new structures and functions originate from the integrated whole, i.e. come from inside or are introduced from outside the system. Third, whereas in biology organisms cannot change their identity, entities in the social world can and often do change their identity in terms of mission, role, name, etc. Fourth, in social sciences, it is reasonable to describe the degree to what extent certain entities are different or are becoming different in order to assess heterogenizing trends. (Huisman 1995: 19).

institutional configuration. Rhoades (1983) emphasizes the focus on the system, which he then also defines as the unit of analysis:

My interest is in differentiation in terms of splitting up existing functions or adopting new, distinct roles for higher education and in setting up distinct institutions geared to these. My unit of analysis is the system. Differentiation within the system as a whole is considered rather than focusing on the condition of individual institutions. (Rhoades 1983: 285)

As with Birnbaum's classification of the term "diversity", the concept of differentiation can be further specified. Thus, Weber et al. (2010a) in their evaluation of the Swiss non-university sector distinguish between system differentiation, program differentiation and structure differentiation (Weber et al. 2010a: 35). Under *system differentiation*, they understand the fact that higher education institutions are attributed different and separate missions. Higher education institutions are also different with regard to regulation and control. The goal of such a strategy is to establish different types of higher education institutions. *Program differentiation* further describes a structure of higher education where different higher education institutions practise some sort of division of labour. This is the situation when particular disciplines or studies are offered only at certain HEIs. In Switzerland, for example, this is the case with technical and engineering studies that are taught only at the Federal institutes of technology. Finally, with *structural differentiation*, the authors describe differences regarding the body of higher education institutions (e.g. private vs. public) or the organization of the HEIs.

### **3.3.2 Convergence: Tendencies towards homogenization**

Contrary to the advocates of a general tendency towards further differentiation of higher education systems (cf. Clark 1983, 1996), several authors argue that higher education systems would rather tend towards a reduction of diversity. Systems would become increasingly similar and structurally more integrated (Birnbaum 1983; Rhoades 1990).

#### ***Academic drift***

An oft-observed process of system convergence is described using the term of "academic drift". The more systems become integrated and vertical hierarchies dominate, the more "academic drift" occurs. This is the tendency of lower-status institutions to imitate the more prestigious HEIs, which as a rule are usually those characterized as being more academically oriented, more selective and having a stronger research focus: "Highly valued institutions may sit astride the whole structure. As they do so, they commonly generate strong tides of academic drift, with other enterprises imitating and attempting to converge upon their ways" (Clark

1984b: 119). Consequently, lower status HEIs typically seek to enhance their research profile (Neave 1979, 1983; Clark 1983)<sup>23</sup>. Processes of academic drift are characteristic for many higher education systems. They have experienced an extension of the study programmes in terms of duration; curricula have been complemented by more theoretical parts; and academic staff is increasingly engaged in research (Kyvik 2009: 135).

Bleiklie (2003) argues that the ongoing integration processes that are taking place in many European higher education systems will lead to the emergence of a hierarchical order. Organizational integration implies standardization and uniform principles as to access, degree, or career structure. System integration, modularization and standardization open up attractive opportunities for non-university institutions with the ambition of becoming academic occupational institutions (e.g. nursing, social work, and teaching). Depending on national regulations, these institutions can adopt similar evaluation criteria as the universities and for instance upgrade their course programmes. The integration process also implies that public authorities increasingly interfere in the organization of the higher education system. Thus, his general hypothesis is that national higher education systems in the Western world have moved from a specialized, functionally organized regime towards a stratified and hierarchically organized regime, where institutions are evaluated and positioned relative to common criteria (Bleiklie 2003: 343).

This process is tending to blur the clear distinctions between categories of HEIs such as research universities, colleges and vocational specialized institutions, or between types of HEIs within the same category such as teaching, engineering and nursing. The degree system becomes compatible and degrees become transferable (Bleiklie 2005: 35). However, the individual strategies of HEIs to differentiate themselves and achieve better status will not cease. This is why binary structures will last to some degree, also in integrated comprehensive higher education systems. Institutions will adopt different strategies in order to position themselves favourably in an establishing hierarchy and try to distinguish themselves from others, for example based on informal differentiation. Likewise, Neave (1983) describes a dynamic of integration in non-integrated systems concluding that “[...] all systems of higher education, whether based on the binary model or the multi-purpose model, display a dynamic towards integration. [...] it is evident that to some degree, this phenomenon (the push towards de facto

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<sup>23</sup> The thesis of academic drift was first applied to the introduction of non-integrated higher education in Britain, when Pratt (1997) described the phenomena in an analysis of the introduction of polytechnics. The colleges began to offer external or internal university degrees. Under the new policy, institutions mainly offering degree-level courses were granted university status. As a consequence, the colleges dropped lower-level courses, further expanded their degree-level courses; and were rewarded with university titles. Thus, rather than maintaining their original practice of admitting new types of students who qualified in different ways from their university counterparts, the colleges primarily sought to copy the university model (Neave 1983: 265).

similarity, despite government policies to the contrary) exists even in systems publicly committed to denying it” (Neave 1983: 275).

Rhoades identifies homogenization as the “natural” trend in higher education. He explains the outcome at the system level as a function of the power distribution between the academic profession and lay groups. Thus, academic professionals were against differentiation whereas lay groups (economic associations, trade unions and other) favour differentiation, for it increases the adequacy of the system with a variety of demands. The academic profession pursues its own interests, defends its own norms and values and achieves dedifferentiation. Since the utility function of the educators differ from those of the school administration, the input of laity (and the state) is sometimes necessary to stress other interests in the system and to increase differentiation (Rhoades 1990: 212).

In the American higher education system, for instance, forms of academic drift can be found in the development of public four-year colleges earning the status of a university that could thus move away from the “unwanted role of teaching teachers” (Clark 1983: 221). Clark describes tendencies such as the development from “normal schools to teachers’ colleges, to state college, to state university” for the case of America, Britain or Australia (ibid.: 222). In the British context, academic drift meant expanding the academic potential of the polytechnics (Pratt 1997). In the UK, the differentiation into polytechnics diminished over time with the drift of the polytechnics towards university status.<sup>24</sup> This also happened in Australia, where the non-university sector finally converged with the more prestigious university sector (Clark 1983), or in Norway, where the binary system has been transferred to a partly unified system (Kyvik 2008).

Further, academic drift can also be seen with regard to staffing and recruiting strategies: Thus, non-university HEIs in their recruiting tend to draw increasingly on traditional academic personnel, which considerably reduces the share of those with an industrial background. (Weber et al. 2010a) document precisely this development in the case of the universities of applied sciences in Switzerland (Weber et al. 2010a: 98).

### 3.4 Summary

The structure and organization of higher education systems are commonly described referring to the institutional configurations. Among these, vertical modes of system order are often

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<sup>24</sup> However, the criticism at the time was that with this strategy the polytechnics were excluding categories of students, particularly sub-degree level students and part-time students. This would generally narrow the range of study offers of the polytechnics to the extent of the normal degree courses (Neave 1979: 144).



based on the criteria of the research orientation and the intensity of HEIs, giving preference to a hierarchical structure with research universities at the top of the hierarchy. On the other hand, horizontal or functional modes of system order distinguish between occupational sectors, fields of subjects, types of HEIs or, on a broader level, between liberal, general education and occupational specialization leading to the typical binary divide into a general university and a vocational non-university sector. A stronger research orientation for HEIs is generally accompanied by a greater emphasis on the disciplinary component of the organizational structure. Changes in the structure of higher education systems have raised the question of whether higher education systems tend naturally towards further differentiation or rather towards convergence. – However, the different dimensions of system organization overlap and higher education systems vary considerably as to organizational principles. Consequently, no consensus has been achieved as to the ideal system organization.

With the term “diversity”, structural aspects of higher education systems are described in terms of difference. For the purpose of my analysis of structural change in higher education, I will henceforth refer to the institutional aspects of *diversity*, that is, in particular to the variety of types of HEIs within the system. Concerning the dynamic dimension, I will rather follow Rhoades (1983) and Weber et al. (2010a) focusing on the system level (i.e. with the system as primary unit of analysis) when discussing processes of differentiation. With the term *differentiation*, I will thus refer to processes whereby new institutional types of HEIs emerge in the system. More specifically, I will focus on system and structural diversity, i.e. on differences in the institutional type or control – differences that might over time entail differentiation also in terms of reputation and composition of the student body. In contrast, processes whereby HEIs or types of HEIs become more different shall be described using the term *diversification*, and analogously, processes whereby HEIs or types of HEIs become more similar shall be referred to using the term of *convergence*.

### **3.5 Empirical research on structural change in higher education**

#### **3.5.1 Research within a political context**

The empirical analysis of higher education policy has always been closely related to the prevailing policy debate. As they have compared different structural patterns across countries, scholars have identified different phases of system development (see for example Trow 1974, Teichler 1988b or Scott 1996). Teichler (1988b) identifies three phases since the late 1950s in higher education policy discussions: In the first stage, namely the early 1960s, in most Europe-

an countries, the idea of expanding higher education emerged as a means of ensuring technological and social progress and achieving economic growth.<sup>25</sup> Only in a second phase towards the early 1970s did structural aspects of higher education systems became an issue and be discussed. Subsequently, several countries proposed diversified structures to meet the demands of an increasingly heterogeneous student clientele (Teichler 1988b: 19; Gellert 1995: 16f.).

According to Teichler (2008a), in the first phase, attention was paid to formal elements of diversity, the different sectors of the system and the difference between academic vs. applied programmes, or teacher training programmes vs. regular university programmes. Analyses mapped the system focusing on delimitations between the sectors, definitions of what was to be considered equal or equivalent. Moreover, policy focused on managing system diversity by means of legislation, regulations and conventions (Teichler 2008a: 359). In these debates, the OECD advocated a “soft system of higher education without too clear borderlines and with permeability for the students” (Teichler 2008a: 359). However, there was no general consensus among the European countries as to the desirability of a substantial expansion of higher education.

One of the most widely discussed aspects of differentiation at the time was, according to Teichler (2008), the dimension of institutional or sectoral segmentation, i.e. the establishment of different types of higher education institutions and consequently the creation of a binary type system. This was accompanied by more formal conceptualization and the creation of a consolidated non-university sector (e.g. Polytechnics in Britain, Instituts universitaires de technologie in France, or Universities of applied sciences in Germany). Teichler explains this development by the assumption prevailing at the time, namely, that expansion of the higher education system could be best absorbed by the creation of a second type with a different function and profile that would also attract different types of students. Also, policy-makers believed that introducing a second, different type of HEI would reduce average costs (Teichler 2008a: 360).

Subsequently, the debate focused on the question of whether this new non-university sector would be equal to the universities or whether it would aim at a lower student profile as to student’s competences, intellectual rigour of the programmes. The debate was closed with some sort of a popular compromise formula defining the two types as “different but equal”, which reflected the difference between academic vs. vocational orientation (Kivinen and Nurmi 2010). Teichler (2008) emphasizes that during this period, in contrast to the US, the European countries were rather reluctant with regard to vertical differentiation and the stratification of the systems. Many of them tried to assure a similar level of quality across HEIs and

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<sup>25</sup> For explanations with regard to the expansion of higher education, see Teichler (1988b: 24).

to limit increasing quality differences (Teichler 1988a). Whereas in the US, institutional accreditation provided a minimum standard within a highly stratified system, European countries perceived higher education as the gold standard with the idea that a university degree guaranteed the entry qualification for the highest level of professional careers (Teichler 1988a; Jabłońska-Skinder et al. 1992).

### **3.5.2 Empirical description of structural developments in higher education**

On a general basis, with the terms “unitary”, “dual”, “binary” and “unified systems”, Scott (1996) provides a widely used taxonomy for the description of higher education systems. When comparing different countries, Scott identifies a general tendency of higher education systems to develop from university-dominated systems to binary and then to an integrated unified though stratified system (Scott 1996: 43). Despite national differences, during the last two decades most developed countries have experienced similar developments: a substantial expansion of the higher education sector, increasing skill demand of the knowledge society, and a changed understanding of the purpose of higher education and research, abandoning the idea of elite higher education. In the course of these developments, higher education systems have become more integrated. Consequently, the organization of higher education has moved away from a functionally specialized system towards a more hierarchical and horizontally permeable system where institutions compete for status and prestige (Brewer et al. 2001; Bleiklie 2005). The worldwide introduction of a unitary degree and qualification structure on the basis of the Bologna declaration illustrates this development (Witte 2006: 372)<sup>26</sup>.

Scott (1996) characterizes higher education systems prior to the 1960s as university-dominated. Only universities and university-level specialized institutions were considered as part of the higher education system. Post-secondary education institutions outside the university sector, i.e. schools or colleges traditionally offering short-cycle professional programmes,<sup>27</sup> were not considered as forming part of the higher education sector; rather, they were regarded as belonging to the secondary or the postsecondary level.<sup>28</sup> These short-cycle programmes traditionally included programmes such as engineering, general teacher training, social work and nursing (OECD 1973; Scott 1996: 42; Kyvik 2009: 7).

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<sup>26</sup> Comparing the way European higher education systems adapted to the new degree structure in the context of Bologna, Witte (2006) finds that the differences between institutional types did not change as such, “but the defining criteria became less clear-cut, the types became more similar, and the status hierarchy also flattened somewhat.” (Witte 2006: 372)

<sup>27</sup> Short-cycle higher education can be defined as “post-secondary education of a mainly terminal character designed to train students for middle-level manpower positions” (OECD 1973: 41ff.).

<sup>28</sup> Today, the Italian higher education system can be characterized as university-dominated (Vaira 2003; Kyvik 2009).

The subsequent model of system organization that prevailed in the 1960s and 1970s is characterized as a dual system with two clearly separated sectors: the university sector and a non-university (or college) sector subject to different regulation policies. Though the latter was recognized as higher education, the university clearly dominated. The system was characterized by a college sector divided into many small specialized institutions offering short-cycle professional education programmes (Scott 1996). The development of dual systems in many countries stemmed from the expansion of education systems with considerable growth in student population. Thus, countries tried to address the new challenges of their higher education systems via more diversified systems of higher education and by combining academic and professional studies as well as long and short programmes.<sup>29</sup>

Subsequently, binary systems were established with the formal integration of the colleges into the higher education system. Following a gradual development, most of the post-secondary education establishments were later upgraded to the tertiary level and integrated into higher education colleges, also called polytechnics or universities of applied sciences (UASs). In contrast to the dual system, the non-university sector in the binary system is normally subject to the same regulations as the university sector (Scott 1996: 40). Another difference with the dual system is the fact that in the binary system, the non-university sector is organized much more in the form of comprehensive HEIs, not a large number of small, specialized vocational colleges. Furthermore, these new HEIs or UASs often have the objective of promoting regional economic development (see also Lepori 2008; Kyvik 2009).

As mass education grew at the higher education level, most European countries developed binary systems in order to offer alternative means of higher education study programmes distinct from the universities. Countries with a well-developed vocational education sector at the upper secondary level traditionally had a broader professional post-secondary higher education sector, which was therefore much easier to turn into a formal non-university sector at tertiary level (Teichler 1988b: 27; Kyvik 2009). Typically, this configuration is observed in the United Kingdom (Pratt 1997), the Netherlands (Goedegebuure 1992; Huisman 2008), in Germany (Teichler 1996), in Norway (Kyvik 2008), Finland (Kivinen and Nurmi 2010), or in Switzerland (Perellon 2003; Lepori and Kyvik 2010).

In a unified system, there is no formal difference between a university and a non-university sector. Comprehensive higher education systems embrace both the traditional universities and non-university institutions. All higher education programmes are offered by universities or similar HEIs (Scott 1996: 43). Unified systems usually resulted by upgrading

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<sup>29</sup> Austria's higher education sector can be characterized as dual, though there are tendencies towards a binary system. However, the new universities of applied sciences have been set up but without the integration of the existing establishments in teacher training, health or social work (Pratt and Hackl 1999; Hackl 2008).

polytechnics and colleges to universities; merging universities with other higher education institutions; or incorporating vocational schools into universities (Kyvik 2009). Countries which opted for this path based their arguments on equity. They stated that an integrated comprehensive higher education sector would reduce the risk of status hierarchy and rivalry among HEIs, thereby enhancing equity among higher education students. However, these are often just official statements. The constellations among HEIs in unified systems are far from stable, and status competition often leads to implicit classifications. For, as Teichler (2008a) emphasizes, the most important dimension in integrated systems is the vertical dimension and within this hierarchy, the “apex of the system is crucial” (Teichler 2008a: 352).

Pratt (1997) provides the example of the UK development as an illustration: following the introduction of a new non-university sector with polytechnics, the two sectors were caught up in fierce competition for research resources. This rivalry was seen as doing more harm to the system than providing useful diversity, so the binary structure was finally abolished (Pratt 1997). Pratt explains this primarily by the establishment of master’s and doctoral studies in the polytechnics, and the strong involvement by their staff in research activities. Gradually, the differences between the two sectors diminished. As a result, the polytechnics were finally designated universities in 1992 (Pratt 1997).

Stratified systems, finally, are characterized by a common structure of higher education within which the individual HEIs are differentiated by mission and profile. The system is structured by a hierarchy rather than separate educational sectors. This form of differentiation can result either from a politically induced process or from by market operations (Scott 1996: 43; Kyvik 2009: 11). The typical example is the American higher education system, which is characterized by status differences among the HEIs. The hierarchy distinguishes broadly between universities, liberal arts colleges and community colleges (Kyvik 2009: 11). Each of these categories is then subdivided into a multitude of different further types of HEIs with different status positions.

### **3.5.3 Theoretical explanations and empirical findings**

Beyond the description of structural characteristics of higher education systems and dynamics within the institutional configuration, researchers have tried to provide theoretical explanations for developments in higher education, whether they are to be characterized as processes of differentiation or rather tendencies towards convergence. Thus, drawing on theories from sociology and the political sciences, and more specifically from organization theories and the

new institutionalism, several attempts have been made to conceptualize theoretical frameworks in order to analyse differentiation and convergence in higher education.

Programmatic diversity and the differentiation of disciplines have widely been studied in higher education policy research. An interesting attempt at theoretical explanation was made by Huisman (1998), who developed a theoretical framework based on population ecology (Hannan and Freeman 1977, 1989) and neo-institutionalist organization theory (Powell and DiMaggio 1991). Using the conceptual mechanisms of competitive, coercive, normative and mimetic isomorphism, he assessed programmatic diversity in the Dutch higher education system. Generally, the described isomorphic processes led HEIs to converge and to become more similar. However, as Huisman (1995) observed, institutional diversity did not decrease in the Dutch university system. Yet the author concedes that diversity here was measured only in terms of programmes offered by universities and that government regulations aiming for greater diversity were strong and must have prevented institutions from offering similar programmes (Huisman 1998: 106).

Likewise, higher education policy initiatives trying to promote diversity are identified in the case of several US states. These policy changes involved the centralization of higher education and the creation of a single state agency for accreditation of new degree programmes. An evaluation of these government policies comparing the USA and the Netherlands finds evidence for the case of the USA insofar as centralization policies increased diversity and inhibited programme duplication. However, this effect was not found for the Dutch system, although overall programmatic diversity rose (Huisman and Morphew 1998: 12). Notwithstanding, the political objective of mission differentiation in higher education seems to be rather a normative goal, for there is only scarce evidence of benefits for students. On the contrary, there is research pointing to a worsening in terms of equal access (Bastedo and Gumport 2003).

Further theoretical frameworks focusing on the institutional or system level have been developed by Neeave (1996) and van Vught (1996) in the context of a large research project comparing system development in selected countries (Goedegebuure et al. 1996). Neave (1996) conceptualizes convergence or differentiation as resulting from the relationship between HEIs and the government. Supranational instances such as the EU have to be added to the latter. Thus, he describes HEIs' actions as a reaction to anticipated intervention by the government (Neave 1996). Van Vught (1996) on the other hand, develops a theoretical framework drawing on population ecology (cf. Hannan and Freeman 1977), the resource dependency perspective (cf. Pfeffer and Salancik 1978) and neo-institutionalism (cf. Powell and DiMaggio 1991). From these approaches, he takes in particular the ideas of mutual influences between

organizations and their environment, the competition between organizations for scarce resources, and the concept of structural isomorphism. Based on the conceptual framework, he then formulates general propositions about the relationship between the conditions of the environment and the dynamics of differentiation or homogenization (van Vught 1996).

Applying the theoretical framework to the studies of Birnbaum (1983) and Rhoades (1990), who both observe general convergent tendencies within the examined systems of higher education, van Vught (1996) explains these developments by isomorphic processes where the most successful HEIs are imitated and followed by the others. Further forces inhibiting differentiation are to be found in the influence of academic professionals and their tendency to monopolize higher education and oppose system change (van Vught 1996). Analysing the strategic action of HEIs, another study on the Dutch higher education system finds – in contrast to (1998) – that governmental policy to enhance diversity is effectual and that HEIs tend to converge with regard to study profiles. The authors explain their findings in relation to the concept of isomorphic processes forcing HEIs to adapt to an increasingly homogeneous environment (Maassen et al. 1990: 407).

Comparing Australia, the UK, Finland, Sweden and the USA, that is, countries with an explicit government policy of trying to promote institutional diversity, Meek et al. (1996) find a mixed picture. Whereas differentiation in Australia and the UK is described as having declined in terms of distinct higher education sectors, it is, according to the authors, increasing in Finland as well as to some extent in Sweden (though rather informally) and remaining quite stable in Canada, Germany and the Netherlands (Meek et al. 1996: 216ff.).

In Australia as in the UK, former differentiated systems have been deregulated. In Australia, the federal government, which is funding the HEIs, abolished the binary system consisting of universities and colleges of advanced education (CAEs). Different funding regimes were replaced by comprehensive schemes providing financial resources on the basis of the teaching and research profile of the HEIs. Although this policy change introduced a unified higher education system and encouraged the amalgamation of HEIs to large comprehensive institutions, at the same time, the government also promoted diversification. However, the policy initiatives did not lead to diversification. A significant concentration process took place and HEIs developed imitative behaviour. Universities integrated CAEs and upgraded their courses (Meek 1991), but the greater institutional autonomy was not used for further differentiation. Normative and mimetic isomorphic processes resulted in academic drift, also illustrated for example by the fact that nearly all HEIs are now called universities (Meek 1991; van Vught 1996). Consequently, academic drift, as per the authors' interpretation, depends on the concrete environment and its academic values and norms: "Academic drift is based on the value

which the environment attaches to academic prestige” (Meek et al. 1996: 222). In the Australian case, academic prestige was indeed a key driver for developments within the system.

Scott (1996) argues that neither the British nor the Swedish system was a truly unified example of higher education, for the traditional universities remained in a privileged situation compared with the upgraded colleges and the newly designated universities. This led to a situation where elements of stratification could be seen in both unified and binary systems (Scott 1996: 42). Thus, so-called research universities are often distinguished from other HEIs even though they are called ‘universities’.

In the UK, system integration with the upgrading of the non-university sector took place gradually and was implemented by politics rather as a reaction to the strong rivalry among the sectors. In addition, the polytechnics exhibited strong academic drift. Neave (1996) also explains this development by coercive and normative isomorphism due to common mechanisms of quality control and accountability introduced by the government. The convergence in the British higher education system, the “blurring of boundaries” between the sectors has been further enhanced by the diversification of the universities themselves, which began to offer polytechnic-type courses (Pratt 1997: 309) – in concepts of organization theory: mechanisms of interaction between organization and environment. Summarizing the changes in the case of Australia and the UK, Meek et al. (1996) emphasizes the following:

It was not merely a case of academic drift, but the convergence of policy environments as government relaxed direct control over the non-university sectors and thus its ability to limit or control institutional activities and ambitions. The governments found it difficult to sustain the legitimacy of the “equal but different” philosophies as institutions in separate sectors became more and more alike, while at the same time maintaining a reward structure that clearly advantaged the universities. (Meek et al. 1996: 223)

Canada is characterized by a different socio-political context where the different sectors of higher education are clearly separated and act within distinct and different policy environments (as for instance for the degrees awarded, the student body or the research mission). According to Meek et al. (1996), this is why the binary structure has been maintained in many Canadian provinces. Jones (1991) explains this stability of the non-university sector with relatively homogeneous sectors and a “parity of esteem” between the sectors<sup>30</sup>, a “soft federalism” (in contrast to the Australian higher education policy) without a national policy for higher education (Jones 1991: 584). However, recent developments reveal a continuous increase in diversity leading to a “complex system with multiple institutional types, contested boundaries and complicated inter-institutional relationships”. Thus, the clear binary structure could not be kept

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<sup>30</sup> Coordination between sectors is realized by voluntary inter-sectoral arrangements and not at the system level (Jones et al. 1998).



within the highly decentralized approach in higher education policy. Rather, the heterogeneity of the socio-political environments seems to favour various forms of differentiation at the level of the federal state (Jones 2009: 381).

Kivinen and Rinne (1991) depict the development of the Finnish higher education from a rather comprehensive system towards an increasingly diversified and stratified system. The system has been differentiated since the 1990s in terms of programmes, disciplines, students' socio-economic background and institutional types, in particular also with the introduction of universities of applied sciences in 1995 (Kivinen and Rinne 1991, Kivinen and Rinne 1996). Again, this development is explained by the interdependencies between HEIs and their environment, in particular the influence of external occupational groups on curricula and programs in their quest for legitimation and status (1996: 215). Furthermore, pressure by elements of competition among the HEIs introduced by the government is expected to increase stratification and hence strategic educational decisions by students and their families (Kivinen and Rinne 1991: 546).

In Germany integration and differentiation can be observed. In the 1960s and 1970s, teachers' colleges (Pädagogische Hochschulen) in most federal states were upgraded and integrated into universities. In 1968, the establishment of universities of applied sciences (UASs) (Fachhochschulen) was decided by the federal states. Subsequently, in the 1970s, so-called integrated comprehensive HEIs (Integrierte Gesamthochschulen) were created with the idea of merging the university model with the UAS model. As a rule, the German UASs have a relatively distinct profile of professionally oriented higher education studies, and they differed more from the universities than the British polytechnics did (Teichler 1996). From a comparative perspective, the remarkable stability of the German binary system is explained by the narrow study profile of the UASs and by the high degree of legitimacy the new institutions have gained in the public (Meek et al. 1996: 223).

Yet when looking at the overall result of institutional diversification in Europe, Teichler (1988a) is rather pessimistic. In his assessment, these efforts to establish an effective non-university sector within higher education systems were not as successful as predicted in Europe. He explains this failure on three main grounds: First, structural reforms changed the higher education systems less than expected; second, the introduction of a second tier did not take students' educational choices and competences into consideration. Referring to (Neave 2006), Teichler (1988a) argues that the problem of the college sector in most countries was that these new HEIs were not created with a clear profile and often had overlapping functions. And finally, third, this second sector failed to become a stable institutional type due to status differences. The formula "different yet equal" has always been a rather idealistic and norma-

tive statement. For, as a matter of fact, the non-university sector has always been regarded as “the less noble” sector, and was thereby also forced into academic drift (Teichler 1988a: 362).

In their overview of the non-university sector in Europe, de Lourdes Machado et al. (2008) do not settle the problem of either differentiation or convergence, but they too emphasize that if the polytechnics are to have a future, their profile clearly needs to be strengthened. Comparing the research mission of European UAS, Lepori and Kivik (2010) however conclude that it is possible to maintain a binary system if the research profile is clearly defined. They argue that the explicit focus on applied research as well as the cooperation with regional actors in the case of the Finnish and Swiss UASs supports the maintenance of a binary structured system. The critical choice would be between ‘soft’ and ‘hard’ differentiation (ibid.: 314). With ‘soft differentiation’, they describe a system structured in two sectors but with common rules as to funding, career, accreditation etc. With ‘hard differentiation’ on the other hand, they portray a binary system where the UASs develop a specific research mission, “perceived as different from universities and accepted both by the state and by social actors, which justifies also different rules and funding mechanisms” (ibid.: 314). However, such a binary divide could only be implemented on the basis of strong state intervention and broad social legitimation.

### **3.5.4 Investigating change in the Swiss higher education system**

Higher education policy research is a rather new field of research in Switzerland. Indeed, there have not been many studies until recently. However, with the establishment of the UASs in the mid-nineties, the issue of system differentiation began to attract the attention of higher education researchers. Early contributions in the context of the conceptualization phase raised the question of a binary differentiated higher education system. These studies provide an overview of the state of the higher education system; they identify deadlocks and a need for reform; they propose possible categorizations of HEIs and discuss challenges. Differentiation is primarily understood in terms of function and role, of a division of tasks among the institutional types (e.g. Arnet 1997; Weber 1998). Thus, Arnet (1997) provides an interpretation from a political perspective, stressing the functional aspect of differentiation. He views the UASs as being more or less equal to the universities and he considers the aspect of difference to be of greater importance (Arnet 1997: 13). Weber (1998) further deals with the consequences of a diversified system in addition to emphasizing the need to tackle governance issues, for as a result of policy changes and the increasing number of actors involved, governance in higher education has become increasingly complex (Weber 1998: 192).

On a more general basis, several authors deal with the challenge of internationalization in higher education and research due to increased competition and ponder its effects on organizational governance and the research orientation of HEIs (e.g. Horváth et al. 2000; Leresche et al. 2009). Others provide policy analyses in higher education from a governance perspective on aspects of federalism, in particular the coordination and cooperation between the different polity levels (Confederation and cantons) (e.g. Perellon and Leresche 1999; Griessen and Braun 2010 or, as to research and innovation policy, cf. Griessen and Braun 2008). Another important aspect of the complex governance structure is the highly fragmented funding system. Perellon (2001) uses the example of the revision of the Federal Act on University Funding to illustrate how the Confederation increased influence in higher education policy by introducing new modes of financing. Lepori and Fumasoli (2010) deal with changes in higher education governance and their impact on institutional configuration.

In a comprehensive project, Leresche et al. (2012) provide an in-depth analysis of cooperation and restructuring processes among the HEIs of the cantons of Vaud and Geneva. As a rather exceptional model of coordination, they give an exhaustive account of the ‘projet triangulaire’ – an exemplary form of division of labour whereby the entire basic sciences have been transferred from the University of Lausanne to the Federal Institute of Technology of Lausanne (EPFL) and pharmacy has been concentrated at the Geneva site (Leresche et al. 2012: 229ff.). In their conclusion, the authors state that governance systems are shifting towards more multilateral actor constellations; that a certain convergence is taking place both among the actors and with regard to policy reforms; that the conceptualization of strategic projects boosts institutional autonomy; that territorial dynamics enhance the legitimation of cooperation between HEIs; and that finally, inter-institutional coordination is closely linked to the internal coordination capacities of HEIs (Leresche et al. 2012: 441ff.).

In her dissertation – one of the few in-depth analyses on the universities of applied sciences in Switzerland, Pätzmann (2005) provides an inter-sectoral analysis based on a comparison of two disciplines, architecture and business studies, offered by both the universities and the UASs. Although she uses the term ‘differentiation’ as a criterion when characterizing the two sectors, the author does not refer to the international discourse of differentiation. With regard to the “different yet equal” formula, she evaluates that in the case of the subjects researched, the two institutional types finally did not differ as much as was thought at the time of the policy conception phase. Differences between the sectors were becoming blurred due to increased inter-sector mobility. Yet the creation of the UASs did not usher in equality in terms of students’ social status. Higher status students far more frequently studied at academic universities (Pätzmann 2005: 201).

Only a few studies on the Swiss higher education system deal in greater detail with questions of differentiation and convergence and endeavour to assess structural change in terms of institutional diversity. In a comprehensive article, Lepori (2007) provides an accurate account of diversity in the Swiss higher education system. In a governance analysis based on qualitative and quantitative statistical data, he identifies the following sources of diversity: institutional positioning of the HEIs in terms of mission, subject mix or funding sources, disciplinary differences (with particularly strong “field-level horizontal forces” (Lepori 2007: 237).

With a goal of taking stock more than ten years after the establishment of the UASs, Weber et al. (2010a) carry out a comprehensive assessment of their development with regard to the initial programmatic mission assigned by the legislator. They identify, on the one hand, harmonizing tendencies and convergence which they explain – drawing on institutional isomorphic mechanisms – by the UASs’ orientation to the university model, in particular with regard to research activities or recruiting strategies. On the other hand, the authors show that in many regards, the UASs are still very much aligned with the vocational sector, a fact which is explained by path dependency (Weber et al. 2010b; Weber et al. 2010a: 218ff.).

Perellon (2003) describes the establishment of the UASs as a process of system differentiation and discusses to what extent further system integration threatens differentiation efforts by de-diversification. He argues that, although system differentiation increased when the UAS sector was created, system diversity as a whole may have decreased because boundaries between the sectors became blurred (Perellon 2003: 364). In this regard, the author mentions in particular “inter-institutional cooperation” as a driver of transformation (ibid.: 365). He argues that the binary divide between the sectors no longer reflects reality. Accordingly, he favours – in line with (Pratt 2001) – the idea of a “continuum between ‘academic/scientific’ and ‘vocational/professional theoretical poles” (Perellon 2003: 365). As a result, he presumes re-configuration dynamics due to the UASs’ challenging of the traditional universities:

What is certain, however, is that the creation of the universities of applied sciences will increasingly question the traditional universities’ role and mission and will force them to re-think themselves as institutions of higher education and their place in the system. (Perellon 2003: 366)

Diversity at the organizational level of HEIs is analysed, for example, by Perellon and Baschung (2006), who research differences in types of governance based on an intra-sector comparison between HEIs. They find substantial variations in terms of governance and autonomy depending on the institutional context of the HEIs. Lepori et al. (2010) provide a typology of HEIs based on patterns of the subject composition using a quantitative database of 242 HEIs in six European countries. In their analyses, they compare their indicator of subject mix with other indicators such as research output. Focusing on the organizational level, Fumasoli and

Lepori (2011) analyse interactions between academic organizations and their environment on the basis of the detailed description of strategies of selected HEIs aiming at determining their institutional profile.

In another article, Lepori (2008) focuses on the research development of the UASs, discussing system differentiation and convergence. He shows that the UAS sector as a whole has successfully implemented the research mission assigned by the legislator and that in general, research units at UASs are recognized nationally. However, there are substantial differences among subjects and disciplines. Thus, technology and sciences score 5.1 and higher on an index of research intensity<sup>31</sup> whereas economy, social sciences, the fine arts and teacher education score below 1.6 (Lepori 2008: 52). The author explains these differences by different institutional structures among disciplines. Whereas technology and science, in contrast to the Federal institutes of technology, found their profile in applied research, researchers outside technology are not comfortable with the divide between applied and basic research. They refer to other concepts, refuting the notion that such a distinction would be workable for instance in economics or the social sciences (Lepori 2008: 53).

### **3.6 Conclusion: A general trend towards system integration**

Research on the structure and institutional configuration of higher education systems has been identified as a major field in higher education research. As has been shown, these studies vary regarding the definition and concept of differentiation, their theoretical approach, method and operationalization. In general, it can be said that studies providing precise conceptualization and categorization often lack theoretical explanation and remain descriptive (cf. Huisman 1995: 47). Studies attempting to provide a theoretical explanation of structural dynamics draw to a large extent on approaches of the new institutionalism and organization theory. These analyses conceptualize dynamics in higher education as the interplay of organizations of higher education with their environment, whereby competition among similar organizations plays an important role. Various types of strategic behaviour result in either isomorphism mechanisms or the development of diversified profiles.

When examining differentiation or homogenization, it is important to be clear on what level the research will focus. The empirical findings will differ according to whether degree programmes and disciplines, institutions or the whole system will be the unit of analysis (Neave 1996). From a system-level perspective, it can be concluded that many higher education systems are characterized by some sort of differentiation into distinct sectors, though this

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<sup>31</sup> Research intensity is defined as human resources (in FTE) employed in research and development per 100 students.

differentiation varies between countries. The conceptualization and development of the second-tier, non-university sector represents the salient issue in higher education policy. However, although there is empirical evidence and consensus among scholars of increasing convergence integration, views diverge whether further integration leads to differentiation or, on the contrary, to homogenization and convergence among HEIs.

Drawing on the international literature, I will, for my own analysis, make use in particular of the concepts of differentiation and the notion of academic drift as a specific form of convergence. Furthermore, this literature provides an important empirical basis as to the outcomes of recent policy changes. In this regard, it is interesting to see that the non-university sector has developed differently depending on the concrete governance structures, institutional settings and actor constellations.

Research on the Swiss higher education system is still a young and growing field. There are studies dealing with the creation of the UASs and with institutional configuration. However, the bulk of this research remains on a descriptive level, providing a system overview, describing institutional patterns and discussing outcomes with regard to the policy debate. Except from some singular studies, there are relatively few visible attempts to contribute to the theoretical underpinning and to link up to the international discourse using theoretical concepts of structural change like differentiation and convergence. This is precisely the reason why I argue for a sound theoretical fundament to this research project, aiming to grasp the specific issue of system integration in higher education in general concepts of the higher education research literature and with reference to a broadly accepted theoretical perspective. The study shall provide an empirical account of the particular situation of the Swiss case, which shall be discussed and interpreted within the international context.

## 4 Theoretical framework

### 4.1 Introduction

The theoretical approaches that some of the previously mentioned studies have drawn on largely involve organization theory. They focus in particular on the relationship between individual organizations and their environment and various forms of mutual influence. Organizations are thus conceptualized with varying degrees of capacity for action; from strategic agency to mere reactive behaviour in response to choices and decisions by the environment (cf. Walgenbach and Meyer 2008: 120ff.). This concept of an evolutionary process, whereby organizations adapt to the environment (see, for instance, Hannan and Freeman 1977), has come in for criticism because it describes processes of structural change not as the outcome of actors' strategic behaviour but rather as mere aimless, contingent occurrence (Schimank 2005: 98).

Yet the type of structural change that I am going to deal with in this study represents instead a form of functional differentiation – for example, the attribution of specific tasks to certain HEIs. This is why I shall argue that for my purpose, I need to refer to system-theoretical concepts of social differentiation. But, as I shall develop hereafter, such a system-theoretical perspective needs to be complemented by an actor concept accounting for interest and strategic action. For within social systems, actors and social groups are capable of action and thereby influence social systems in turn. In the tradition of the actor-centred approach by Scharpf and Mayntz (cf. Mayntz and Scharpf 1995a; Scharpf 1997), Uwe Schimank in particular has developed a theoretical framework that convincingly achieves such a synthesis (cf. Schimank 1988; Braun 1993, 2000; Schimank 2005, 2007). For the analytical framework that I am going to develop, I will draw on these approaches in particular.

Among the sociological theories explaining differentiation, two traditions can generally be distinguished: explanations focusing on the system perspective and those accentuating the actor perspective (cf. Braun 1993; Schimank 2005). System theoretical approaches explain differentiation by structural and functional factors. By way of illustration, a system-theoretical approach explains structural change in higher education for example by means of demographic, economic and technological developments requiring expansion, specialization or division of tasks to which the system responds by functional adaption. On the other hand, actor theories explain structural outcome by interactions of individual and collective actors, involving power and dependence. Change within a system is explained as the outcome of interrelations of different actors with competing interests. Institutional aspects further affect the actors of the

system. Ideas and values, cognitive and normative orientations can be powerful agents for structural change. (Schimank 2005)

In the following sections, I shall in a first step introduce the theory of functional differentiation, referring in particular to Luhmann (1997), and then in a second step, introduce actor-oriented approaches, before, in a third step explaining the actor-centred approach to differentiation by Schimank (1988; 2007).

## **4.2 Functional differentiation – a systemic perspective**

Sociological theories of differentiation study two important traits of modernity: on the one hand, the differentiation of roles (i.e. division of labour and specialisation) and on the other, the differentiation of systems confining themselves on the basis of specialized logics of action (Schimank 2007: 12). This strand of theories of social differentiation has a long tradition reaching back to Durkheim and Weber. Parsons subsequently pursued and developed the differentiation-theoretical perspective within the context of a systemic approach to society called structural functionalism.

Structural-functional approaches explain the existence of certain structures by their function of solving problems of other elements. Inspired by cybernetic and technological concepts of open systems, Parsons developed a functional theory of society. The focus was the question of the functional requirements to system maintenance. What are the conditions for systems to survive or change in a controlled way? Parsons defined social systems as constellations of interacting individuals, confronted with three types of environments: the biological organism, the psychic conditions, and the cultural orientations of the actors. Hence systems can only survive if they can reach an arrangement with these environments. In other words, action constellations can only reproduce themselves if the physical needs as well as the motivations of the involved actors are met; if social coordination can take place; and if the system respects overall cultural orientations. However, Parsons did not focus on the question of why social differentiation takes place, since he viewed the dynamics as being historic and contingent. (cf. Schimank 2007: 96ff.)

In contrast, Luhmann's approach to functional differentiation provides a different understanding of structural dynamics in modern society which departs radically from previous concepts (Luhmann 1997, 2009). Since Luhmann represents the starting point for later approaches to differentiation also involving actor theory such as the actor-centred institutionalism of Mayntz and Scharpf (1995a) or Schimank's actor-centred theory of differentiation, I shall review the core elements of Luhmann's theory in the next section. These explanations are



primarily based on the authors' interpretations of the above-mentioned theoretical developments (Mayntz 1988; Braun 1993; Schimank 2007, 2009).

In Luhmann's view, modern societal systems are differentiated into about a dozen functionally specialized subsystems<sup>32</sup> such as the economic, political, legal, scientific and educational subsystems. These "societal subsystems" are described as self-referential and closed systems. The subsystems, albeit open to inputs in the form of resources from the environment (i.e. from other subsystems), are semantically closed systems in terms of cognitive reference and identity. In order to create their identity, they do not draw on other systems, but rather constitute their identity on a self-referential basis. This mechanism of semantic self-creation from its own basis is described by the concept of 'autopoiesis'.<sup>33</sup> Thus, these subsystems represent closed contexts of meaning, referring exclusively to their own semantic context based on a specific binary code – the core of the subsystem's identity. These codes are binary insofar as they guide actions and communication within the subsystem by means of normative antagonism. Functional subsystems provide general guidelines for the evaluation of appropriate action within a specific subsystem. For example, action within the legal subsystem is oriented around the code 'just vs. unjust', within the economic subsystem around the code 'to pay vs. not to pay', or within the science subsystem around the code 'true vs. false'. In other words, these normative codes – Schimank (2009) refers to as "evaluative orientations" – are culturally constituted and tell actors what matters in a specific situation; consequently, they possess a strong power to structure societal organization (Schimank 2009: 195)<sup>34</sup>.

### 4.3 Introducing actor-theoretical concepts within system theory

Yet there is an important aspect of critique that has to be considered: system theory is not able to deal with individuals' capacity to act, with their strategic capacity and their potential to create system effects – thus the critique of Luhmann's theory by Mayntz and Scharpf (1995a): "Die Analyse von Strukturen ohne Bezug auf Akteure bleibt genauso defizitär wie die Analyse von Akteurhandeln ohne Bezug auf Strukturen" (Mayntz and Scharpf 1995a). The goal of any

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<sup>32</sup> Luhmann defines society as a whole as a system. Consequently, he defines further systems differentiated from the societal system as subsystems. Mayntz also uses the terms "functional subsystem" (funktionelles Teilsystem; Funktionssystem) (Mayntz 1988: 17). I will use the term "subsystem" only when referring to these authors and discussing the theoretical framework. But for my own purposes, I will use the term "system" when referring to the "education system", the "scientific system" or the "higher education system" which I understand as organizational systems.

<sup>33</sup> The binary codes specify the autopoiesis in the form of subsystem communications; for instance, scientific communication takes place in the form of scientific publications that in turn refer to other scientific publications, and not to economic performance for instance, and so on (Schimank 2007: 141).

<sup>34</sup> Cf. Schimank (2009: 195): "Die handlungsprägende Ordnungskraft, die ein binärer Code in seinem 'Hoheitsgebiet' ausübt, beruht nicht nur darauf, dass er dort unangefochten dominiert, sondern weitergehend darauf, dass diese Dominanz auch rigoros 'intolerant' ausgeübt wird."

sociological analysis should be to explain how actors create social structures that in turn constrain further action:

Es geht darum zu erklären, wie Akteure, die mit bestimmten Interessen, Handlungsstrategien und Einflusspotentialen ausgestattet sind und in sozialen Situationen aufeinander treffen, durch ihre Interessenverfolgung Handlungsverkettungen und, daraus hervorgehend, gesellschaftliche Strukturen erzeugen, die weiteres Handeln dann prägen. (Schimank 2005: 79)

The critiques argued that pure system theory was insufficient to explain social structures and social change. In particular, traditional concepts of differentiation theory were not well-suited to analysing and empirically explaining real processes of differentiation (Mayntz 1988: 12; Schimank 2005: 95). Therefore, when studying differentiation processes within a policy analysis approach, we have to take into account the actors within a given system – individual and collective actors as the principal intentional agents of interactions. In particular, such an approach is too remote on a macro level to inform empirical policy analysis. Pure system-theoretical approaches do not meet the requirements of political sciences – hence a widely shared critique of functional system theory (cf. Schimank 1988; Beyme 1991; Braun 1993; Schimank 2007).

What is needed in order to accurately understand political and social processes is a comprehensive approach combining both the social system paradigm and the social action paradigm: the latter stating freedom of action and the capacity to intentionally pursue goals; and the former conceptualizing the social system as a means of embedding man and releasing him from disorientation by reducing the number of alternatives of action through institutionalized orientations, norms and values.<sup>35</sup>

### *Discussion of actor theories*

Besides sociological theories of action, actor-centred approaches also draw on actor theories based on the rational choice paradigm (cf. Becker 1976; Lindenberg 1983; Coleman 1990, 1994; Becker 1993; Esser 1993; 1999). The central idea of rational choice theory is that individuals act rationally to satisfy their preferences, or to maximize utility. Choices of action are made on the basis of a cost-benefit analysis. The overall rationale is to pursue those actions that maximize the benefit of the actor<sup>36</sup>. However, these cost-benefit calculations are not made

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<sup>35</sup> The social system perspective has always been the perspective of the social order; providing the individual with security and direction but also controlling him and preventing him from deviance (see Schimank 2007: 189).

<sup>36</sup> Likewise, Boudon (1990), in a micro-sociological approach based on methodological individualism, argues in favour of focusing on the individual actor and his intentional actions in order to link system and action: “[...] les phénomènes auxquels le sociologue s’intéresse sont conçus comme explicables par la structure du système d’interaction à l’intérieur duquel ces phénomènes émergent. L’atome logique de l’analyse sociologique est donc l’acteur individuel. [...] Plusieurs des analyses précédentes suggèrent que la compréhension des relations de causalité que le sociologue décèle entre les

on the basis of objective criteria and measures. In fact, individual choices are made on subjectively expected costs and benefits. Consequently, the model does not expect actors to achieve identical evaluations of cost and utility.

However, action theories often fail in explaining determinants and the specification of actors' interests. The question of why certain actors have precisely these interests remains open (Schimank 2005). Actor-theoretical approaches do not really discuss the specifications of actors' interests, and are not capable of methodically linking actors' interests to their social context. As a result, Schimank (2005) states the following:

Es besteht eine unüberbrückte Kluft zwischen der abstrakten Modellvorstellung des rational seine Interessen verfolgenden Akteurs auf der einen und empirisch konkretisierten Interessenausprägungen auf der anderen Seite. Solange Akteurtheoretiker über Akteure ‚im allgemeinen‘ sprechen, können sie diesen nur – mehr oder weniger beliebig – eine der generellen Handlungsstrategien wie Maximierung des absoluten eigenen Nutzens, Minimierung der relativen eigenen Verluste o.ä. zuschreiben. Diese abstrakten Formeln tragen zur Erklärung konkreten gesellschaftlichen Handelns noch gar nichts bei, weil immer erst substantiell spezifiziert werden muss, worin denn in einer gesellschaftlichen Situation der Nutzen bzw. die Verluste eines Akteurs bestehen. (Schimank 2005: 79)

On account of this critique of the economic rational choice theory, sociological theories of action try to combine the rational choice approach with concepts of social systems and institutions. These approaches seek to explain how actors, vested with specific interests, strategies and resources, interact and thereby produce social structures that in turn affect further actions. It is argued from a neo-institutionalist perspective that there are normative and cognitive constraints that enable actors to make choices within a given environment and situation. Hence, actions must be conceptualized in two dimensions: While pursuing their rational interests, actors select their actions within the context of generalized orientations. These generalized orientations constrain and condition their actions (Schimank 2000, referring to Franz 1986).

Institutions represent mechanisms to reduce the complexity of actors' constellations and to provide a clear, manageable and confined area of action opportunities. This is one of the most important benefits of social systems and subsystems. Because social systems are systems of values, norms and cognitive orientations, they constrain and orient actions. Schimank (2005) suggests referring to institutionally constituted general orientations for actions, which define normative expectations of social actors within a given subsystem.

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propriétés des systèmes d'interaction et le comportement des individus n'est généralement possible que si ces comportements sont conçus comme des actions dotées de finalité." (Boudon 1990: 51f.)

#### 4.4 Actor-centred institutionalism

In response to structural functionalism as well as to functional differentiation theory by Luhmann, scholars from the German Max Planck Institute for the Study of Societies – among others – provided a new theoretical framework to deal with structural dynamic in societal systems capable of guiding empirical analyses and providing a causal explanation (Mayntz 1988: 17). In doing so, they complemented the systemic view by an understanding of interrelating actors, so-called actor constellations (cf. Schimank 1985; Mayntz 1988; Hohn and Schimank 1990; Mayntz and Scharpf 1995a, 1995b). The approach that became famous under the term ‘actor-centred institutionalism’ was first developed by Scharpf and Mayntz (cf. Mayntz 1988; Mayntz and Scharpf 1995a; Scharpf 1997).

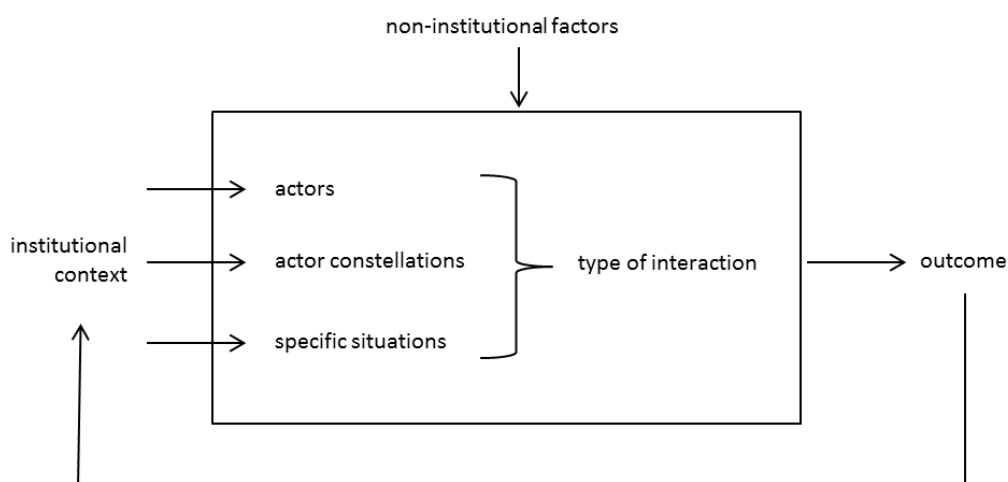
The approach of actor-centred institutionalism was not meant to be a comprehensive theory of its own but rather an analytical framework to guide empirical analysis, for it does not provide causal explanations even though it entails certain theoretical premises (Mayntz and Scharpf 1995a: 39). Actor-centred institutionalism refers to neo-institutionalist concepts in political sciences although it is delimited from neo-institutionalism in a number of aspects: It is not limited to political institutions; it applies a rather narrow concept of institutions, namely purposeful regulations; institutional structures are considered as both dependent and independent variables; institutions are not deterministic, instead, institutions represent a facilitating or restricting context for social action. (Mayntz and Scharpf 1995a)

Further social action is conceptualized within actor constellations, where actors are generally conceived as corporate actors, i.e. formal organizations capable of social action, although their action might also be affected by individual action. Actors and actor constellations are constituted by the institutional context, which structures actors’ disposal of resources, their cognitive and normative orientations (Mayntz and Scharpf 1995a: 43ff.). More specifically, there are motivational, cognitive and relational orientations that frame the individual and collective action of formal organizations. As for the concrete motivations for action, the authors of actor-centred institutionalism propose to start explaining them by institutional, i.e. regulatory, factors, and then, only in a second step, by interest and utility. Among the latter, the analysis shall begin with standardized interests such as growth, assurance of autonomy, differentiation of domain, and predictability (Mayntz and Scharpf 1995a: 66f.). Cognitive orientations involve factual knowledge, perception and expectations; finally, relational orientations determine relationships between actors, whether this be cooperative, utility-maximizing or competitive.

In a policy analysis from an actor-centred perspective, the interplay of corporate actors within specific actor constellations and a particular type of interaction (competition, cooperation etc.) represent the central explanatory variables. Thus, policy choices are explained by focusing on the “interactions among individual, collective, and corporative actors that are shaped by the institutional settings within which they take place. Institutionalized rules, varying from one place and one time to another but relatively invariant within their domain, are thus the major sources of the regularities that we are able to discover and use in our explanations” (Scharpf 1997: 16).

The other key explanatory variable in actor-centred institutionalism is the type of interaction within specific actor constellations, that is, the types and modes of social coordination.<sup>37</sup> Thereby, the authors relate to the concept of governance: “Im akteurzentrierten Institutionalismus stehen demgegenüber die verschiedenen Modi sozialer Handlungskoordination im Vordergrund, die heute zumeist unter dem von der Transaktionskosten-Ökonomie geprägten Stichwort ‚Governance‘ erörtert werden“ (Mayntz and Scharpf 1995a: 60). Among these, they identify, in ascending order with regard to the degree of authority, adaption, negotiation, vote, and hierarchical decision as abstract forms of social coordination (ibid.: 61). Finally, in the concrete empirical analysis, these explaining key factors must be complemented by specific situational factors. The figure below illustrates the interplay of actor constellations and institutional structures (see Figure 4.1).

**Figure 4.1: Analytical framework of actor-centred institutionalism**



Source: (Mayntz and Scharpf 1995a: 45)

<sup>37</sup> The actor-centred approach hereby describes the combination of specific actors and their mode of interaction: “The constellation describes the players involved, their strategy options, the outcomes associated with strategy combinations, and the preferences of the players over these outcomes” (Scharpf 1997: 44).

## 4.5 A general approach to actor-system dynamics: Actor-centred differentiation theory

Drawing on functional differentiation by Luhmann (1997) and on the actor-centred approach by Mayntz and Scharpf (1995a), Schimank pursued the development of a comprehensive differentiation theory involving system and actor perspectives. This new theoretical framework has shifted the focus from the question of modes of coordination in specific policy relevant sectors to functional differentiation of societal systems. The goal has been to provide a theoretical approach explaining the dynamics of differentiation (Schimank 1988, 2007). In general terms, differentiation in this approach is conceptualized as the outcome of actor constellations involving patterns of interest and influence within the context normative orientations and institutional settings.

### 4.5.1 The structure of subsystems

In contrast to Luhmann, in the centre of Schimank's approach is the actor, as an individual or organization, capable of acting on the basis of specific interests. Societal subsystems condition and guide the actions of its members; they function as a reference system within a confined field, providing normative and cognitive orientations (Braun 2000, 117ff.). Drawing in particular on Mayntz's approach to differentiation (Mayntz 1988), Schimank (2005) identifies three dimensions in which societal subsystems are structured: cognitive and normative orientations of the subsystem; institutional settings; and actor constellations. These three analytical dimensions constitute an attempt to integrate system-theoretical concepts with the actor's perspective and thus represent the core of this theoretical framework.<sup>38</sup>

In line with functional differentiation theory by Luhmann (1997), Schimank conceptualizes societal subsystems as self-referentially closed systems, structured around a specific meaning. Subsystems provide *generalized orientations* for individual action; in other words, frames of reference for the actors to orient their actions and interactions<sup>39</sup> (Schimank 2005). In assuming their societal function, i.e. in fulfilling their specific role, subsystems secure the integration of society. Subsystems define what kind of information is to be accepted and adopted; they structure real world experiences and thereby reduce complexity. They convey a particular meaning, which can be identified on a cognitive level as a particular rationale or on the level of action as particular practices. Subsystems are structured around a core constituted

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<sup>38</sup> In the German original: "teilsystemische Orientierungshorizonte, institutionelle Ordnungen und Akteuerkonstellationen" (Schimank 2007: 220).

<sup>39</sup> Both neo-institutionalist approaches and sociological rational choice theory use similar concepts of action orientation (cf. the concepts of "myths" (Meyer and Rowan 1977) or "frames" (Esser 1990: 8)).

by the binary code on the macro-level which defines the general direction of actors' interests. This code is highly generalized and relatively stable (Schimank 2007: 222).

On a second level and more specifically, there are *institutional settings*, also referred to as to programmatic structures<sup>40</sup> (Schimank 2009: 197). The institutional setting or the programmatic structures provide evaluative, cognitive and normative orientations for action,<sup>41</sup> whereby the binary code is somehow operationalized by means of referential programmes further specifying how to evaluate concrete situations and under which conditions evaluations are to be made. In the scientific systems, of instance, the code 'true vs. false' is operationalized by means of a programmatic structure involving theories and methodologies (Schimank 2009: 197).

On the third level, *actor constellations* – just as in the actor-centred approach by Mayntz and Scharpf (1995a) – structure the actions within a network of interdependencies. Individual and collective actors have to coordinate their actions within these structures. Consequently, actors cannot realize their intentions directly, but must cooperate with other actors. The interplay of different individual strategies often results in contingent, non-intended consequences. Actor constellations occur when two or more actors interact: Different actors perceive their interfering intentions and try to deal with them.

Neben Code und Programmstrukturen, die evaluative, kognitive und normative Handlungsorientierungen liefern, kommen als ‚Beweger‘ des Geschehens noch die Konstellationsstrukturen der Akteure hinzu. [...] Nicht einzelne Akteure jeweils für sich, sondern erst deren handelndes Zusammenwirken erzeugt, im Wechselspiel mit handlungsprägenden Strukturen, soziale Dynamiken. (Schimank 2009: 199)

Since no actor can act in isolation, his individual intentions will interfere with those of other actors. Although intentional, the outcome of his actions is open to some degree. This fact of so-called "trans-intentionality" is a central premise in the actor-theoretical perspective: Other actors limit the intentionality of a specific actor (Schimank 2005: 23).<sup>42</sup> The intention of a certain action is either averted, for instance by means of a compromise, or there are still other not really intended effects (non-intended side effects). However, with all these efforts to cope with and manage such differences in their intentions, actors in turn build social structures as more or less institutionalized and lasting patterns of coping structures (Schimank 2000: 176).

From these interactions, various structures emerge. Schimank identifies the following general types of configurations: patterns of expectations (formalized and informal rules),

<sup>40</sup> Cf. in German: Programmstrukturen.

<sup>41</sup> Evaluative orientations are provided by the binary code; cognitive orientations inform actors which are the relevant facts and rationales, whereas normative orientations represent institutionalized expectations, i.e. what actors should do in a specific situation (by way of illustration, when you enter a grocery store to buy a loaf of bread, you expect the owner to sell it to you, and not to give it for free).

<sup>42</sup> Schimank (2005) referring to Coleman (1990) states that actors are therefore not fully in control of their activities.

patterns of cognitive orientations (ideas, values, or codes), and patterns of equilibrium constellations where no actor is able to change his own actions. These patterns or structures – describing social action in the form of a will, a social norm to fulfil, or a competence someone is capable of – emerge and are altered by actors' efforts to deal with different and conflicting interests and intentions. Their actions represent strategies to impose one's intentions, and thereby deliberately and intentionally build social structures. However, there are also social structures that are built and altered as the result of non-intended effects or side effects. The structural patterns that emerge from the interplay of actor constellations within an institutional setting are relatively stable. (Schimank 2009)

#### 4.5.2 The conceptualization of actors' interests

Yet how are actors' interests substantiated? In order to theorize the great variety of actors' interests, Schimank (2005) proposes the concept of "reflexive interests" (Schimank 2005: 153).<sup>43</sup> Reflexive interests represent a small number of generalized interests as a basis for the great variety of heterogeneous specific interests. The term reflexive is used because these general and more abstract interests refer in turn to the realization of specific substantial interests. In other words, they represent general conditions for the realization of concrete interests. The following four types of reflexive interests are identified: (1) actors strive to realize a broad spectrum of specific interests and to extend this spectrum; (2) actors aim to dominate a specific sphere of interests (which involves an interest in an increase of resources, and in the monopolization of their competences within this sphere); (3) actors want to extend their control over the realization of their interests (i.e. they want to increase their decisional autonomy); and (4) actors strive to gain reliability of expectations (ibid.).<sup>44</sup> In a nutshell, actors are interested in growth, monopolization, autonomy and control. The use of these general concepts can guide empirical analysis and help to operationalize interests and identify constellations of interests. (Schimank 2005)

The influential potential of an actor represents his ability to enforce his interests. This influence draws inter alia on the use of positive or negative sanctions within constellations of dependent actors. Taken together, these general interests form a configuration or pattern of interests; such constellations often involve sources of conflict among actor groups (Schimank 2005: 108). In actor constellations, we can subsume diverse resources of actors to influence other actors, their actual knowledge of the specific situation as well as institutional restrictions.

<sup>43</sup> Cf. also the concept of "standardized interest" used in actor-centred institutionalism (Mayntz and Scharpf 1995a: 66f.).

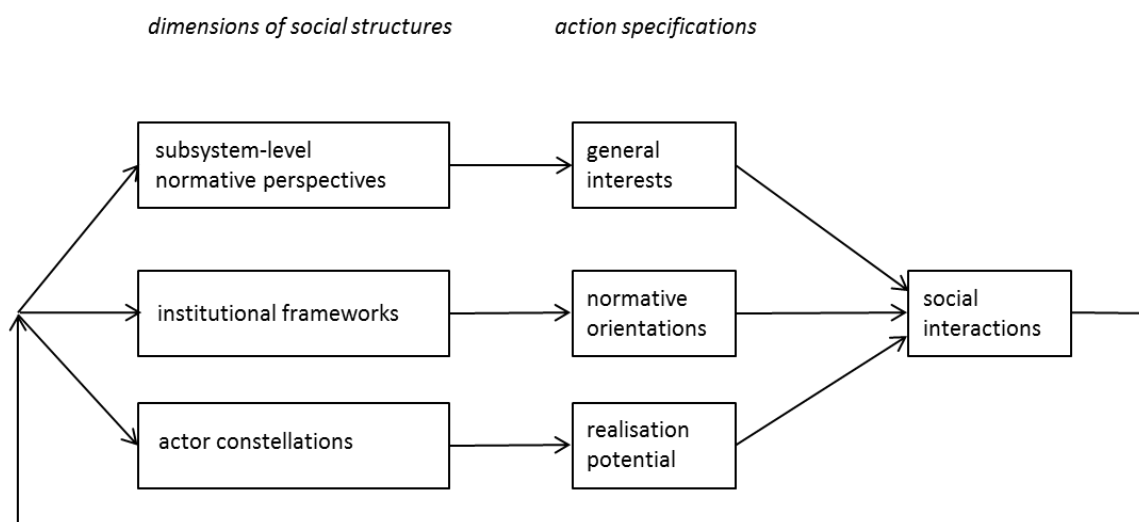
<sup>44</sup> In the original: 1) "Reichweite der Interessenrealisierung ausdehnen", 2) "Dominanz in substantieller Interessensphäre", 3) „Kontrolle über die eigene Interessenrealisierung“, 4) „basale Erwartungssicherheit“ (Schimank 2005: 153).



Both dimensions – goals and the potential to realize them – are interrelated and constitute complex actor constellations: We only strive to achieve goals that we can realistically attain within the given opportunities; in turn, our interests specify those opportunities among a wide range of opportunities that we consider worthwhile to pursue (Schimank 2005: 155, 2007: 229).

The framework thus integrates the system perspective using the concept of subsystem-level perspectives from an actor perspective in terms of actor constellations.<sup>45</sup> Placed in between (when represented as levels within a vertical orientation) these two dimensions and involving both of them, the institutional dimension is conceptualized. Social interaction is influenced by each of the three structural dimensions, which are further specified in terms of action framing general interests, normative orientations and realization capacities<sup>46</sup>. Social interactions in turn reproduce the structures of the subsystems, the institutions and the constellations (see Figure 4.2).

**Figure 4.2: Conceptual framework of the actor-centred approach to differentiation**



Source: Schimank (2007: 223)

In this model, our dependent variable – the structure of social differentiation – is either to be found in the dimension of the subsystem or in the institutional dimension. When conceptualized in this way, this theoretical framework can orient differentiation-theoretical analyses. It ensures that variables at all the three levels are explicitly taken into account. Processes of

<sup>45</sup> Cf. Schimank (2007): “Betrachtet werden Differenzierungsvorgänge in teilsystemischen Orientierungshorizonten oder institutionellen Ordnungen; und zur Erklärung dieser Vorgänge werden weiterhin Akteurkonstellationen hinzugezogen, die im Wechselspiel mit den anderen beiden Dimensionen diese Vorgänge erzeugen“ (Schimank 2007: 224).

<sup>46</sup> Schimank describes these action specifications as „Handlungsprägung“ taking the form of „Wollen“, „Sollen“ or „Können“; respectively also “Wollensvorgaben”, “Sollensvorgaben”, and “Könnenskalküle” (Schimank 2007: 223).

differentiation at either the subsystem or institutional level are explained by means of actor constellations.

### **4.5.3 Organizations as agents of differentiation**

In actor-centred differentiation theory, societal units are structured by their collective and individual actors and their interrelations. Among these, formal organizations have a key role in the provision of specific functions within societal subsystems. Formal organizations represent important drivers for systemic and inter-systemic integration. Organizations put the general cognitive and moral orientations into place and ensure that members of the organization respect them. In sum, organizations always have a dual nature: on the one hand, they structure and orient action within a subsystem, while on the other hand, they are important actors creating and changing the subsystem structure (Hohn and Schimank 1990: 23). The extent to which a subsystem differentiates depends on the existence of corporative actors claiming autonomy and authority to self-governance within the subsystem. For the public only perceives the subsystems when they reach the stage of differentiation into a formal organization (Mayntz 1988: 23). Consequently, an analysis of social differentiation processes also has to consider the institutional structure of a subsystem and to identify formal organizations, their nature, size, and degree of formalization; their hierarchical construction, their relationship to its members and to other subsystems (Mayntz 1988).

Furthermore, regarding the institutional dimension, a set of dynamics can be observed at the organizational level. Organizational differentiation can take different forms: first, a differentiation of content of production. This represents a form of division of labour, hence the specialization of organizations within specific segments of the subsystem production (e.g. the specialization of disciplines and research fields); or second, a differentiation of type of production, often associated with the specialization of different addressees (e.g. different types of research institutions).

### **4.5.4 Professions – functional roles between actor and organization**

Besides formal organizations and individual actors, Braun (1993) identifies professions as important agents in differentiation dynamics.<sup>47</sup> Members of professions occupy functional

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<sup>47</sup> There are different conceptions of professions in sociology. A first approach describes professions as a continuum between occupation/trade and profession. Professionalization would then describe the change in the position on that continuum; a second approach focuses on the political and strategic process. Here, professionalization is understood as a strategy of certain groups trying to impose specific attributes of their profession in order to gain autonomy (Braun 1993: 210ff.)

roles.<sup>48</sup> These roles are professionalized insofar as those who exercise them are members of a specific profession. Braun interprets these roles as brokerages agencies between system and individual (Braun 1993: 211). Functional differentiation would always lead to the development of professionalized roles. Professions are characterized by strong institutionalization and a monopoly over information and knowledge in their field; they control the delivery of services, and regulate access and selection of new members autonomously by means of a professional council. Professions are highly autonomous and powerful (Braun 1993: 211).

Membership of a profession affects the individual in various ways: the new member must accept the general cognitive orientations and normative values of the subsystem. Furthermore, there is a system of specific sanctions securing the fulfilment of the expected services by the members of the profession, implemented by means of reputational mechanisms. Once he has entered a professional role, the individual is caught in a system of interdependent relations where the most important objective is to increase reputation in the form of gratifications, financial bonuses, career steps, etc. In order to gain such a reputation, the individual must provide a professional service that will be evaluated and awarded by the professional councils (e.g. juries, reviewers, party leaders, etc.) or the wider public of the professions (e.g. patients, clients, voters, etc.). Irrespective of individual motives, the fact that the individual professional is embedded in a cycle of reputation secures the provision of services and hence the reproduction of the subsystem. Yet reputation is a scarce good, and professionals must compete with other professionals, in particular those at a higher status level.<sup>49</sup> This competition and status-level difference lead to specific actor constellations that affect individuals' actions and strategies. This reinforces the tendency towards system closure and makes it difficult for policy to intervene, for not only the interests of corporative actors and formal organizations are concerned but also those of the individual professionals and their chances to increase reputation (Braun 1993: 213).

## 4.6 Conclusion and rationale for the analytical framework

Summing up, we can retain from the explained differentiation theoretical perspectives that modern societies are conceptualized as functionally differentiated. They are functionally

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<sup>48</sup> Cf. the original term in German: ‚professionalisierte Leistungsrollen‘ (Braun 1993: 210).

<sup>49</sup> Braun (1993) refers to Bourdieu (1975): “The struggle for scientific authority, a particular kind of social capital which gives power over the constitutive mechanisms of the field, and can be reconverted into other forms of capital, owes its specificity to the fact that the producers tend to have no possible clients other than their competitors (and the greater the autonomy of the field, the more this is so). This means that in a highly autonomous scientific field, a particular producer cannot expect recognition of the value of his products (“reputation”, “prestige”, “authority”, “competence”, etc.) from anyone except other producers, who, being his competitors too, are those least inclined to grant recognition without discussion and scrutiny.” (Bourdieu 1975: 23)

differentiated into societal subsystems, organizations and roles, which allow for division of labour and rationalization. Society as a whole is understood as an ensemble of coexisting diverse but equally ranked subsystems, interrelated with various transactions of services. Each has developed its own cognitive orientation and identities over time (Schimank 2007: 244).

In a differentiated society, the subsystems have specialized functions for the reproduction of the system. These functional requirements condition social action. But the selection of the actions that are eventually realized occurs through the interactions of the actors within constellations of interests and influence. Schimank (2005) summarizes the general thesis of his approach as follows:

Gesellschaftliche Differenzierung ist nur als Ergebnis von Interessen- und Einflusskonstellationen gesellschaftlicher Akteure im Rahmen funktionaler Erfordernisse gesellschaftlicher Reproduktion angemessen rekonstruierbar. (Schimank 2005: 102)

The progressive functional differentiation is explained by diverse factors: expected or realized efficiency gains by functional differentiation;<sup>50</sup> cultural factors and cognitive orientations; actors' interests such as avoidance of competition, expansion of sphere of influence and increased autonomy (Schimank 2005). Furthermore, professional functional roles are crucial in differentiation processes. The institutionalization and monopolization of specific knowledge in professions with exclusive selection and rewarding mechanisms increase social differentiation and system closure (Braun 1993).

When analysing modern societies from actor-centred differentiation theory, several structural levels have to be distinguished. The binary codes structuring each subsystem represent the core of a general cognitive orientation defining system-specific expectancies. Next, there are specific institutional rules (roles, legal norms, and organizational rules); finally, we identify constellations of individual and collective actors involving interests and resources. The differentiation of societal systems thus takes place in a dynamic interplay of subsystem-specific orientations and patterns, institutional arrangements and actors' constellations (Schimank 2007: 245).

The aforementioned theoretical framework is characterized by the proposition that system-level components and institutional parameters structure – that is to say, constrain and enable – intentional actions by individual as well as corporative actors, and that the result from actors' interplay, in turn, affects and reproduces system configurations. Actor-centred differentiation theory postulates the organizational structure of subsystems and the reflexive interests by collective actors within a given actor constellation. A plurality of agents interacts within a

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<sup>50</sup> Or put it the other way round: perceived deficits of system-specific production of services (Schimank 2007: 229)

structural context of generalized orientations, service roles, institutions and resources and thereby contributes to the structure of the societal systems. In the following chapter, I shall attempt to apply this theoretical framework to the field of higher education.



## **PART II**

# **ANALYTICAL FRAMEWORK AND METHODOLOGY**





## **5 Towards an analytical framework**

### **5.1 Introduction**

In the previous chapters, I have approached my subject from various angles. I first dealt with conceptual issues and tried to define key terms in order to conceptualize the issue of differentiation in higher education. Then I discussed different theoretical perspectives, notably from actor-centred differentiation theory, which provide explanations for processes of differentiation and which could form a theoretical framework for my analysis of the integration of teacher education into the higher education system.

The theoretical considerations will now be consolidated within an analytical framework that shall guide my analysis, by means of which I shall try to adopt the theoretical approaches to the object of the research. Accordingly, I shall adopt the conceptual framework of actor-structure dynamics developed by Schimank (2005) within his actor-centred theory of differentiation (see Figure 4.2, p. 59). Consequently, I will conceptualize higher education as an organization system comprising different organizational units, fields and sectors (cf. Teichler 2006a). Teacher education will then be described as a specific organizational part of the higher education system.

### **5.2 An actor-centred approach to higher education**

I have argued in favour of adopting an actor-centred perspective to differentiation. The actor-centred approach assumes that social phenomena are the outcome of intentional actors and that these interactions and outcomes are in turn structured by the institutional setting (see Scharpf 1997). Following (Mayntz 1988) and (Schimank 2005), I will conceptualize higher education as a dynamic system of social interaction, structured by cognitive-normative orientations and institutional settings. Teichler (2006a) justifies the system character of higher education by the “macro-structure”, i.e. the fact that HEIs are “embedded in common frameworks of societal expectations, regulatory frameworks, and cooperative or competitive linkages” (Teichler 2006a, 448). Furthermore, he argues that HEIs today cannot satisfactorily be described by the characteristics of the classical university, and that diverse institutions participate in activities that are considered being part of a post-secondary, higher education (ibid., 449). In other words, the structure of higher education systems has to be described referring to diverse organizational forms, their cognitive orientations and their specific constellations. Clark (1984a) puts it this way: “We progress in studying change in systems of higher education by

pursuing the question as to how their structures and beliefs – their many parts individually and collectively – constrain and induce changes.” (Clark 1984b: 121)

In describing processes of differentiation, Mayntz (1988) refers to differentiated subsystems only if three conditions are simultaneously met: first, actions and interactions are socially recognized as specific for the subsystem (e.g. economic, religious, or military actions); second, professional roles (e.g. general practitioners, researcher, priest, etc.) exist; and third, specialized formal organizations exist. This latter is a central element of social subsystems. Only with the existence of a formal organizational structure will members of society recognize social subsystems as autonomous, identifiable and definable systems. And in turn, subsystems are only constituted to the extent of the public perception (Mayntz 1988: 20ff.).

In this understanding, the higher education system would represent a specific system of organizations that are characterized by two reference systems: the education system as well as the research system (cf. Luhmann 2009, Braun and Schimank 1992).

### **5.2.1 Teacher education as an organization system**

General teacher education<sup>51</sup> – that is to say, training for the pre-primary, primary and, albeit to a lesser degree, the lower secondary level – has traditionally represented a special domain of the education system. The training was offered by public and private (usually catholic) institutions of the upper or the post-secondary sector under the direct control of the government. Teacher education in Switzerland has always been the exclusive domain of the cantonal education ministries. Teachers were trained for the specific cantonal school systems on the basis of local norms, culture and tradition (for a historic analysis, see for example Criblez 1994, 2002; 2010: 24). The decentralized organizational structure resulted in great diversity, with institutions were situated at different levels: some at the upper secondary level and others at the post-secondary level. Moreover, teacher education has always been closely related to the school system. Student teachers received their practice teaching at public schools located near the teacher education institution, and teacher educators were recruited from the active teaching force. Consequently, traditional teacher education represented a rather closed system that was primarily geared to education and training.

From a system-theoretical perspective, teacher education can be conceptualized as a specific part of the non-university education sector. The non-university education sector has been characterized by functional differentiation along the different occupations into subsectors such

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<sup>51</sup> With the term ‘teacher education’, I will, as a rule, refer to general teacher education; i.e. the education and training of teachers for compulsory schooling at ISCED-levels 0 to 2.

as teacher training, engineering, health or social work.<sup>52</sup> The training for these occupations was organized and supervised either by the professional organizations (e.g. engineering, nursing) or, in the case of teacher training, primarily by the public authorities, although practitioners in the field (teacher educators and teacher organizations) have always been quite influential.

The general action-orientation of these different sectors traditionally lay in the mission to train practitioners of the so-called “semi-professions” (Etzioni 1969) or “minor professions” (Glazer 1974), that is, teachers, nurses or social workers. Their cognitive orientation is characterized with a strong focus on the concrete practice of the occupations, its needs and expectations (see Kyvik 2008). When viewed from this perspective, teacher education is specific insofar as it has always been strongly influenced by the occupation-specific field of the teaching practice. General teacher education draws heavily on the school system, the views and norms of the teachers in the field as well as their expectations. This specific rationale of teacher education and training illustrates the specificity of this sector and explains why it has always been treated separately.

What further differentiates general teacher education from other sectors of the non-university sector is the close relationship teacher education has to the government. Teacher training has always had an important function in securing teacher supply within the education system. This specific function explains the strong interest local governments have always had in controlling teacher education. Since the recruitment of compulsory school teachers in Switzerland is incumbent upon the local authorities, local government officials are generally greatly concerned by structural decisions when it comes to the education and training of teachers. Furthermore, the public has always displayed keen interest in the issue, in particular in the issue of how and where public school teachers should be trained.

Yet upgraded teacher education at the tertiary level also draws on other systems’ cognitive and normative orientations, in particular those of science and academia. This aspect has become increasingly important for the identity of the new institutions of teacher education. Furthermore, the establishment of teacher education at the tertiary level also entails further differentiation within the higher education system, as reflected by the creation of a new institutional type, the universities of teacher education (UTEs). Referring to Mayntz (1988), the establishment of formal organizations – the UTEs – with a specific mission for teacher education, further consolidates this sector and enhances its identity.

Thus, general teacher education is defined as a specific sector of the education system with a mission to train teachers for the compulsory school system. Its general action orientations are

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<sup>52</sup> See, for example, Kyvik (2008), who describes differentiation in non-university education in Norway.

drawn primarily from the non-university education system. But due to its specific relation to the occupational field and to the political system with as a corollary its social responsibilities (normative and cognitive dimension) and its particular institutional form (structural dimension), general teacher training represents a special, distinguishable sector. Structurally, teacher education represents a sector whose action orientation becomes more consolidated through the occurrence of other social systems such as the school system, the higher education system or the scientific system. Teacher education thus represents a complex and institutionalized system of interactions. Yet this organizational field differs from other non-university education sectors as to its institutional and organizational form (which is generally attributed to a specific type of HEI with its own bodies of sector coordination), a cantonal governance regime and in particular the relationship with the universities.

### **5.2.2 Differentiation by teacher category**

When I refer to teacher education, I usually refer to general teacher education (see also footnote 51). Training for upper secondary teachers has always been different from that for primary school teachers, whereas training for upper secondary school teachers – and in some cases, also teachers for the lower secondary level – has traditionally been organized consecutively, i.e. with a disciplinary-oriented training in one or two subjects at university, followed by specific teacher training at university level.

The reason why teacher education for the upper secondary level – and in particular for the general sector with the baccalaureate schools (high school) was (or is) situated at universities, lies in the dominant role of the subject and the disciplinary content for the teaching. This explains the necessity for upper secondary teachers to undergo disciplinary studies in one or two subjects. The university education of upper secondary teachers has primarily been an education within certain subjects, and the rather occupation-specific subjects relating to teaching and learning such as didactics or pedagogy traditionally did not play an important role within university-based teacher education. This illustrates the point that even at university; the basic orientation of teacher education has always been to teach future teachers. Thus, the two different institutional settings in teacher education – at university or at UTEs – did not really differ with regard to scientific orientation. The structural difference between the different teacher categories, which of course determines the status of teachers, was principally motivated by the different requirements for the subject-specific training.

From a systemic perspective, this traditional separation between training for general teachers at non-university institutions and university-level training for upper secondary school

teachers has been constitutive for the entire organization of teacher education in Switzerland and entails structural effects in terms of positioning and status to this day. This situation is reflected by two significant facts: general teacher education has not been integrated into universities (with the exception of the canton of Geneva); and specific HEIs for teacher training (i.e. universities of teacher education) have been established. According to several scholars, this decision not to integrate teacher education into the universities and to install it instead at the level of universities of applied sciences (UAS) led to a mere “partial academization” of the teaching workforce, once again reinforcing their differentiation by school levels (Reusser 1996: 266).

### **5.3 Applying the theoretical framework**

In the following section, I shall now turn to the theoretical framework developed by Schimank (Schimank 1988, 2007) (see chapter 4.5). According to actor-centred differentiation theory,<sup>53</sup> structural effects are explained by the interplay of actor constellations, institutional and structural constellations. This framework (see Figure 4.2, p. 59) will now be applied to the higher education system and in particular to the field of teacher education. To this purpose, I shall discuss each of the three dimensions of the theoretical framework, which are, first, the subsystem-level normative perspectives; second, the institutional settings; and third, the actor constellations.

#### **5.3.1 Subsystem-level normative perspectives**

Individuals’ actions within functional subsystems are oriented by normative perspectives. These general rationales are relevant for the actors of the subsystem as well as for other actors in the way they perceive the former and insinuate specific goals. In this way, functional subsystems shape the reflexive interests of the actors (Schimank 2005: 153). From a perspective of functional differentiation, the cognitive and normative orientations within a specific subsystem would be focused around a single binary code. However, as I have argued above, teacher education does not constitute a societal subsystem of its own; rather, I conceptualize it as a specific sector within the organization system of higher education. Since higher education institutions represent one of the rare cases where two societal subsystems intervene (i.e. the

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<sup>53</sup> However, the chosen theoretical approach involves a rather complex and comprehensive conceptual framework from which it is difficult to deduce working hypotheses. Scharpf (1997) admits this difficulty, common in empirical policy analyses dealing with an “extreme complexity of the factors affecting policy interactions”. Therefore, he recommends for such situations, when the usual statistical testing of hypotheses would not be possible, to focus more on the elaboration of the hypotheses: “[...] in absence of powerful procedures for hypothesis testing, we need to make greater investments in the theoretical quality of the working hypotheses we use” (Scharpf 1997: 16).

education and the scientific system) (see Stichweh 1988; Luhmann 1990; Braun and Schimank 1992), we can assume a similar constellation for teacher education. In an actor-centred analysis of national broadcasting systems, applying Schimank's theoretical framework, Donges (2002) argues that there are often more than only one normative perspective that overlap within a specific subsystem. Accordingly, he distinguishes "dominant" from other normative perspectives (Donges 2002: 125).

In teacher education, following this characterization, the "dominant perspective" (Donges 2002), thus my assumption, is the perspective of the education-system. The central function of teacher education lies in the education and training of future teachers. Teachers have to be taught the general knowledge of what they are expected to teach their pupils. Furthermore, they are taught specific skills and competencies as to how to teach and to organize learning processes as well as how to assess pupils' competencies and learning performance. The same holds true for teachers for the upper levels: they also have to first study all their specific subjects which will enable them to teach later on. This education function of teacher education dominates the normative and cognitive orientations within the system as well as public expectations by actors from politics, the administration or the wider public. The scientific perspective is assumed to play a minor role in teacher education.

From a government perspective, teacher education plays a "service" role in that its primary mission is to train teachers for the school system. In this function, the institutions of teacher education have a monopolistic position towards the political authorities. The political authorities have traditionally always tried to control teacher education as to access, study programmes and content. Therefore, the political perspective is primarily focused on the teachers' labour market. The public school authorities, in their role as monopsonistic employers of teachers, have a particular interest in using teacher education as a means of securing supply and regulating recruitment. Hence, from a public policy perspective, the central aspect is the congruence of teacher education programmes with the school system and staffing with the required personnel. The scientific perspective and the research orientation incorporate another rationale. They depend heavily on the prevalent teacher profile and societal expectations towards teachers. As I am going to explain below, this logic is based on the assumption that professional action by teachers requires scientific based skills and competences as to teaching, educating and making diagnoses (see, for instance, Terhart 2000, Einsiedler 2000 or Reusser 1996).

### *The discourse of professionalization in teacher education*

The upward shift with regard to the educational hierarchy and the positioning of teacher education within the higher education system has also to be seen in the light of the professionalization discourse in teacher education. Conceptions of teacher education are inevitably entangled with concepts of good teaching and thus subject to normative and ideological beliefs. The development of the institutionalization of the teacher preparation is closely linked to the push to professionalize teachers' work. With cyclical regularity, debates on these concepts have taken place since teacher education was institutionalized in the 19th century, focussing primarily on the preparation of teachers, curriculum, institutional setting and quality of training. However, the problem is that most of the arguments in the debates on teacher education are based on normative assumptions. There is still relatively little research- and evidence-based knowledge on the effectiveness of relevant teacher competences (see, for instance, Wayne and Youngs 2003; Blömeke 2004; Cochran-Smith and Zeichner 2006; Lipowsky 2006).

Teaching has been increasingly challenged by movements of rationalization which affect both organizations and professional practice (see, for instance, Bourdoncle and Demailly 1998). These developments of professionalization represent different strategies for strengthening professional identity, reforming teacher education or raising the status of the teaching profession.<sup>54</sup> However, there are contradictory claims that compromise the development of a professional identity: the imperative of rationalization, the wish to professionalize, the need for a consensus on their social role and the uncertainties on the goals of teachers' action. Research-based approaches to teaching also challenge traditional conceptions of teaching as a special craft or an art as well as the romantic ideal of teaching espoused by the progressive education movement (Böllert and Gogolin 2002). By now, however, most European countries have raised teacher education to the tertiary level and have integrated it into the university system (see Moon 2003: 323; OECD 2005: 1012). As a result, teacher education has undergone a relatively intensive process of scientification.

### *Teachers as professionals and experts*

Conceptions of teacher education build on discourses of professionalization of teachers. Two main currents can be distinguished: a systemic and structural approach from sociological theories, and a psychological and cognitive approach theorizing teachers' knowledge (Terhart 2000). The first perspective argues that professionals are competent when they are capable of

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<sup>54</sup> Cf. Terhart: "[...] tradierte praxeologische Vorgehensweisen [werden] zunehmend durch wissenschaftlich begründete Unterrichts- und Erziehungsstrategien abgelöst." (Terhart 2000: 89)

reconciling scientific knowledge with practical skills. Therefore, these proponents argue for a solid university education at master level (cf. Helsper and Kolbe 2002). Helsper and Kolbe (2002) assume a structuralist position in emphasizing the role of reflexion in the development of a skill basis (see also Oevermann 1996). Professional pedagogic actions need to be reflected, and implicit knowledge and interpretations should be made explicit. As a consequence, curricula in teacher education should be restructured and opportunities to enhance this reflexive scientific approach should be strengthened within the framework of a scientific study.

Professionalization and habitualization depend on the framework of a scientific study in the first phase of teacher preparation. Two aspects of teacher competencies are to be prepared in this phase: first, a case-related reflexion dealing with concrete material from praxis in the context of scientific training and second, and an investigative habitus to relate to praxis when dealing with scientific theory (Helsper and Kolbe 2002):

Ohne forschenden Habitus gelingt es nicht, im Umgang mit Erfahrungsmustern und Stereotypen die Krisen der eigenen Routinen zu bewältigen, also eigenständig ein reflexives Erfahrungswissen aufzubauen und ständig weiter zu entwickeln. Tragend dafür ist eine Arbeitsform forschender Wissensaneignung, also die Integration der Studierenden in das forschende Prüfen der Geltung von wissenschaftlichen Aussagen, deren Formulierung eine kritisch-reflexive Distanz zur beruflichen Praxis entstehen lässt. (Helsper and Kolbe 2002: 394)

The complexity and unpredictability of action within teaching require a critical reception and comprehensive perception of knowledge in the respective subjects, namely, education sciences and didactics. Therefore, a clear orientation on research within the education and training of teachers, which also implies the active participation of students in concrete research projects, would be needed (Terhart 2000: 88ff.). Likewise, Reusser (1996) argues for upgraded university-based teacher education:

Es ist nicht einzusehen, warum die Bildung von Lehrerinnen und Lehrern sich nicht der orientierenden Kraft der Wissenschaft und des forschenden Lernens aussetzen bzw. von geringerem gesellschaftlichen Wert und Anspruch sein soll als die Bildung von Mediziner, Pfarrern, Juristen oder Apothekern. (Reusser 1996: 265)

Reusser (1996) maintains that all categories of teachers should be trained at universities. In particular, he argues that the university status of teacher education would in future secure the recruitment of a high quality workforce in teaching (Reusser 1996: 265). However, although the necessity to professionalize teacher education is widely acknowledged, claims for a more scientific approach in teacher preparation remain controversial. The professionalization of teachers is a large and controversial discourse, particularly when the conclusion derived is further scientification. Yet the idea that professionalization of teacher education would only mean increased scientific orientation is rather reductionist, for professional teachers need not



only a scientific background but also practical skills and competences to apply in the individual case.

On the other hand, there is a more pragmatic approach towards trying to define teacher expertise in terms of today's requirements of teaching. This approach analyses the professional knowledge and skills of teachers: what are the cognitive requirements of knowledge-based professional performance? Professionals are thus conceptualized as experts in a highly specialized occupation with complex tasks where both theoretical knowledge and practical experience are required. Seen from this perspective, the two dominant discourses are, on the one hand, the discourse of the competent teacher, propagating a competence-based model of teacher education (i.e. the teacher as a trained professional), a quasi-scientific perception of teaching and learning, focusing on universal skills and techniques applicable to the teaching situation; and, on the other hand, the reflective practitioner discourse (cf. Schön 1983), an approach that factors in the complex and contingent situation of teaching practice which is only partially learnable.

### **5.3.2 Institutional settings**

Actors' reflexive interests that have been identified by the subsystem-level perspectives are further specified and concretized by the institutional setting. Institutions are regulating systems (e.g. formal legislative, political rules, and social norms) that orient and structure individual actions; they help actors to perceive and to adapt their orientation in concrete situations (cf. Braun 1993; Scharpf 1997; Schimank 2005). Institutions are important influencing variables for actors and their interactions. Collective and corporative actors are institutionally constituted, and must coordinate their actions within a collective and institutionally defined framework. Institutions frame decisions and define how to interpret and evaluate the results of their actions and decisions, such as they determine the actors' preferences regarding different options (Scharpf 1997).

Regarding the institutional setting of the teacher education system, governance structures play a central role. The mode of institutionalization affects normative orientations of actors and formal organizations of higher education. In this respect, the organizational structure and environment are relevant; whether, for instance, a particular UTE is organized as an independent HEI or as a department, integrated into a larger HEI such as an UAS or in a traditional university. Organizational integration into a UAS would substantially restrain the strategic options of a UTE. Thus, it makes a difference for HEIs of the college sector whether there is a general trend in higher education towards academic drift and a development towards the model

of the research university (Bleiklie 2005). This could then mean that stratification would have a fragmenting rather than an integrative effect. On the other hand, the organizational form also implies certain normative and cognitive provisions. A system of teacher education that is fully integrated into a university would consequently have to comply with the rules of the academic corps.

From the structural dimension, the governance structure is further relevant for the institutional setting in terms of autonomy. Thus, teacher education is dependent on the political system as to regulation and funding. Furthermore, political responsibility for teacher education is institutionally defined. Teacher education in Switzerland is regulated at the cantonal level; there is no legislative body with competencies in this matter at the federal level. Consequently, the cantons are powerful players in the system. Yet not every canton has its own UTE. Therefore, smaller cantons have created regional consortiums in order to establish a UTE. The effect of such governance forms is that direct control of teacher education by the cantonal authorities becomes more difficult and the need for coordination among the involved cantonal governments increases<sup>55</sup>.

Another important institutional factor that shapes the action strategies is the level of cooperation and consensus within the system. A key characteristic of the Swiss political system is its consensus democracy with a high level of cooperation. There are considerable institutional constraints that impose cooperation within the Swiss federal system (see, for instance, Germann 1996; Knoepfel 2000; Griessen and Braun 2010). These mechanisms, such as direct democratic procedures (e.g. referenda), symmetric bicameral legislature, federalism, and a fragmented party system, determine the strategic options of the actors and must be factored into the analysis.

On another level of the system, we identify relevant institutional settings with regard to access to teacher education. The UTEs, like the universities, require the general baccalaureate as a regular entry qualification.<sup>56</sup> However, there are several exceptions to this rule, and at times of acute excess demand for teachers, there is strong political pressure to relax these requirements. As a consequence, we can observe much higher proportions of students at UTEs who do not have acquired a general baccalaureate (SCCRE 2011: 231). Besides the issue of access, the UTEs are also less selective as to study programmes and graduation rates (ibid.: 234). We may assume that these differential characteristics of the UTEs compared to tradition-

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<sup>55</sup> Cf. the analysis of university governance in a principal-agent perspective showing that the board governance of multiple universities increases the cost of politicians' control compared to a simple board-university relationship and increases educators' influence (Toma 1986). Applied to the situation of an intercantonal UTE, one can assume that the costs for the political authorities of controlling the UTE increases and that consequently the influence of the UTE's direction in the political process increases.

<sup>56</sup> Cf. in German "gymnasiale Maturität", or in French "maturité gymnasiale".

al universities or other HEIs likely entail different mechanisms of self-selection into the several types and categories of HEI. Lower access requirements for the UTEs, whether effectively or just presumably, will gradually attract lower-performing students to teacher education. This will inevitably affect the functioning of teaching at the UTEs, the effectiveness of the study programmes and possibly the status and reputation of this type of HEI as well as of the teaching profession in general.

A further important institutional trait of the UTEs is that they do not possess the right to award doctoral degrees. This prerogative is restricted to the classical universities. Consequently, the UTEs as well as the UAS have to rely on the universities as to the reproduction of the academic staff. However, the problem of academic self-reproduction would not be solved only by introducing doctoral education into the HEIs of the non-university sector. The traditional universities are self-reproductive insofar as their disciplinary teaching assures the training of the next generation of university staff. This is different for the UTEs, as their practice-based training by practitioners is not scientifically and disciplinary based. The academic personnel at the UTEs do generally not assume practical training, while practitioners among the teacher educators do not assume scientific disciplinary teaching. Thus, the typical teaching personnel at the UTEs do not prepare their students to become teacher educators. As a result, the recruitment of the UTE teaching personnel is not trivial and not as evident as for the universities.

### **5.3.3 Actors and actor constellations**

Actors see themselves confronted by other actors who pursue their own goals and interests with their own strategies and resources. From this interplay results a specific structure of actor constellations. An actor constellation “describes the players involved, their strategy options, the outcome associated with strategy combinations, and the preferences of the players over these outcomes.” (Scharpf 1997, 44). Actor constellations enable or restrict actors’ behaviour (Mayntz and Scharpf 1995a; Scharpf 1997; Schimank 2005). Actor constellations affect individual actions; structurally, actions are facilitated or hindered by other actors’ interests, resources and strategies; and in normative-cognitive dimensions, actions are affected by the fact that actors mutually observe each other; interpret and evaluate their situation; and perceive their mutual expectations. Actor constellations represent an important link between substantive policy analysis and interaction-oriented policy research (Scharpf 1997: 69).

Within the higher education system, we can see that actor constellations have become increasingly complex in recent years. In structural terms, we can distinguish system actors (internal to the system) and non-system actors (external to the system); then, we have to

consider actors at different levels of the federal governance system that characterizes the Swiss higher education system (Perellon 2001). The principal organizations structuring the higher education system are the different types of HEIs: the cantonal universities, the Federal Institutes of Technology (ETH), the universities of applied sciences, and the universities of teacher education as well as their respective sector organizations. Within the sector of teacher education, the several UTEs represent the principal corporative actors that can themselves be further subdivided into several actor groups within the organization such as management (directors, rectors, heads of departments etc.), teacher educators, researchers, and students. Next come the cantonal governments, and in particular the education ministries with high-level officials responsible for higher education policy. Besides the ministries, the cantonal legislatures, the councils, are important for they are responsible for the legislative basis of the UTEs. At the national level, we can distinguish the federal government, the federal parliament and the ministries. Finally, the conference of the cantonal education ministers, EDK, represents an important actor which has played a key role in teacher education policy since the beginning of tertiarization. Further, groups such as teachers in the school system, their professional organizations and unions, as well as the students are relevant actors in the field.

In the education system, the traditional strategy is to cooperate on the horizontal level within specific coordinative agencies at the national or regional level. Thus, the cantonal education ministers join in the Swiss conference of cantonal ministers of education (EDK) or in regional sub-conferences. Within the EDK, cooperation is realized by means of so-called concordats – intercantonal agreements adopted by the members of the conference.<sup>57</sup> As for higher education politics, the situation is complex, since federal authorities also control higher education and research. Consequently, the cantons and their policy conference must first agree on a modus of cooperation, and the cantons insist on being adequately involved in the legislation process of the federal parliament. Furthermore, sector organizations such as the university rectors' (CRUS) or the UAS rectors' association (KFH) are also major actors in higher education (Perellon 2001).

Further actors in the sector of teacher education are the professional associations of teachers. They traditionally represent powerful actors that can influence politics via the political parties and the cantonal councils. They impose their understanding as to the teacher profile and have their own interests as to the way teachers are trained. In their general aspiration to increase the status of the teaching profession, they are also interested in increasing the academic

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<sup>57</sup> Most of these concordats were adopted previously by the cantonal councils or even via referenda. Nevertheless, there exists a critique from democracy-theoretical perspective questioning a certain lack of transparency and the deficit of democratic legitimation, since such cooperation by governments and administration tends to exclude parliaments and citizens (Klöti 2000: 25).

status of the UTE, although this might run counter to the occupation-specific orientations of individual teachers. Eventually, the students opting for teacher education are influential aggregated actors since their educational choices also affect the status of the institutions. Students' self-selection of HEIs results in different composition and structure of the student body, which in turn affects productivity of the training as well as the general status of the HEI. In other words, students' self-selection into institutions of higher education depends on cognitive normative orientations, on a given institutional framework (e.g. the specific local supply of higher education) and on the concrete actor constellations (e.g. the number of potential students, their study ambitions, the recruiting strategies and requirements of the aspired HEIs, the recruiting policies of UTEs in an environment of teacher shortages etc.). In turn, the students' educational choices affect structural outcomes in terms of system differentiation, status and position of HEIs and, as a corollary of the self-selection, notably the outcome of the training. Furthermore, it has to be considered that students' dominant preferences and orientations can affect the institutional strategy of a UTE insofar as a pronounced academic drift might contrast with students' cognitive orientations and preferences and expectations.

For an overview over the different actors involved and the possible constellations, the table below (see Table 5.1) presents the key actors in the field of teacher education and depicts their strategy options as well as the relevant issues at stake:

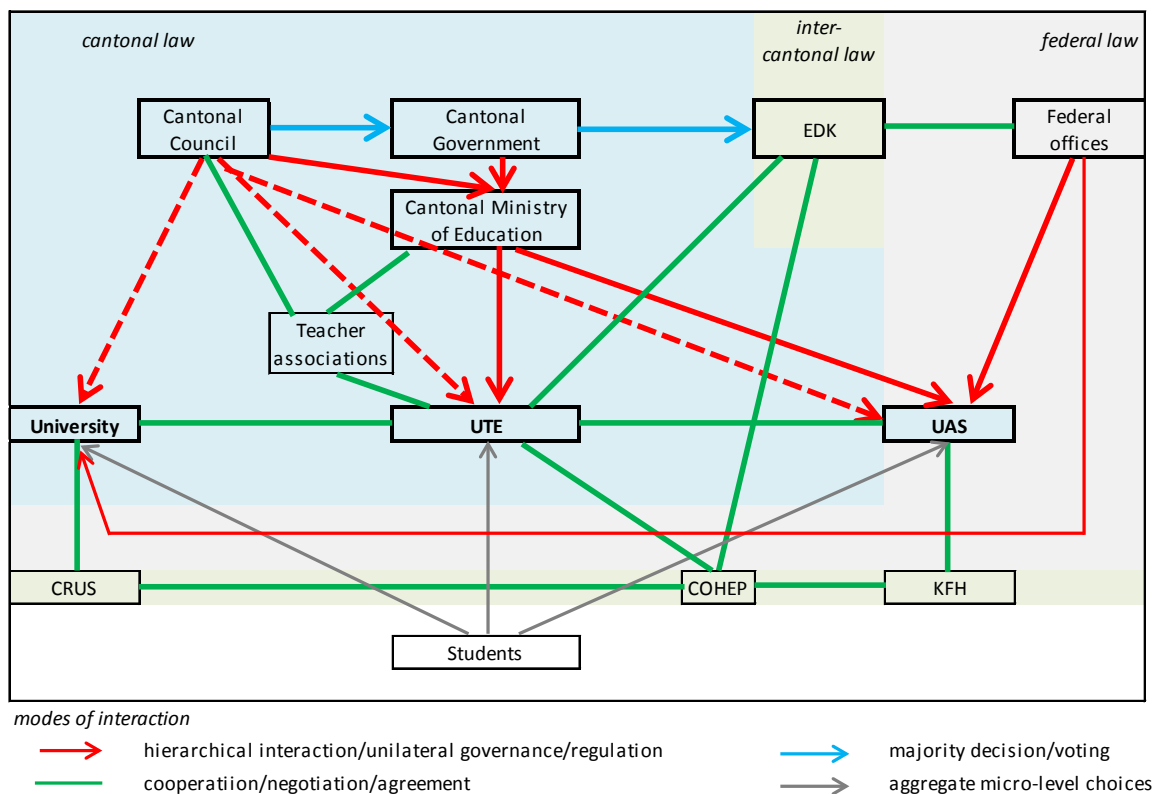
**Table 5.1: Actors in teacher education**

<i>actor/actor group</i>	<i>strategy options</i>	<i>issue at stake/questions</i>
UTES	increase institutional autonomy increase institutional weight by attracting more students affiliate/integrate with other HEIs enhance research function	organizational strategy organizational choice regarding the integration of research choice of research profile
university	cooperation with UTEs competition with UTEs	attitude towards the UTEs
UAS	enlargement of scope by integrating further subjects and domains cooperation/competition with UTEs cooperation/competition with universities	attitude towards the UTEs organizational strategy
cantonal council	keep control of cantonal institution of teacher education structural differentiation in HE integrate teacher education into university or UAS	degree of autonomy given to the UTEs acceptance of UTEs' research profile

cantonal government cantonal ministry of education	establish and keep own cantonal UTE institutional cooperation with intercan- tional solution	relationship to the HEIs acceptance of UTE's autonomy
Swiss Conference of Cantonal Ministers of Education (EDK)	increase harmonization of UTE via intercantonal regulation enhance differentiation by institutional type enhance integration into university	claim to harmonize between UTEs
teacher educators at UTE	integrate research into own teaching oppose teaching and research	acceptance of UTEs' strategy to further academization
researchers at UTE	enhance scientific orientation of UTE (academic drift) link research to teaching	perception of differences between HEI types
teacher unions, professional associa- tions	differentiation by type integration into university	attitude and acceptance of UTEs' organizational strategy
teacher students at UTE	academic orientation practical orientation	motivation to study at UTE

According to Scharpf (1997: 44f.), the description of actor constellations is a means to represent and to compare configurations of different policy actors involved at an abstract theoretical level and to identify diverse conflicting forces. Furthermore, his "mapping" seeks to identify systematic deviations between politically defined and socially perceived functions within a policy field (Scharpf 1997: 46).

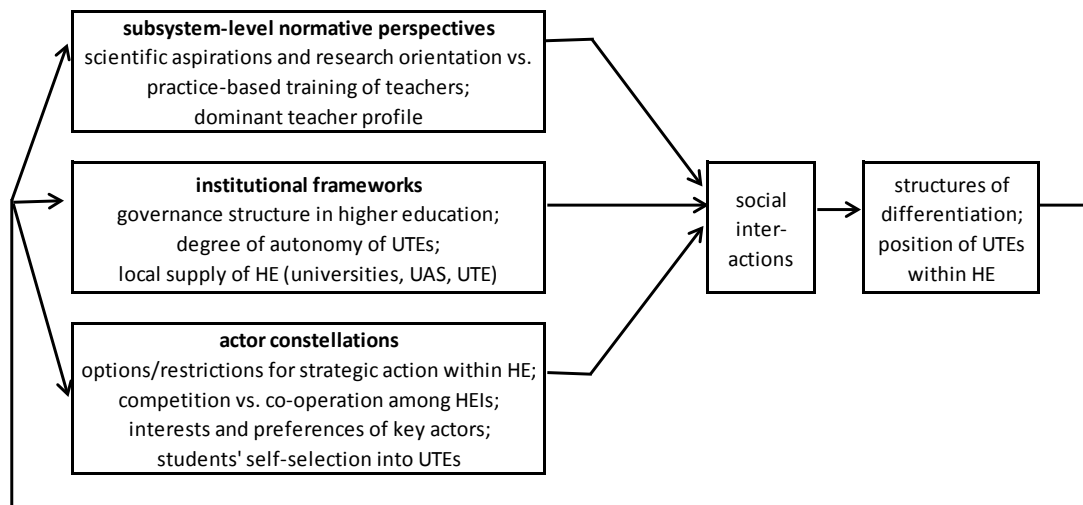
The mapping of the actor constellations in the Swiss higher education system reveals particular patterns as to governance in teacher education policy. On account of the respective regulative and institutional setting (which determines actors' resources), a general model of governance can be represented. It is a generic model since it does not allow for the specific situation of a particular UTE; rather, it visualizes the key actors' spheres of competences (see Figure 5.1). The figure shows that governance in teacher education is realized principally by the cantonal authorities, who assume direct control, and by the EDK based on intercantonal agreements. Whereas the cantonal authorities exercise direct control based on regulatory power within a hierarchically structured setting, the EDK's influence is rather coordinative and based on negotiation and agreements. As a result, the power of the canton over its UTE is quite substantial.

**Figure 5.1: Actor constellations and modes of interaction**

Source: author's own representation

If, however, there were several cantons funding one regional UTE, this direct cantonal control over the UTE would change considerably because the authorities of the individual cantons would first have to coordinate and to agree on their policy regarding the UTE. This would, when viewed from a principal-agent perspective, increase the costs for specific actors within a single canton and thereby increase the power of the UTE (see, for instance, Toma 1986). Similarly, the transfer of competences in teacher education from the cantons to the federal government – as was the case for nursing and social work – would certainly reduce the cantons' governance power. And finally, it can also be shown with this diagram that the existence of other types of HEIs within a canton affects the position of the UTE in terms of resource allocation, provision of higher education studies and study options for potential students.

The figure below (see Figure 5.2) integrates the different structural aspects of the higher education system that have been developed and discussed so far and represents them in the form of an analytical framework. Key elements for each of the three analytical dimensions – the subsystem-level normative perspectives, the institutional framework and the actor constellations – are given for illustration purposes.

**Figure 5.2: Analytical framework**

Source: Author's own representation, adapted from (Schimank 2007: 223)

## 5.4 Outcome variable: Structures of differentiation

In the analytical framework presented above, the structural outcome in terms of system differentiation or the position of HEIs is modelled as the result of actors' interactions within a specific actor constellation and institutional framework. Thus, the structure of differentiation represents the dependent variable of the model, although the theoretical propositions involve interdependent effects insofar as a certain structural outcome in turn reproduces structures of the cognitive orientations, the institutional setting and the actor constellations (Schimank 2007: 223).

In concrete terms, the analysis to be undertaken has to give account of the structural outcome in terms of system differentiation. The analysis has to identify dynamics of differentiation within the higher education system that take place with the integration of teacher education. The question is to what extent the system differentiates with the creation of specific cantonal institutions for teacher education. And furthermore, it has to be assessed whether the system tends to further differentiate or rather to converge into a single model of HEIs due to the strategic actions by UASs and UTEs.

Closely linked to the structural differentiation is the positional issue. The structural dynamics related to the integration of new institutions of teacher education are also characterized by a struggle for position among the actors involved in higher education. In this regard, these dynamics and the institutional development of the non-university sector will result in a particular structure of the higher education system offering specific positions to different types of HEIs.



### 5.4.1 Dimensions of differentiation

The discussed configurations in higher education and in particular in teacher education, involving cognitive-normative orientations of the education as well as the research system, combined with the specificity of a binary differentiated higher education system, relate into salient positional conflicts. The structural positions depend on the one hand on the relationship between teaching and research of HEIs, which transfers to the specific research profile identified by the scientific orientation; on the other hand, the position of a HEI depends on the relationship between general and vocational orientation or the degree of occupational specialisation.

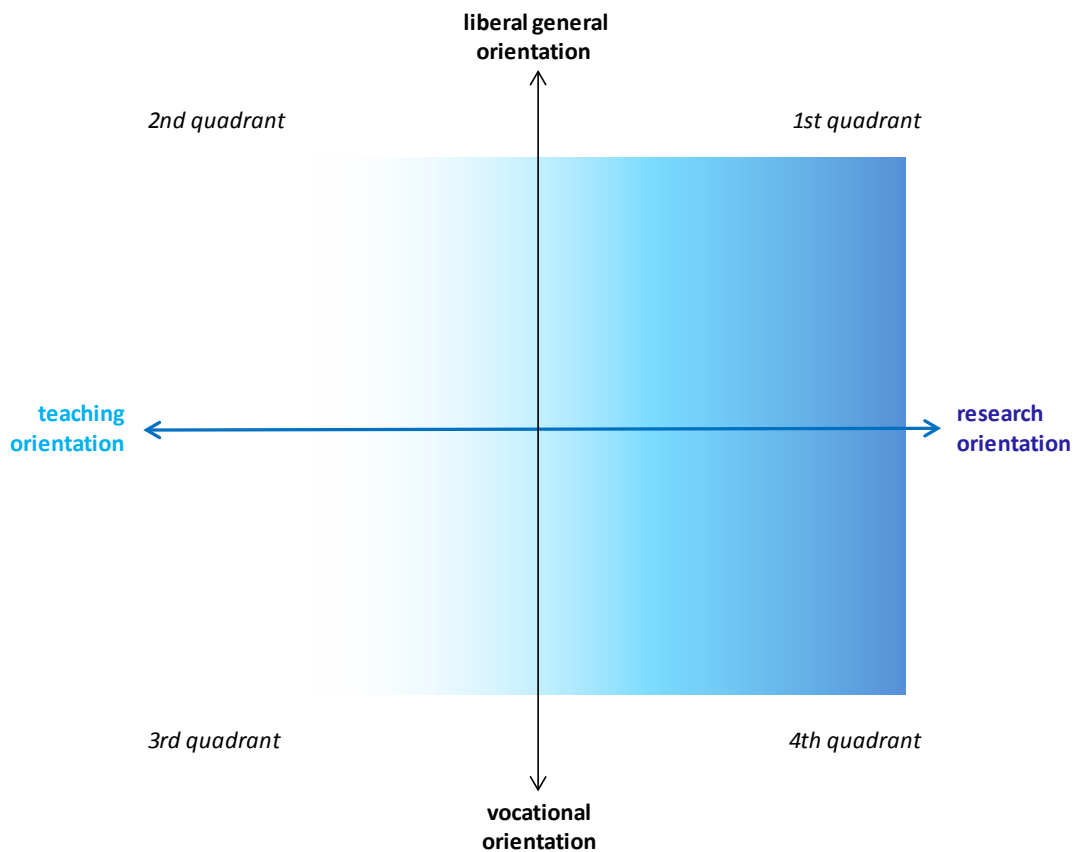
The dimension of occupational specialization has a crucial function in differentiation of higher education systems. Bleiklie (2005) relates to this dimension in terms of the “degree of vocational specialization as opposed to liberal generalist orientation” (Bleiklie 2005: 39). According to Bleiklie, this relationship varies across disciplines and subject areas, over time and across countries. The variation across subject areas depends on the influence of professional associations in terms of curricula, access and selectivity. Variation in time is due to the general development of higher education, and cross-country differences are related to different cultures and traditions as to the importance of occupational specialization (Bleiklie 2005: 39).

The other dimension relevant for differentiation in higher education relates to the research intensity, the extent of research orientation a HEI pursues<sup>58</sup>. This dimension is often linked to the types of degrees offered and the duration of studies. It is the classical vertical differentiation based on the research profile of the HEIs as it has been introduced by Trow (1974). This dimension, distinguishing for instance between so-called research universities and colleges, or long-cycle and short-cycle sector, generally reflects the vertical hierarchy based on the research profile and academic status of HEIs (cf. chapter 3.2.1, p. 23).

The figure below depicts these two dimensions within a Cartesian coordinate system (see Figure 5.3). The research function is given by the blue horizontal axis representing the dimension from a mere teaching orientation (at the left) towards a high research orientation (at the right). The intensity respectively the weight of the research orientation is given by the blue background colour: the darker the colour, the stronger the research orientation.

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<sup>58</sup> Cf. Teichler (2006a: 451) who argues that the research function plays an important role for the reputation of the sector, but that it “is hardly addressed in further specification where the teaching function play a central role.”

**Figure 5.3: Structural dimensions of the higher education system**

Source: author's own representation

The second axis represents the dimension liberal general vs. vocational orientation. This dimension traditionally served as key criterion to differentiate between a university and a non-university sector in higher education systems. General studies traditionally focus on the liberal arts (*artes liberales*), i.e. the classical disciplines such as philosophy, history, literature, mathematics, music, pedagogy, psychology, etc. –in other words, the humanities. The liberal general orientation is opposed to the vocational, occupational orientation characterizing studies that prepare more directly for an occupation or a function in the labour market (e.g. management) and lead to readily employable grades (e.g. engineering, nursing, architecture, etc.). The introduction of a second dimension representing the research function, finally allows for the differentiation between a university and a non-university sector. By means of this matrix, structures of differentiation within higher education can be represented on account of the degree of vocational orientation and specialization as well as of the research profile of HEIs. The central question is now where the new institutions of teacher education are to be positioned within this matrix, taking into account their specific profile with regard to their research intensity as well as the degree of vocational orientation.

## 5.5 Hypotheses

To conclude this section within which I developed the analytical framework, I shall make an attempt to derive assumptions and hypotheses from the exercise of applying the theoretical framework to the concrete field of teacher education. In doing so, I shall focus in particular on cognitive orientations, actor constellations and corporative actors' interests, as well as possible outcomes in terms of structures and patterns of differentiation within the higher education system. However, in order to formulate concrete hypotheses, the interests of specific actors and actor groups must be concretized, for the analytical framework primarily serves as an analytical tool and does not involve concrete predictions. Actors' interests and goals for action are therefore specified on the basis of assumptions and theoretical explanations from a broader range of concepts, such as has been discussed above.

### *Primacy of the teaching function*

As to the system-level normative perspectives, the teaching function assumedly still prevails in teacher education. As has been explained, the dominant cognitive orientation in teacher education is the school system and teachers' practical work in schools. Accordingly, the teaching function dominates in teacher education despite the introduction of a research function. For a majority of actors, the primary mission of teacher education is to teach and to train teachers for the education system.

The fact that with the UTEs a new institutional form has been introduced specifically designed for the training of teachers can be interpreted as the expression of a compromise between those advocating for teacher education at universities and those opposed to any tertiarization and academization of teacher training. Consequently, if there have not been any changes in the system-level normative perspectives regarding teacher education, one can assume that the institutional setting and the form and function of the UTEs have not changed substantially since their conceptualization. Or to put it the other way around, a change in the higher education structures – be it the differentiation or convergence of UTEs relative to the universities – would have required changes in the cognitive, normative orientations, the institutional framework, and the actor constellations within the higher education system and in particular within the field of teacher education. Thus, as long as the cantons running UTEs do not see the need to transfer teacher education to the universities or to turn the UTEs into full universities, the general structures in higher education can be assumed to be rather stable.

The dominance of the teaching function hinders the establishment of research and development as an autonomous activity within UTEs. Conflicts between the two functions of

education and research are likely. Moreover, the autonomy of research is at risk due to its weak legitimation for scientific teaching. Consequently, it can be assumed that the less research is integrated into teaching, the more it has to derive its legitimation from its utility of the political system, as a result of which it tends to be driven by political goals.

However, the integration of the research function and the implementation of a stronger scientific orientation within teacher education will probably affect actors and actor constellations within the system. Thus, the integration of teacher education within higher education sets off a dynamic with unforeseen consequences, for the newly attributed research function and the role played by research in institutions of higher education have altered the relationship between teaching and research within teacher education.

The relationship of teacher education with the scientific system is characterized by the fact that the more teacher education seeks scientific recognition, the more teacher education becomes dependent on the scientific system and has to adopt its cognitive and normative orientations. Furthermore, the recruiting of scientific personnel at the UTEs increasingly contributes to a change in actor constellations within individual UTE: the more highly qualified teaching staff is recruited, the more academic values and scientific orientation gain in importance and influence. This in turn can lead over time to changes in the institutional setting, when actors from the UTEs increasingly claim the same academic prerogatives as universities.

#### *Unsolved conflict between teaching and research within the universities of teacher education*

On account of the assumptions from professionalization theories, the strategy to higher occupational standing would lie “in replacing the professionals and the practitioners with the scholars and the research workers” (Glazer 1974: 350). Yet such a strategy will probably not be supported by all teacher educators depending on their background. Those coming from the teaching practice (i.e. professionals and practitioners from the field with additional further training or even a university degree) would presumably tend to identify with the traditional role of the teacher educator as a professional with occupational experience. Although they would agree on the need for scientifically based teacher education, they would prefer to adopt a mere recipient role as to research and not identify with the role as active researchers. Those with a stronger scientific background and their own research experience would rather tend to identify with the academic scholars. However, such an actor constellation could be a source of conflict, since strategies of future development of teacher education enhancing the research orientation are not very compatible with the common teaching approach by the traditional teacher educators.<sup>59</sup>

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<sup>59</sup> On this issue, see, for instance Kamm (2007) with a cultural analysis of the transformation of a former normal school into a university of teacher education.

The latter cannot really compete with university scholars, so the academic drift of the UTEs would put them at risk. The only way to secure their position within the organization would be to defend the status quo.

In contrast, research-oriented faculty members in teacher education would not benefit from a differentiated system where teacher education was positioned lower in the hierarchy since they compete with other researchers for scientific reputation (cf. Braun 1993: 214). Therefore, they would prefer to claim equal conditions compared with the universities as to employment, salary, time for research, academic prerogatives, etc. Their goal must be the positioning of teacher education at university-level, or at least to have equal status. Naturally, the tendency of academic drift in higher education is rooted in such reasoning (see Rhoades 1990; DiMaggio and Powell 1991; Neave 1996).

On the other hand, in a clearly differentiated system where the non-university sector is characterized by a less pronounced research orientation than the universities and where the doctoral education is reserved for the traditional universities, the UTEs would probably recruit less well-qualified researchers. The HEIs of the non-university sector would thus become the second-best alternative for university graduates and researchers, and self-selection by the research personnel as well as by the students would probably affect the composition of the UTEs. The more the new UTEs intend to rely on scientifically high qualified academics, the more the specific actor constellations of the scientific professionals in teacher education have to be considered. Researchers invest successively in reputation and recognition by their own reference group, which makes later occupational changes improbable (cf. Braun 1993: 215). The conflict between the two divergent systemic orientations – teaching vs. research – will become more pronounced as long as the UTEs have not clarified the relationship between teaching and research.

#### *Divergence of interests between researchers and students in teacher education*

The differentiated system organization with specific characteristics of the UTEs (e.g. in terms of access or selectivity) accentuates self-selection into teacher education with the consequence of a significantly different student population at UTEs than for instance at universities (cf. Birnbaum 1983: 47; Meek et al. 1996). Furthermore, an enhanced research orientation of the institutions of teacher education could conflict with students' preferences and expectations. Teachers do not possess a specialized technical knowledge and a professional authority as do for instance medical practitioners or lawyers (cf. Luhmann 2002: 151).<sup>60</sup> The teaching occupa-

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<sup>60</sup> Cf. Luhmann (2002), who does not consider disciplinary tuition as being professional, as it aims to impart and transfer knowledge, whereas this does not apply for professions: "Der Fachunterricht ist auch deshalb nicht professionell, weil er

tions, and similarly nursing or social work, are thus rather described as “semi-professions” (Etzioni 1969) or “minor professions” (Glazer 1974). These “minor professions”, although they also entail training at university in many countries, encounter the problematic training situation where their teaching staff are scholars based in one of the established academic disciplines that teach them as students who will become practitioners and not scholars in that discipline<sup>61</sup>. Furthermore – and this is the source of many conflicts – the status of the academic disciplines providing much of the curriculum and the training of most of the faculty staff is higher than that of the profession for which students are being prepared (Glazer 1974: 349). In medicine or in law, for instance, students are taught by members of the profession for which they are being prepared<sup>62</sup>; this is not the case for school teachers. This situation thus has a potential for conflict when the interests and demands of the teacher educators do not meet the interests and expectations of the teacher students (Glazer 1974: 353).

#### *Political interest in a differentiated system of higher education*

Political actors generally have two goals as regards higher education systems and the subsystem of teacher education: first, they want to control the system through regulatory instruments; and second, political actors (here primarily corporative actors) pursue interests of power – they want to gain, increase and secure power and influence. Within the decentralized organizational structure of the Swiss education system, the cantons can exert their influence in higher education policy at the national level by means of cantonal HEIs which they fully control. This is the case with the UTEs as institutions of sole cantonal responsibility. Moreover, political parties can use direct democratic procedures in order to impose their views on how to organize teacher education.<sup>63</sup> Political actors do not really have an interest in changing the institutional framework and governance of the UTEs. As long as the cantons keep the UTEs in their sole competence, they have their own institution of higher education at their disposal and they maintain direct access thereto. Furthermore, they can better control teacher education. In contrast, in

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eine Übertragung des Wissens auf den Klienten anstrebt, während für Professionen das Gegenteil zutrifft. Kein Arzt will seinen Patienten zum Mediziner, kein Jurist seinen Klienten zum Juristen machen [...]. Auch der Lehrer arbeitet daher nur insofern professionell, als er ein Wissen und Können benutzt, das er nicht lehren, nicht übertragen will.“ (Luhmann 2002: 151).

<sup>61</sup> See also the reflections on academic self-reproduction in section 5.3.2.

<sup>62</sup> For example, physicians teach medical students, and law professors commonly assume counselling activities as lawyers or hold posts as alternate judges. Thus, as to the concrete professional activity, the university teachers within these professions easily outperform their students. This is not the case with UTE teachers. Most of them are not practitioners in the sense that they do not have a long experience as teacher in schools, nor do they still teach children. Consequently, they are not really expert in the teaching practice, and – more importantly – are not perceived as such by their students.

<sup>63</sup> For example, conservative parties used referenda in the cantons of Bern and Zurich to fight the proposed law on the establishment of a university of teacher education (see section 16.2).

higher education policy regarding the universities or the UASs, the cantons must respect federal law and therefore share their competencies with the federal administration.

Rhoades (1990) explains structural change in higher education with system access by non-academics. Accordingly, the extent to which academic drift by the UTEs will occur depends on the power balance between the academics and other actors within the UTEs, further actors within teacher education such as professional organisations and unions as well as cantonal legislative and government. The more influence non-academic actors have and the more they are opposed to the academization of teacher education, the less academic drift will occur and the better a differentiated higher education structure can be maintained. The more lay groups have access to the political process, the more formal differentiation is effective and the less academics are successful in shifting toward the university model (Rhoades 1983).

According to Rhoades (1990), the power balance between academics and external lay groups affects structural outcomes like differentiation within the higher education system. His thesis is that differentiation only occurs if external lay groups have access to the political process and can promote new or alternative institutional forms of higher education. This is because academia rather inhibits differentiation and provokes an inevitable tendency towards academic drift; lower status HEIs or those with alternative forms will over time drift towards traditional academic patterns of organization and work (cf. Neave 1979; Rhoades 1990; Neave 1996):

[The academics] are the system's vested interests, and constitute an obstacle to further differentiation. Competition in higher education is for status and legitimacy, encouraging conformity to prevailing models rather than attempts by organizations to distinguish themselves from their competitors. (Rhoades 1990: 191)

Comparing several national higher education systems, Rhodes shows that in countries with strong centralized bureaucracies, academics have greater access and influence in their position as professional experts and institutional insiders; conversely, lay group access is greater in systems in which the legislative authority is powerful vis-à-vis the executive authority and where lay groups are more present and active as an independent force in higher education. Thus, the absence of lay involvement in France or the strong dominance of the executive authority and administration in England enabled academics to resist successive efforts aimed at differentiation (Rhoades 1990: 204).

Applied to the Swiss political system, I would therefore deduce that the strong federalism and the consensus-oriented cooperative system with the involvement of actor groups besides government and administration (Perellon 2001; Griessen and Braun 2010) rather favours lay group access and influence at the expense of academics. Hence, political actors such as canton-

al councillors, the cantonal government as well as interest groups intervene extensively in teacher education politics and form counterbalances to the tendency towards academic drift by the UTEs. Furthermore, the occupational organizations and associations of teachers have traditionally been involved in education politics at every level of the political system. As to the conception of the reform of teacher education, the teachers' interests have always been very well represented by their professional organizations. At the federal level, the teacher organizations were often associated as professional experts to the official commissions.<sup>64</sup> Generally, I would assume that the teacher associations have an overall interest in a occupational education that distinguishes them from other occupations and ensures their status. Therefore, they can be assumed to be in favour of an upward shift in teacher education. Since they will have a greater access within a differentiated teacher education system rather than in a model where teacher education would be integrated within universities, they will probably prefer to keep the status quo with the existing UTE. From a structural perspective, it can be assumed that professional associations adopt professionalism strategies as a means to gain autonomy and influence in the role of professionals in relation to policy and administration (Beck et al. 1980). Thus, professional groups try to impose certain conditions required for professional practise.

However, the specific institutional setting of the UTEs as new types of HEIs with their exclusive cantonal affiliation keeps the UTEs closer to the cantonal authorities of education than the other types of HEIs. The cantons use the UTEs to address specific recruiting problems. This dependency is somewhat reduced in the case of those UTEs that rely on an inter-regional body (intercantonal organizing body)<sup>65</sup>. Thus, the greater the autonomy of a UTE and the less it is tied to the cantonal authority, the more it can develop tendencies of academic drift (Bleiklie 2005).

### *Summary*

To summarize the above arguments, it can be stated that, although the UTEs' academia tend towards further academization of teacher education and enhancement of the scientific orientation, the forces maintaining the traditional primacy of teaching and the dominance of the school system orientation within teacher education are assumedly strong and influential. In the end, the relationship between teaching and research and the degree of research orientation will depend on the specific institutional setting and the concrete actor constellations of the individual UTEs.

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<sup>64</sup> Thus, representatives of the national teacher organization have been involved in every project dealing with the reform of teacher education. Often, they were even official members of the working groups and commissions (see for instance the composition of the CDIP commission on the future of teacher education (Müller et al. 1975: 347).

<sup>65</sup> See the reflections on the UTEs' governance structures in section 5.3.3.



Furthermore, with the changing conception of knowledge and its production, the traditional distinction between basic and applied research and the institutional differentiation linked to it has become blurred, resulting in a more pluralistic and varied system of higher education (Bleiklie 2005). The outcome of these changes and the concrete strategy in terms of academic orientation by the entire subsystem of teacher education will of course depend on the actor constellations and the institutional setting within teacher education. Hence, I shall summarize this argumentation by the following hypotheses:

- H1: The more the universities of teacher education define themselves as tertiary institutions, the more they will seek scientific recognition and try to strengthen their research function.
- H2: The more non-academics have access to the political process via legislative and government or professional associations, the less the UTEs will strengthen their research function and exhibit academic drift. The institutional setting in higher education and its federal structure as well as direct democratic procedures enhance lay group access and thus further restrain academic drift.
- H3: The more the system is differentiated and the more UTEs adopt a differentiated position within the higher education system, the more self-selection of personnel and students into the different institutional types will occur.



## 6 Methodology, data collection and data treatment

### 6.1 Rationale for a mixed methods approach

The objective of this study is to analyse the process of the integration of teacher education into the higher education system and to assess the structural developments of the new institutions of teacher education within this system. Based on my research questions, I shall try to identify factors that explain dynamic developments in higher education towards differentiation or convergence, focusing on institutions of teacher education. In particular, the analysis should describe how the integration of teacher education is affected by system-level factors, by institutional factors and actor constellations. A further question is how the UTEs have adapted to the research function and whether the development tends towards further differentiation or convergence within higher education.

These research questions focus as well on (causal) *relations* as on causal *mechanisms*. Consequently, the present analysis pursues different research strategies such as the identification of factors affecting differentiation in higher education, the description of complex social mechanisms<sup>66</sup> and the discussion of why certain factors tend to evoke a specific situation. These different categories of research strategies require different research methodologies. The first type calls for a relation-oriented strategy based on quantitative empirical methods, while the second requires a qualitative empirical strategy focusing on social mechanisms. The latter mechanism-oriented qualitative strategy usually relies on an in-depth analysis of a small number of cases. Such a strategy does not yield precise information about the sector or the field as a whole in which the analysed mechanisms occur, or about the dispersion of the relevant conditions. The scope of qualitative statements is not clearly delimited, nor can they be generalized. On the other hand, the relation-oriented, quantitative strategy helps to identify significant relations between specific factors and a certain outcome based on standardized characteristics, providing definitive and valid (significant) statements within a specified scope, but is rather weak when it comes to identifying complex social mechanisms (Gläser and Laudel 2009: 26f.)<sup>67</sup>.

Whereas the goal of quantitative-empirical methods is the identification of a causal effect, qualitative methods are focused on the causal mechanism of a phenomenon. Thus, qualitative

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<sup>66</sup> Social mechanism is understood as a sequence of causally connected occurrences probable to occur under certain circumstances and leading from specific initial conditions to a specific result (Gläser and Laudel 2009: 26).

<sup>67</sup> "Qualitative Methoden beruhen auf der Interpretation sozialer Sachverhalte, die in einer verbalen Beschreibung dieser Sachverhalte resultiert. Sie standardisieren die Informationen über die sozialen Sachverhalte nicht. Die Komplexität sozialer Sachverhalte wird nicht so sehr bei der Datenerhebung, sondern erst im Prozess der Auswertung schrittweise reduziert." (Gläser and Laudel 2009: 27)

methods are used in order to look deeper and in greater detail into a certain process; they seek to enter the “black box” (Blatter et al. 2007: 133).<sup>68</sup> Both methodological approaches have their strengths and weaknesses that are extensively discussed in methodological debates, but the differences can also be viewed as rather complementary and be applied in a more productive manner. Although the advocates of a strict methodology disapprove of a combination of quantitative and qualitative approaches, concrete research praxis illustrates interesting examples of studies with a fruitful use of a mixed-method approach. Particularly when the different methods are employed in a perspective of complementarity, justifying the different epistemological perspectives, their different approaches can yield a broader, more comprehensive picture of the research objective (Behrens 2003: 227). Blatter (2007) describes three conceptions of a complementary use of quantitative and qualitative methods: first, case studies may complement quantitative methods where they are not possible due to a small number of existing cases; second, quantitative studies may be used to focus the analysis of single cases or to interpret the plausibility of a statistical analysis; and third, with different methodological approaches, different goals are pursued and different research questions are dealt with. (Blatter et al. 2007: 139).

## 6.2 Research strategy

All specifications regarding the concrete research strategy have to be made on account of the research object and the chosen analytical framework. Following a system-theoretical perspective on my research topic and considering the complex structural nature of the research field, I have opted for an actor-centred approach combining actor-perspective with a systemic approach: with this approach, structural outcomes are the result of the interaction of (individual or collective) actors within a given institutional setting; the institutions thus shape the interactions and indirectly (see chapter 4.5). Based on this theoretical approach, an analytical framework has been developed in order to analyse the system-actor dynamics within higher education, taking into consideration the different levels of the system as well as the actor perspective (see chapter 5.3). The framework thus covers cognitive and normative orientations at the subsystem level, institutional settings as well as actor constellations at the national and cantonal level.

The unit of analysis regarding the macro-phenomenon of system integration is the higher education system as a whole. Within this empirical field, dynamics of differentiation and

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<sup>68</sup> „Die Suche nach Kausalmechanismen trägt dazu bei, in die “black box” zwischen abhängigen und unabhängigen Variablen einzudringen und den Wirkmechanismus nicht nur theoretisch-abstrakt (im deduktiv gewonnenen Modell) sondern empirisch-konkret zu benennen.” (Blatter et al. 2007: 133)

convergence shall be identified and the underlying causal mechanisms described in depth. Yet the different perspectives of the actor-centred approach entail different units of analysis according to the level of the system: the system at the macro level; the individual institution at the meso-level; and the individual actor at the micro level.

On account of the broad orientation of my research questions, I argue for pursuing a mixed-method approach, taking advantage of the different strengths of each methodology. There are several reasons for this choice: first, within the research field of interest – the higher education system, and in particular the universities of teacher education – there are not a large number of cases. There are only about a dozen UTEs in Switzerland. For analyses with the UTEs as the unit of analysis, a quantitative approach using statistical analysis is not really possible, thereby justifying a qualitative approach. Second, the description of the higher education system and a preliminary analysis of structural characteristics between different types of HEIs can be done in a first step by using statistical data on key variables such as number of students, categories of academic staff, funding schemes or research intensity and the like. Third, the recruitment of students within the different types of HEIs has to allow for self-selection processes. However, self-selection can only be identified by means of quantitative regression analysis on the basis of micro-level data on potential students.

### **6.3 A comparative approach based on case studies**

Structural processes such as differentiation or convergence will be described on the basis of the institutions of higher education, the universities, the universities of applied sciences (UASs) and the universities of teacher education (UTEs). However, the analysis will not be limited to a policy analysis of the recent reform in higher education. Rather, this study will attempt to describe the integration of teacher education within the higher education system by applying actor-centred differentiation theory. Thus, it will rely on in-depth analysis of processes within teacher education. Since the existing HEIs of teacher education differ significantly in terms of institutional characteristics (cf. SCCRE 2011: 229), it can be assumed that they also differ as to their integration into the higher education system and the way in which they have adapted to the research function. Therefore, I argue for carrying out a comparative case study based on a small number of individual UTEs. In the focus of the present study are the identification of social mechanisms and an in-depth description of the subsystem of teacher education in the context of the Swiss national higher education system. The goal is not an international approach comparing different national higher education systems or policies of teacher education,

but rather an analysis of a single higher education system on the basis of a system-actor framework.

In-depth analyses of policy reforms and effects within a given policy field are traditionally conducted by means of case studies. These analyses are designed as single case studies or multi-case studies; the latter are further differentiated into multi-site studies analysing several policy sectors, and within-site studies (Behrens 2003: 214). In contrast to the experimental or the statistical method, Lijphart (1971) defines the comparative method as “a broad-gauge, general method” for the scientific analysis of a few cases. Due to the problem of a small number of cases,<sup>69</sup> policy analysis research generally applies the method of comparative case studies (Lijphart 1971).<sup>70</sup>

Within the comparative method, the case study method represents an “implicit part” (Lijphart 1971: 683ff.). Although the case study method has great advantages in terms of in-depth investigation and rather little resource investment, its scope is limited and cannot serve for generalization purposes: “A single case can constitute neither the basis for a valid generalization nor the ground for disproving an established generalization” (Lijphart 1971: 691). However, case studies are well suited to describing and interpreting complex social structures and processes, and are usually better at conveying a rich, precise picture of a specific case. Consequently, data collection is not standardized and cannot be applied over a large number of cases. The description relies on rather complex categories and typologies that furthermore can undergo modifications during the research process. (Blatter et al. 2007: 127)

Case studies are commonly defined as a qualitative research methodology – not a specific technique, but rather a research strategy – where the objective of research is explored as a whole, using detailed and extensive data. A case study is “an intensive study of a single unit for the purpose of understanding a larger class of (similar) units” (Gerring 2004: 342). Characteristic of case studies is the fact that the unit of analysis is viewed as a whole and not divided into separate dimensions (c.f. Gerring 2004, 2009; Häder 2006; Yin 2009; Creswell 2013). Creswell (2013) for instance gives the following definition of a case study:

Case study research is a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audio-visual material, and documents and reports), and reports a case description and case themes. The unit of anal-

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<sup>69</sup> The small number of cases at disposal in a given field is a common problem in political analysis, requiring other methods: for “there is little point in pursuing cross unit analysis if the units in question do not exhibit variation on the dimensions of theoretical interest and/or the researcher cannot manage to hold other, potentially confounding, factors constant.” (Gerring 2004: 352).

<sup>70</sup> Lijphart (1971) assigns the case study method to the study of one single case or, in connection with the case study method, to relatively few cases; insofar as “certain types of case studies can [even] be considered implicit parts of the comparative method” (Lijphart 1971: 691).

ysis in the case study might be multiple cases (a multi-site study) or a single case (a within-site study). (Creswell 2013: 97)

Blatter (2007) does not approve of the definitions discriminating between one case and several cases. Instead, he proposes to differentiate on a more general level between variable-oriented and case-oriented designs. Consequently, he argues that from the epistemological and methodological perspectives, there would not be any need to differentiate between a single case study and a comparative study based on multiple cases, as both designs would seek to draw descriptive or causal conclusions (Blatter et al. 2007: 124). Regarding comparative studies, based on a limited number of cases, different factors and processes are compared with the theoretical concept (ibid.)<sup>71</sup>.

In sum, for the present study, I will apply the following short characterization of a case study, given by Blatter and Haverland (2012): “[...] case study research is defined as a non-experimental research approach that differs from large-N studies in the following four characteristics: 1) a small number of cases; 2) a large number of empirical observations per case; 3) a huge diversity of empirical observations for each case; and 4) an intensive reflection on the relationship between concrete empirical observations and abstract theoretical concepts” (Blatter and Haverland 2012: 19).

## 6.4 Case selection

When it comes to the selection of cases, crucial questions as to the degree of variance between the cases or the factors on which the selection should be based on have to be decided. From the perspective of a quantitative approach, the purposeful selection of very specific cases is flawed due to the selection bias (Blatter et al. 2007: 136). From a qualitative point of view, however, it is argued that selection bias is an irrelevant criterion, for the goal of the analysis is not the identification of (causal) generalizable effects (as in quantitative studies) but rather the description of the causal mechanisms within a specific case (ibid):

Die Validität von “causal-process observations” hängt nicht von der Repräsentativität der Beobachtung ab, sondern von der Entdeckung konkreter Mechanismen und Zwischenfaktoren, die abhängige und unabhängige Variablen miteinander verbinden. Allerdings müssen qualitative Forscher vorsichtig sein, diese kausalen Erkenntnisse nicht vorschnell zu verallgemeinern. (Blatter et al. 2007: 136)

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<sup>71</sup> Blatter is quite clear on this point. He argues that in comparable case studies, the analytical reasoning is not based on the covariance of specific variables but rather on the comparison between theoretical assumptions and empirical findings: “Im Gegensatz zu Gerring (2007) vertreten wir die Meinung, dass in Fallstudien auch die kausalanalytischen Schlussfolgerungen weniger über die Feststellung von Kovarianz (d.h. die gleichgerichtete Variant von Variablen über mehrere Fälle oder über die Zeit hinweg) erfolgt, sondern primär über die Feststellung von Kongruenz zwischen theoretischen Erwartungen (in Bezug auf vielfältige Charakteristika von zentralen Variablen und in Bezug auf kausale Prozesse und Mechanismen) und empirischen Informationen.“ (Blatter et al. 2007: 125)

Case studies thus do not claim *external validity* (i.e. generalizability) but rather *internal validity* (i.e. the accurateness of descriptive or causal inferences for the cases examined), as a result of which it is preferable if the cases do not vary much with respect to context variables (Blatter et al. 2007: 137f.). Consequently, case studies are characterized by “purposeful sampling” (Creswell 2013: 100). A classical method of sampling is the “controlled comparison” (Blatter et al. 2007: 142) where cases are selected such as they resemble in most context variables and differ only in one specific factor of interest. The two strategies originating from John Stuart Mills are the *Method of Difference* and the *Method of Agreement*. The first design (called “most similar systems design”) seeks for variance within the dependent variable and keeps context factors constant, the latter (called “most different systems design”) selects cases with similar dependent variables and different context variables (Blatter et al. 2007: 142f.).

However, for my purpose, it will hardly be possible to control all the relevant variables and to realize isolated variation in either the dependent or the independent variables. The few UTEs – although quite heterogeneous – overlap in many characteristics. Rather, the goal is to realize variation as to some key variables that are considered relevant for certain structural outcomes and in particular for the adaption to the research function. These are governance structure (funding and supervising authorities), local supply of higher education, institutional form, organization of R+D, and size. In the following section, I will briefly discuss the relevance of these variables.

*Size:* although the initial concept prescribed a minimal size of 300 students (CDIP 1995: B.6ff.), there are a number of UTEs that do not even achieve this size (SCCRE 2011: 229). However, there are in all five out of the 14 UTEs that do not equal more than some 500 students, which must be considered as very little for an HEI.<sup>72</sup> Small size for an HEI can be assumed to be a hindering factor for the development of effective research praxis appropriate for HEIs. The risk of being caught by an overload of teaching demands is high. Furthermore, it will be difficult to achieve a critical mass within certain research disciplines, and the research-teaching nexus will be difficult to realize. Most of the very small UTEs are located in remote areas and their existence is also justified by linguistic reasons. Therefore, I will not consider them for the sampling. The cases chosen should thus reflect the categories 500-1000, 1000-1500, and larger than 1500 students.

*Governance structure and political authority:* teacher education is traditionally the responsibility of the cantons. There is a long tradition of decentralized, local schools for teacher training (Lehmann et al. 2007; SCCRE 2011); hence each canton adheres strictly to its own

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<sup>72</sup> The size of 500 has been given as a minimum size for universities of applied sciences (UAS) in the conceptualization phase; see (Conseil fédéral 1994).



institution of teacher education. Regional and intercantonal cooperation is only moderately developed. Such intercantonal foundations of UTEs exist in north-western Switzerland, where the four cantons Basel-Stadt, Basel-Landschaft, Aargau and Solothurn established their common UAS also comprising a department of teacher education called PH FHNW. The French-speaking cantons of the Jura region Bern, Neuchâtel and Jura created their own UTE called HEP BEJUNE. The intercantonal UTE in central Switzerland (PHZ) was founded by six cantons and is organized as a rather loose holding at three sites. However, the three cantons hosting one of these sites decided in May 2010 to dissolve their concordat and to have its own UTE.<sup>73</sup> As long as a certain canton has its own UTE, direct access as to study organization, entry qualifications, study programmes offer, specific research and development mandates or further education courses will be much easier than if a canton sees itself within a governing board together with other cantons where it only represents one member. I therefore assume that a UTE with an intercantonal governing board experiences greater autonomy from the political side. Consequently, I should consider at least one UTE with an intercantonal authority.

*Institutional form:* when discussing the institutional profile of the new institutions for teacher education, the institutional form and organizational structure is crucial and represents a relevant variable as to institutional diversity (Birnbaum 1983: 53). Most UTEs are independent HEIs subject to cantonal law; however, there are a few UTEs that are integrated into a university of applied sciences (UAS), with teacher education representing a specific school or department of the UAS. This is the case with the UTE of north-western Switzerland (PH FHNW), the UTE of the canton of Zurich (PHZ) and the UTE in the south (DFA SUPSI), even though all three differ substantially in terms of institutional independence.

*Local supply of higher education:* since the institutions of teacher education are much more decentralized than the regular universities and even the universities of applied sciences, cantons that did not previously have a university can at least have their own UTE now. Consequently, we now find areas where the UTE represents the only institution at the tertiary level, whereas other more central areas offer the full range of types of HEIs, i.e. regular universities, UASs and UTEs. This situation affects the educational choices of students, as we know that distance affects students' propensity for higher education (Frenette 2006, Frenette 2009; Spiess and Wrohlich 2010). Furthermore, the fact that there is no university at the local place impacts the development of the UTE, for there is no opportunity for close collaboration. On the other hand, there is no situation of competition either. As to the sampling of the cases, variance should be provided regarding the local supply of higher education.

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<sup>73</sup> Auflösung des Konkordats über die Pädagogische Hochschule Zentralschweiz (PHZ-Konkordat), Zentralschweizer Regierungskonferenz, 2.12.2011.  
[http://www.zrk.ch/Projekte-Detail.51.0.html?&tx\\_ttnews\[tt\\_news\]=159&cHash=8bacb46964](http://www.zrk.ch/Projekte-Detail.51.0.html?&tx_ttnews[tt_news]=159&cHash=8bacb46964) [12.3.2013].

*Organization of R+D:* finally, the UTEs have opted for different organizational solutions when integrating research and development. The most common strategy chosen at the beginning of the reform of teacher education was to create a research department annex for which specialized academic personnel was recruited. The smaller UTEs are mostly still organized in this manner. Moreover, certain UTEs have opted for close research collaboration with a local university. Larger UTEs have begun to create a more integrated structure of research and teaching. They try to ensure a better interlinkage between research and practice by applying the classical university model of professorships.

In light of the arguments discussed above, I will select the following four UTEs for my study purpose: from the category of the large UTEs, I will chose one with an intercantal governance and one UTE of a single canton, thus the UTE of north-western Switzerland (PH FHNW) and the UTE of the Canton of Zurich (PHZH). Furthermore, a medium-sized UTE will be selected, preferably from another linguistic area. Here, I have chosen the UTE of the canton of Vaud (HEP Vaud), the largest UTE in the French-speaking part of Switzerland. Finally, with the UTE of the canton of Thurgau (PHTG), I have selected a small UTE located in a remote rural region of Switzerland. This selection provides variation as to the described criteria. All of the four UTEs are in search of their own profile as UTE; they are of reasonable size for a HEI; and do not represent an extreme case where their long-term viability is open to question. Thus, the four UTEs selected are all located on the central axis crossing the country from west to east. The table below (see Table 6.1) gives an overview of the four selected cases accounting for the above-mentioned selection criteria.

**Table 6.1: Sampling criteria**

<i>Name</i>	<i>Governance structure</i>	<i>Institutional structure</i>	<i>other local HEIs</i>	<i>Size</i>
PH TG	cantonal	independent UTE	- - -	500-1000
HEP VD	cantonal	independent UTE	University and UAS	1000-1500
PH ZH	cantonal	loosely integrated in UAS	University and UAS	> 1500
PH FHNW	intercantonal	fully integrated in UAS	University (Basel) and UAS	> 1500

## 6.5 Data collection

In a case study design, the unit of analysis is generally kept as a whole and observed within its environment. Data are collected extensively by different methodological techniques, drawing on sources such as documents, observation, interviews, and surveys (Creswell 2013: 100). The

primary purpose of data collection in case studies is to gain a comprehensive, detailed and rich view of the unit explored. Consequently, the specification is high and the standardization of the methods used is rather low (Häder 2006: 349).

### *Expert interviews*

In the present study, data collection for the qualitative study primarily draws on expert interviews (Gläser and Laudel 2009) with key actors in the higher education system. The term 'expert' is used because of the specific role of the interviewed persons as someone with special knowledge and expertise of a particular field, organization, or process. Consequently, they do not act as an object of study but as a witness of an actual situation, a concrete process of interest (Gläser and Laudel 2009: 12).

In the international literature on qualitative research methods, expert interviews tend to be referred to as elite interviews (Denzin and Lincoln 2000). Differences between expert and elite interview are seen in the different research traditions of social and political sciences (Littig 2009). Experts are often described as elites, that is to say, high-ranking executives in politics, administration or industry disposing of special knowledge and information due to their professional function. Even though they are not identical, the definition of elites and experts overlap here (Littig 2009: 118).

Expert interviews are conducted with the goal of a systematic and complete exploitation of information. Experts have the function and role of a special information source (Gläser and Laudel 2009: 12f.). Who exactly will serve as an expert in an interview, depends on the interest of the researcher. Experts are informants with privileged access to information. In a more narrow sense, experts are seen as executives within their professional environment and disposing of certain enforcement capacities. In this sense, the expert's knowledge is also relevant for other actors and has a structuring effect on the actor constellation:

Der Experte verfügt über technisches, Prozess- und Deutungswissen, das sich auf sein spezifisches professionelles oder berufliches Handlungsfeld bezieht. [...] Das Wissen des Experten, seine Handlungsorientierungen, Relevanzen usw. weisen zudem – und das ist entscheidend – die Chance auf, in der Praxis in einem bestimmten organisationalen Funktionskontext hegemonial zu werden, d.h., der Experte besitzt die Möglichkeit zur (zumindest partiellen) Durchsetzung seiner Orientierungen. Indem das Wissen des Experten praxiswirksam wird, strukturiert es die Handlungsbedingungen anderer Akteure in seinem Aktionsfeld in relevanter Weise mit. (Bogner and Menz 2005: 46)

From an epistemological perspective, expert interviews can be characterized as reconstructing methods; thus studies aiming to reconstruct a specific social situation or a process (Gläser and Laudel 2009: 13). For this purpose, experts are interviewed on the basis of a non-standardized

guideline, a field manual.<sup>74</sup> Most of the experts interviewed for this study hold executive positions in a specific organizational unit and within an institutional context. In this function, their explanations and statements are considered as relevant for the specific policy and strategic decisions of the institution they represent to some extent.

In order to assess specific views about the function and role of the UTEs and about the structure of the higher education system and the perceived position, representatives of collective actors within and outside teacher education have been interviewed. Accordingly, key persons at the UTEs were identified as persons occupying positions such as rector or director of the school, head of department and research officer. These actors were contacted with the goal of identifying the UTE's strategy regarding higher education policy. For, in contrast to the universities, the management of the UTEs are more powerful and are able to set the strategic direction. Furthermore, individual researchers or professors without managerial functions were interviewed in order to explore in greater depth how organizational decisions are dealt with in the organizational context, how research is integrated and whether there are divergent views as to the UTE's identity, role and position.

Besides the actors from the UTEs, actors from other institutional types – directors, professors and researchers from universities and UASs – were interviewed. Furthermore, policy-makers and senior officials dealing with higher education policy from cantonal education ministries as well as from the Swiss Conference of Ministers of Education (EDK) were addressed. Finally, executives and officials from sector organizations (CRUS, KFH and CO-HEP), professional organizations and teacher unions were interviewed.<sup>75</sup> The persons interviewed were asked about their perception and understanding of the UTE's role and mission and about their position in the higher education system. Furthermore, institutional aspects as to the organization of research and the relationship between teaching and research were discussed with the interviewees. Another important issue that was investigated by means of the expert interviews is the relationship between UTEs and universities, their collaboration as well as the question of the doctorates (cf. the field manual in the annex).

### ***Data processing and analysis***

The expert interviews were conducted between February 2011 and March 2013 in face-to-face situations with single interview partners. The interviews were structured according to a pre-constructed guide defining the central issues to be dealt with. The full conversations were

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<sup>74</sup> The interview manual (guideline) is given in the appendix.

<sup>75</sup> A list of the persons interviewed is given in the appendix.

recorded and transcribed. The retrieved texts were then processed and analysed by means of content analysis (Mayring 2002: 114ff.; Gläser and Laudel 2009; Mayring 2010) using the qualitative data analysis software MAXQDA<sup>76</sup>.

The main principal of qualitative content analysis is a systematic procedure to retrieve information from texts such as a transcribed interview. Contrary to quantitative techniques of content analysis, qualitative content analysis does not quantify the information in terms of frequencies of categories. Rather, the texts are scanned by means of pre-established search criteria or codes. This categorical framework was derived from the theoretical approach and developed based on the text material (Mayring 2002: 114).

Data were extracted and coded according to a specific code system covering the central issues of interest {Saldaña 2009 #711}. For each code, sub-codes were developed based on the different research questions (see table in the annex). By means of the data analysis software the transcribed interviews were scanned and relevant information coded according to the categorical framework. In subsequent procedures, the retrieved information was reduced and interpreted. For this, multiple output options were used such as for instance the compiling of specific codes by actor groups. However, certain quotations were used in full and cited in order to better illustrate a specific way of argumentation and reasoning. The entire quotation also helps to better situate certain issues in the concrete context of the oral interview.

The interviews were conducted in the local languages, i.e. French, German, or sometimes in Swiss German dialect as well. However, as I have used a great variety of sources in different languages, I decided to quote the experts' answers in the original language without translation into English. The English language on the other hand, serves as the language of the scientific text dealing with the diverse sources and thereby indirectly taking a step backward, assuming a slightly more distant view onto the object.

In any event, it would have been impossible to achieve strict correspondence between the language of the object and the language of the scientific text simply because of the multilingual nature of my field of study. Furthermore such a concordance is questionable, as for example the Dean of Humanities at Utrecht University argues: "The language of the object of research has nothing to do with the language in which we scholarly communicate about it. The only reason for the relation between the language of the object and the language skills of the scholar is the mastering of the skills to read the relevant documents" (van den Akker 2012: 175).

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<sup>76</sup> MAXQDA 10, released 2012

## 6.6 A multilevel approach

The transformation process in teacher education – and thus our question of differentiation or convergence – is to be described as a complex process that takes place at all levels of the system, involving subsystem-specific general orientations, institutional settings and actor constellations. On the level of subsystem-specific cognitive orientations, the questions are how the organizational coexistence of the education and the research system takes place; how the education function of teacher education and the general orientation towards the education system have been affected by the upgrading of teacher education to the tertiary level; and how the introduction of a new research function is justified. On the level of the institutional settings, the analysis has to focus on the question of to what extent institutional rules and norms have shifted from the educational system towards the scientific system. Do the institutional settings of the universities of teacher education favour one subsystem over another? Finally, on the level of the actor constellations, the analysis has to focus on the constellations, on the relations between the actors of the system. Are the actors of one subsystem gaining influence over those of another system? As to the subsystem of teacher education, our question is whether academia, i.e. researchers and university professors, begins to influence other actors, for instance those assigned primarily with to teaching? Or do the actors of the political system increasingly influence the actors of teacher education? And in what way do the public and the students, the clients of the system affect the development of the UTE? The analysis is thus structured along these three system levels.

On the system level of federal and cantonal policy, processes in the field of higher education are identified that are to be analysed by means of classical policy analysis. The policy analysis focusing on the system level will be based on document analysis of policy statements, laws and regulations as well as on further written sources. The actor perspective will be approached by the analysis of expert interviews with key actors and representatives of collective actors. The collected data shall then be used to describe the system-specific orientations and institutional setting as well as to identify actors' strategies and action patterns. Furthermore, available statistical data will be used for the general description of the higher education system as well as to characterize the different types of HEIs.

The meso level of the analysis will be approached by a case study comparing four individual universities of teacher education (UTEs). The description of the subsystem of teacher education will be complemented by this analysis of different UTEs, describing institutional and organizational characteristics, the organizational strategy as HEIs that must find their position within the national as well as the local higher education system. Individual institutions' strate-

gies will be identified on the basis of documents such as schools' annual reports, research reports, and the like that will be complemented by expert interviews with the responsible key actors (directors, research responsible, teaching responsible).

Finally, the micro level of the individual student is to be considered. With students' educational choices, the aggregate of the individual student affects the whole system. Processes of self-selection by individual students have decisive effects on systems of higher education in terms of composition of the student body, access and social equity, and institutional profile and reputation (cf. Luhmann and Mayntz 1973; Birnbaum 1983; Boudon 1984; Becker 1993). Furthermore, determinants affecting educational choices with regard to different types of HEIs in the whole system can reveal reputational aspects and informal hierarchies. In order to study these processes and to analyse self-selection into the different types of HEI, I have to rely on a quantitative approach<sup>77</sup> analysing a representative sample of potential students. For this purpose, I will use a representative sample of baccalaureate school graduates from a number of Swiss cantons. Study choice respectively the choice of a specific type of HEI will thus represent the dependent variable that will be estimated by means of multivariate regression analysis controlling for different context variables.

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<sup>77</sup> For micro-level analyses, Lijphart also considers quantitative approaches: „[...] if the proposition in question focuses on individuals as units of analysis, one can also use the statistical method [...]” (Lijphart 1971: 685)





## **PART III**

# **EMPIRICAL ANALYSIS**



## 7 The Swiss higher education system - structure, governance and funding

In the following chapter, an overview of the Swiss higher education system will be given describing the structure, institutional setting, and funding and governance schemes. The three sectors of HEIs – the conventional universities, the universities of applied sciences (UAS) as well as the newly created universities of teacher education (UTEs) – will be described in subsequent paragraphs. On the basis of the regulatory setting, general differences between the different types of HEI sectors will appear. Special attention will be given to the sector reforms, the conceptualization and introduction of a non-university sector as part of the higher education system. The subsequent chapters will focus on the reforms of the higher education system, the introduction of the non-university sector, and in particular the reform of teacher education with the creation of universities of teacher education (UTEs).

### 7.1 General structure of the higher education system

Broadly speaking, the Swiss higher education system is characterized by a relatively stable university sector with a long tradition and a rather new, dynamic and growing college sector, i.e. anon-university sector. Higher education is organized along two broad lines in Switzerland: the federal structure of the state, and the distinction between general and vocational education, which is constitutive for the entire education system (Lepori and Kyvik 2010: 217). The system is commonly described as binary, thus comprising on the one hand the cantonal universities, the two Federal institutes of technology (ETH) and some further university institutions, and on the other hand, seven public universities of applied sciences (UAS), one private UAS, and 14 universities of teacher education (UTE). The binary system is divided along the common contrast between *general education* and *academic, basic research* vs. *vocational education* and *applied, practical research*.

Furthermore, cooperative federalism (Scharpf 1995; Kropp 2010) is a constitutive aspect of the higher education system in Switzerland. The Confederation and the cantons are both responsible for higher education.<sup>78</sup> The federal structure and a heterogeneous, historically grown institutional situation explain the complex governance of the higher education system. As a consequence, higher education is governed by numerous actors and bodies at different

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<sup>78</sup> Cf. Art. 3, 44, 63a Abs 3 BV. The federal state and the cantons are obliged by the Constitution to cooperate in higher education. But this does not mean that higher education policy is a joint task in Switzerland. Rather, the cantons are autonomous to the extent that the Constitution has not limited their scope and transferred competencies to the federal state (Schmidt 2008: 119).

levels of the policy system, with responsibilities and prerogatives shared between them (Perellon 2001, Perellon 2003: 358).

The Confederation has the regulatory competence for the Federal Institutes of Technology (ETH) and similarly for the universities of applied sciences. On the other hand, the cantons are responsible for regulating the universities and the universities of teacher education. As a result, these cantonal HEIs are regulated by cantonal law. Furthermore, the Confederation is responsible for the funding of research.<sup>79</sup> Besides the relevant articles of the Federal Constitution, the HEIs are regulated by federal acts,<sup>80</sup> by the cantonal acts on the individual universities in the cantons and the universities of teacher education, as well as by intercantonal agreements<sup>81</sup> (Schmidt 2008: 120). The federal structure in higher education with the division of competencies between Confederation and cantons results in a highly complex institutional and organizational structure. As a consequence, governance within the system is realised by a complex network of federal, cantonal and intercantonal bodies and agencies (Perellon 2001; Schmidt 2008: 121).

Governance at the federal level has long been shared between the Federal Department of Economic Affairs (EVD), responsible for vocational education and the universities of applied sciences, and the Swiss Department of Internal Affairs (EDI), in charge of research policy and funding. Since 2013, all federal responsibilities for education have been combined in one agency at the Federal Department of Economic Affairs, Education and Research (EAER): the State Secretariat for Education, Research and Innovation (SERI). On the side of the cantons, the Swiss Conference of Cantonal Ministers of Education (EDK) assumes intercantonal responsibilities and acts as an interlocutor vis-à-vis the federal instances, while the EDK acts on behalf of the 26 cantonal governments.

Horizontal coordination in higher education is handled by specific sector organizations: the cantonal governments with universities on their territory come together within the Swiss University Conference (SUC)<sup>82</sup> to coordinate their higher education policy. Their partner entrusted with the coordination and supervision of academic affairs of the universities is the Rectors' Conference of the Swiss Universities (CRUS).<sup>83</sup> The respective bodies for the universities of applied sciences are the Swiss Council of the UASs, where the seven UAS regions are

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<sup>79</sup> Art. 64 Abs. 1 and 3 BV

<sup>80</sup> See for instance: Bundesgesetz über die Eidgenössisch Technischen Hochschulen (ETH-Gesetz) vom 4.10.1901, Fassung vom 13.6.2006 (SR 414.110); Bundesgesetz über die Fachhochschulen (Fachhochschulgesetz, FHS) vom 6.10.1995, Fassung vom 13.6.2006 (SR 414.71).

<sup>81</sup> See for instance „Interkantonale Fachhochschulvereinbarung (FHV) vom 12.6.2003“, <http://edudoc.ch/record/2011/files/3-3d.pdf> [accessed 25.2.2013].

<sup>82</sup> See: <http://www.cus.ch/wEnglisch/portrait/index.php> [accessed: 26.2.2013].

<sup>83</sup> See: <http://www.crus.ch/die-crus/organization.html?L=2> [accessed: 26.2.2013].

represented by the respective cantonal ministers of education. The UAS Council (FH-Rat EDK) acts as the political body for intercantonal cooperation for the UASs but also with regard to the universities of teacher education.<sup>84</sup> Its partners at the operational level of the UAS and the UTEs are the Rectors' Conference of the Swiss Universities of Applied Sciences (KFH)<sup>85</sup> and the Swiss Conference of Rectors of Universities of Teacher Education (COHEP).<sup>86</sup>

## 7.2 Funding

The two Federal Institutes of Technology (ETH) are entirely financed by the Confederation. The cantonal universities are run and supervised by the cantonal governments, which with a share of 52% bear the main burden of the costs (see Figure 7.1). The federal contribution amounts to 28% and represents federal subsidies as well as third party funds by the Swiss National Science Foundation (SNSF). The federal funding of the cantonal universities is based on the Federal Act on Financial Assistance to Cantonal Universities (UFG),<sup>87</sup> a regulation which dated back to the 1960s but was substantially revised in 1999. Perellon (2001) argues that the revision of the UFG and the adoption of the Concordat by the university cantons<sup>88</sup> and the Convention of Co-operation between the Confederation and the university cantons<sup>89</sup> led to a significant change in governance in the higher education system, modifying in particular the relationship between the Confederation and the cantons. In the course of the revision of the UFG, the governance of higher education was affected in three main areas: first, the transformation of existing bodies and agencies; second, the introduction of new patterns of funding; and third, the creation of a new agency for quality assurance and accreditation (Perellon 2001: 216). The Confederation was given a greater say regarding higher education policy as far as the governance of the cantonal universities is concerned: "Federal authorities have managed to gain influence over the definition of the general conditions within which higher education policy has to be developed in Switzerland", thereby shifting from a "mere payer" to a "proactive actor" by introducing for instance output-oriented parameters to achieve the federal objectives of coordination (Perellon 2001: 222).

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<sup>84</sup> See: <http://www.edk.ch/dyn/14623.php> [accessed: 26.2.2013].

<sup>85</sup> See: <http://www.kfh.ch/index.cfm?&lang=e> [accessed: 26.2.2013].

<sup>86</sup> See: <http://www.cohep.ch/en/> [accessed: 26.2.2013].

<sup>87</sup> Bundesgesetz über die Förderung der Universitäten und über die Zusammenarbeit im Hochschulbereich (Universitätsförderungsgesetz, UFG) vom 8.10.1999, Fassung vom 204.2004 (SR 414.20).

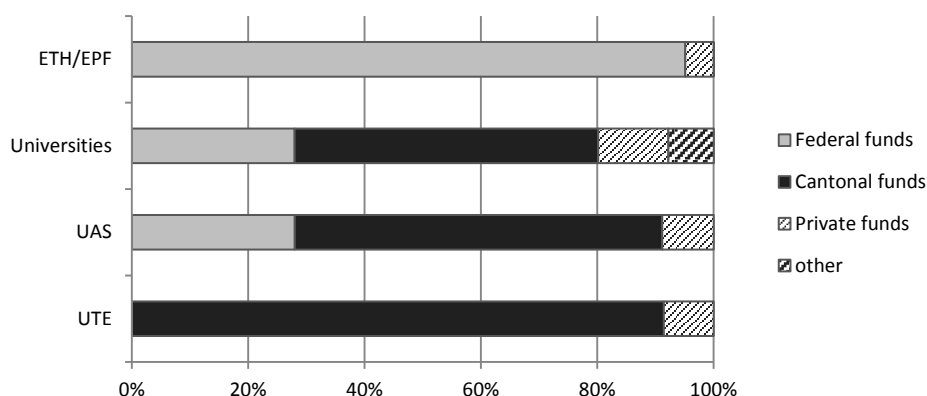
<sup>88</sup> Interkantoniales Konkordat über universitäre Koordination vom 9. Dezember 1999, <http://www.cus.ch/wDeutsch/portrait/rechtliches/konkordat.php> [accessed: 26.2.2013].

<sup>89</sup> Vereinbarung vom 14. Dezember 2000 zwischen dem Bund und den Universitätskantonen über die Zusammenarbeit im universitären Hochschulbereich vom 14.12.2000 (SR 414.205).

The universities of applied sciences are owned and run by the cantons but supervised by the Confederation; the accreditation of the UAS study programmes and quality control is assured by the Confederation. This federal governance explains the large share of some 30% in the funding of the UASs. Federal funding is awarded on a per-student basis and takes into account performance measures, such as the acquisition of third-party funding. The funding balance of about two-thirds is provided by the cantons, i.e. by the owner cantons of the UASs as well as by per-student contributions by the home cantons of non-resident students. The universities of teacher education on the other hand are exclusively regulated and funded by the cantons. Similarly to the UAS funding, this funding is shared between the owner cantons and the home cantons of non-resident students. These contributions on a per-student basis are established in an intercantonal agreement (SCCRE 2011: 175).

In 2008, the total cost of higher education came to CHF 8.7 billion; three-fourths were allotted to the universities, about one-fifth to the UASs and a small remainder to the UTEs (FSO). The different sources of funding in higher education are shown in the figure below:

**Figure 7.1: Funding shares by type of HEI (2011)**



Data: FSO

The new Federal Act on Funding and Coordination in Higher Education (LAHE)<sup>90</sup> will for the first time introduce a common law regulating all types of HEIs as to coordination, funding and accreditation. To this end, the Confederation and the cantons will create new common bodies: a Swiss higher education council, bringing together all owners of HEIs, a conference of the rectors of HEIs, and an agency for accreditation with its own accreditation board. However, the federal legislation needs to be supplemented on the cantonal side by a concordat determining the deputizing in the Swiss higher education council and authorizing the cantonal deputies of

<sup>90</sup> Loi fédérale sur l'encouragement des hautes écoles et la coordination dans le domaine suisse des hautes écoles (Loi sur l'encouragement et la coordination des hautes écoles, LEHE) du 30 septembre 2011, FF 2007-0429, 6863.

the council to act on behalf of the cantons.<sup>91</sup> Based on the new regulations in higher education, the Confederation will provide funds to the universities and the UASs in the form of basic contributions, building investments and project-specific contributions. For the cantonal universities, this will account for some 20%, and around 30% for the UASs. The UTEs do not receive basic contributions from the Confederation.

### 7.3 The university sector

The university sector consists of 10 cantonal universities, seven fully-fledged (Basel, Berne, Fribourg, Geneva, Lausanne, Neuchâtel and Zurich) and three smaller ones (Lucerne, St. Gallen and Ticino) which are not *universitas litterarum* in the strict sense, i.e. they do not offer the full range of university faculties and instead focus on a few specialized areas, and some specialized university institutions. The universities are run and owned by the cantons, each of which has its own university legislation and policy (Perellon 2001). Internally, they are usually organized along similar lines. Executive power is vested with the rector and the deans of the faculties; legislative power falls to the senate or a similar body; while supervisory authority is exercised by the university council or a similar body, usually elected by the cantonal parliaments. In addition, there are the two Federal Institutes of Technology (ETH) and the four attached research institutes. These federal universities are run and owned by the federal government. The executive powers of the ETH lie in the hands of the rectors, while strategic authority rests with the board of the ETH. Finally, they are supervised by the federal government (Perellon 2001).

Although subject to different legislation, cantonal universities and the ETH share a number of characteristics such as their academic university status, their research orientation and ambition for excellence and international reputation. Most of them rank among the world's leading universities in terms of access criteria, student body and teaching personnel (Weber et al. 2010a: 92; SCCRE 2011: 197). Students at either cantonal universities or the ETH usually have a general baccalaureate, whereas students at the universities of applied sciences have a professional baccalaureate. As a result, in terms of the distinction between general and vocational education, the system divide is between the university sector and the college sector.

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<sup>91</sup> See: <http://www.edk.ch/dyn/11662.php> [27.2.2013].

## 7.4 Conceptualizing a non-university sector in higher education

The Swiss system of higher education was long characterized by a relatively low ratio of persons pursuing a tertiary education. In the 1980s, the ratio of students graduating from high-school<sup>92</sup> with a general baccalaureate<sup>93</sup> was a scant 10 per cent or so. By 2002, this quota had nearly doubled, with the greatest increase in the 1990s (SCCRE 2011: 123). Yet the reason for the low quota of academically educated persons also lies in the fact that Switzerland has a well-established VET system at the upper secondary level with a high proportion of students training in apprenticeships. Higher education for those who had completed vocational training did not form part of the higher education system in a narrow sense. Thus, technicians for instance were trained at technical schools after having completed an apprenticeship, or primary school teachers were trained at normal schools on the upper secondary level. All these post-secondary study courses did not require a general baccalaureate, but they did not belong to the tertiary level either.

Switzerland had a well-developed post-secondary education sector outside universities; a heterogeneous sector of study programmes and courses comprising numerous occupationally oriented programmes (engineering, trading, nursing, teacher training etc.) and their specializations. The field was further characterized by diverse organizational forms, institutional settings, funding regimes, admission requirements, curricula and staff. The main rationale for these post-secondary institutions was the orientation to the vocational sector and to the labour market with the demand of a qualified workforce; there was no general concept for the whole sector but a complex, rather pragmatic coexistence of different institutional structures (Arnet 1997; Pätzmann 2005). The most important distinctive criterion of these post-secondary institutions was the respective occupational sector for which they provided training. The different institutions all had their specific and historically grown ties with their occupational groups. This explains the different traditions of education and training in the post-secondary non-university institutions.

At the beginning of the 1990s, policy-makers began to discuss how to extend higher education, for most European countries had considerably expanded their higher education systems by that time. Consequently, the creation of a second tier sector comprising non-university post-secondary education was a common model. Thus, the OECD recommended in its review of Swiss education policy the creation of a college sector in order to differentiate the system and expand access to broader groups of students (OECD 1991).

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<sup>92</sup> General upper secondary schools (Gymnasium or Maturitätsschule; gymnase or école de maturité)

<sup>93</sup> Graduation and school leaving examination (gymnasiale Maturität; maturité gymnasiale)



Further arguments in favour of tertiarization were given by referring to the need to open the vocational educational path up to higher education and to increase mobility within the education system:

Deux causes ont généré le débat sur le développement de la formation professionnelle tertiaire. D'une part, il s'agissait pour la Suisse d'entreprendre l'adaptation, réclamée depuis longtemps, de ses systèmes de formation aux standards internationaux, ou pour le moins européens, comme par exemple celle de la définition des diplômes délivrés. D'autre part, il convenait d'ouvrir vers le haut, vers des filières supérieures, une formation professionnelle considérée souvent comme une voie sans issue, comme aussi d'augmenter la perméabilité entre les systèmes scolaires de formation générale et ceux de formation professionnelle. (CDIP 1993b: 37)

In the following section, I shall briefly summarize the creation of the universities of applied sciences.

## **7.5 Creation of universities of applied sciences (UAS) – the transition to a binary system**

Switzerland transformed its higher education system comparably late under external pressure to adapt (Weber 1998; Pätzmann 2005). The discussion was first launched among the technical schools<sup>94</sup> requesting the upgrading of their status in the educational system. The Conference of cantonal ministers of education (EDK) then took up the idea and proposed to transpose the post-secondary colleges into polytechnics at the tertiary level (hautes écoles spécialisées/Fachhochschulen) designed on the basis of foreign examples, in particular Germany (Pätzmann 2005: 36).

With a report publicly announced and directly addressed to the federal government, the technical schools attracted public interest and fuelled the discussion on the future education of technicians. Their central message was that the technical schools in Switzerland (in particular the HTL) were positioned below their actual value and that as a result, international recognition was inadequate (Weber et al. 2010a: 37ff.). The claim of the technical schools was to upgrade them to institutions of an equal position with the traditional universities. For the first time – and this was unique in Swiss higher education policy, as Weber et al. (2010a) understand – an actor from the educational system (in this case, representatives of the vocational sector) claimed to be positioned within the higher education system (Weber et al. 2010a: 38). Together with this claim, the technical schools advocated the broadening of their mission, – also involving research and development – as well as higher entry criteria. The proposed

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<sup>94</sup> I.e. post-secondary vocational colleges: écoles techniques supérieures (écoles d'ingénieurs ETS)/Höhere Technische Lehranstalten (HTL) and écoles supérieures de cadres pour l'économie et l'administration (ESCEA)/Höhere Wirtschafts- und Verwaltungsschulen (HWV)

reform of higher vocational education was also viewed as a precondition for international recognition by the European Community (Batori et al. 2002: 22ff.; Pätzmann 2005; Weber et al. 2010a). Later, the Conference of Cantonal Ministers of Education (EDK) proposed in a 1993 to create universities of applied sciences by upgrading of the existing technical schools (HTL) (CDIP 1993a). This implied a redefinition of the missions of these technical schools at the post-secondary level (Perellon 2003: 360).

The reform project was finally implemented rather rapidly, as there were no major impediments or resistances to overcome. Weber (1998) explains this by an “exceptionally favourable reform constellation” (Weber 1998: 192). Internally, practically all actors could benefit from the reform; in particular, the technical schools recorded a substantial gain in status. In other words, the creation of polytechnics lay in most actors’ interests. Furthermore, the international structures of the higher education sector were pressing to adapt towards a concept which was compatible with Europe.

In its dispatch on behalf of Parliament, the government put forth the following arguments to create universities of applied sciences (Conseil fédéral 1994: 3):

- Extension of the higher education supply in Switzerland in order to assure a practically and scientifically trained workforce for middle and higher positions;
- Revision and settlement of the higher education system with regard to the mission of the different sectors;
- Upgrading and revaluation of non-university studies at national and international level; assuring European recognition of diplomas;
- Creation of attractive opportunities for continuous training of professionals;
- Revaluation of the vocational education track in Switzerland;
- Extension of the mission: commitment in applied research and development;
- Better collaboration with the business sector.

In 1995, the former technical schools (HTL) were finally merged into polytechnics, officially named universities of applied sciences (UASs). Later, the schools of commerce (HWV) were also integrated into the UASs. Originally, the new UASs were conceived as being on a par with the traditional universities. In the governmental dispatch, they were described as being higher education institutions “of equal level, but of different nature”<sup>95</sup> compared to the traditional universities. The two types of higher education institutions are described as being different as to their mission and study programmes, but there should not be any hierarchical

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<sup>95</sup> « ... les hautes écoles universitaires et les hautes écoles spécialisées doivent être considérées, au sein de notre système éducatif, comme des écoles *de niveau équivalent, mais de nature différente*. » (in German: „gleichwertig, aber andersartig“ (Conseil fédéral 1994: 11).

difference: “Les deux catégories de hautes écoles sont complémentaires; elles sont clairement distinctes du point de vue de leur mission éducative, mais non d’un point de vue hiérarchique” (Conseil fédéral 1994: 11).

However, in the final wording of the law, the delineation of the UASs from the universities is clearly stated, whereas the equal position, as it was claimed in the government’s dispatch, is not found any more (see Pätzmann 2005: 46). Finally, the result of the reform did not go as far as was originally proposed. There was no complete reorganization of the higher education system and a revision of the mission of the different sectors with their study programmes. Also, the two sectors – UASs and universities – remained under their respective federal authorities, mandated by either the Federal Department of Economic Affairs (EVD) or the Federal Department of Home Affairs (EDI). Consequently, the new types of higher education institutions, the universities of applied sciences, were mainly defined with regard to their differences in mission (vocational oriented studies), in access requirements (professional baccalaureate) or in the degrees they grant (BA), thereby emphasizing their different position in terms of degree hierarchy. The famous slogan “equal but different” turned out to be more prescriptive than effective. The hierarchy is built according to the level of degrees conferred by the institutions with the consequence of the distinction between doctoral-granting HEIs and others.

In the first decade of the new millennium, several policy reports dealt with the question of restructuring higher education, for the tertiary sector had considerably changed with the introduction of the UASs. The findings of the 2001 OECD review on tertiary education were published in 2003. The team of experts, consisting of Ulrich Teichler, Elsa Hackl, Michel Hoffert, and Alan Wagner, recommended in particular enhancing permeability between the sectors and providing diverse access routes, implementing the Bologna degree structure at universities as well as at the UASs, and in particular upgrading and integrating teacher education and health education in the UASs. The experts expected synergies within the UASs from broadening the range of fields of study (OECD 2003: 214). In a paper commissioned by the federal government, the members of an expert group identified a need for further structuring and consolidation among HEIs, in particular with regard to programmatic diversity. They recommended developing the division of tasks among the sectors and strengthening their profiles (Projektgruppe Hochschullandschaft 2004).

After the initial phase of the UASs (1997-2003), the Federal Act on the UASs (FHSG) already had to be revised due to the changed situation: first, with the amendment of the Federal Constitution in 1999, further competencies in the field of education were transferred to the Confederation, thus the scope of the federal competencies in vocational education were ex-

tended to health care, social work and the fine arts.<sup>96</sup> Subsequently, parliamentary proposals called for the same thematic extension on the tertiary level. This meant an extension of study programmes at the UASs to health, social work and the fine arts. Second, with the introduction of the two cycle model Bachelor-Master according to the Bologna Declaration,<sup>97</sup> regulation of the UASs needed to be adapted with regard to the study structure.<sup>98</sup> Although some actors also called for the integration of teacher education into the UAS regulation, the federal government did not even suggest this as an option in the governmental dispatch,<sup>99</sup> considering that the opposition of the cantons was too strong. Teacher education has always been and was to be kept under cantonal responsibility. Furthermore, for teacher education, there was no correspondence to the vocational education sector, as was the case for instance with health care or social work.

The scope of the new UAS regulation was finally extended to health care, social work, the fine arts and other performing arts, applied psychology and applied linguistics. As a consequence, the UASs evolved into comprehensive universities of applied sciences offering henceforth a broad range of study programmes, ranging from engineering, sciences and economics to social sciences, humanities and the fine arts. Teacher education followed a separate developmental path.

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<sup>96</sup> See the new Federal Act on Vocational Education: Bundesgesetz über die Berufsbildung (Berufsbildungsgesetz, BBG) vom 13. Dezember 2002 (SR 412.10).

<sup>97</sup> The UAS-Council (FHR EDK) adopted guidelines for the implementation of the Bologna-declaration and the introduction of Bachelor and Master at UAS and UTEs on December 5 2002 ([http://edudoc.ch/record/38199/files/RichtlBologna\\_d.pdf](http://edudoc.ch/record/38199/files/RichtlBologna_d.pdf), accessed: 27.2.2013).

<sup>98</sup> Schweizerischer Bundesrat: Botschaft zur Änderung des Fachhochschulgesetzes vom 5. Dezember 2003 (BB1 2003, 2515).

<sup>99</sup> „Die pädagogischen Hochschulen sind von der Integration ausgenommen und bleiben in kantonaler Zuständigkeit“ Schweizerischer Bundesrat: Botschaft zur Änderung des Fachhochschulgesetzes vom 5. Dezember 2003 (BB1 2003, 2515: 151 /textcit).

## 8 Reforming teacher education

### 8.1 Introduction

The origins of the reforms of teacher education in the late 1990s that led to tertiarization and the founding of the universities of teacher education (UTEs) reach far back. Since the 1970s, the Swiss Conference of Cantonal Ministers of Education (EDK) had been entitled to encourage a certain harmonization in teacher education across the cantons and to promote carefully the mutual recognition of teacher diplomas earned in comparable training programmes. Then a first report on the future of teacher education, commissioned by the EDK (cf. Müller et al. 1975), propagated the enhancement of a scientific foundation of teacher education and better integration of theory and practice as well as the positioning of teacher education at the tertiary level, requiring the general baccalaureate as an entry qualification (cf. Ambühl 2010: 14).

The triggering factors were identified in external developments, such as the founding of universities of applied sciences (UASs), the enhancement of occupational mobility at European level,<sup>100</sup> initiating the mutual recognition of diplomas at the national level between cantons, and finally the revision of the baccalaureate regulations<sup>101</sup> (Ambühl 2010: 15). The situation at the beginning of the 1990s was described as a “structural backlog of reforms since the 1970s” (Criblez 2010: 26). Whereas in many European countries, in particular in France or in Germany, teacher education was reformed and brought to the tertiary level and integrated into universities, many Swiss cantons adhered to the traditional conception of teacher training schools.<sup>102</sup> Teacher education did not form part of the higher education system. Teachers were either trained at the upper secondary level, in schools equivalent to the general high schools (baccalaureate schools), or at institutions belonging to the tertiary-level B sector. As a result, teacher education suffered a severe loss of prestige<sup>103</sup> in the course of the expansion of secondary and higher education (Criblez 2010: 27f.).

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<sup>100</sup> „Dans le domaine de la formation des maîtres, c'est la première cause qui a été la plus sensible, à savoir la reconnaissance des diplômes d'enseignement au niveau international. Tous les pays d'Europe, à de rares exceptions près, forment dans des Hautes Ecoles les maîtresses et les maîtres de tous les degrés. Et comme dans d'autres branches professionnelles [...] cela conduit à une possible discrimination de nos diplômés sur le marché du travail. C'est la raison pour laquelle une adaptation de la formation suisse aux standards internationaux, ne serait-elle que formelle, paraît opportune“ (CDIP 1993b: 37).

<sup>101</sup> Verordnung des Bundesrates/Reglement der EDK über die Anerkennung von gymnasialen Maturitätsausweisen (MAR) vom 16. Januar/15. Februar 1995, [http://edudoc.ch/record/38112/files/VO\\_MAR\\_d.pdf](http://edudoc.ch/record/38112/files/VO_MAR_d.pdf) [27.2.2013].

<sup>102</sup> I.e. teacher training seminaries or normal schools at the upper secondary level

<sup>103</sup> „Zugespitzt formuliert: Gehörte der Lehrberuf Mitte des 20. Jahrhunderts nach einem Universitätsstudium, das rund 2–3% eines Schülerjahrganges absolvierten, noch zu den attraktivsten Berufen [...], verlor er bis Ende des 20. Jahrhunderts diese sehr gute Position einerseits durch die Expansion der Gymnasien und Universitäten und andererseits durch die Etablierung vieler anderer Ausbildungsgänge im tertiären Bildungsbereich als so genannte Höhere Fachschulen“ (Criblez 2010: 28).

## 8.2 Shift towards intercantonal governance in teacher education

The new dynamic in the college sector, the creation of the universities of applied sciences, and the reform of the baccalaureate (maturité/Maturität) with the creation of a general and a professional baccalaureate in the early nineties raised fundamental questions about the future of teacher education. For, if the vocational sector was about to be upgraded by means of a specific baccalaureate and a new type of HEI, the way teachers are trained would have to be revised.<sup>104</sup> The issue consequently affected the debates at the Swiss Conference of Cantonal Education Ministers (EDK) in the context of the adoption of an agreement on nationwide recognition of cantonal diplomas.

With a number of intercantonal agreements, the Conference of Cantonal Ministers of Education (EDK) now took the lead in reorganizing the higher education sector. Driven by the need to ensure better mobility of teachers between the cantons, the Conference prepared an intercantonal agreement on mutual recognition of diplomas, which was eventually adopted in 1993.<sup>105</sup> The adoption of this regulatory framework by the ministers' conference represented a decisive step in the governance of teacher education. By means of this intercantonal agreement, the EDK acquired regulatory competence in a strictly cantonal policy sector and was henceforth entitled to set minimal standards required for nationwide recognition of cantonal diplomas (Lehmann 2010: 218). This new type of intercantonal regulation gave the Conference of Ministers of Education a powerful instrument of governance and harmonization in teacher education at the national level. Thus, the EDK now has the status of a national accreditation authority as to programmes of teacher education.<sup>106</sup> However, the intercantonal agreement rather serves as a regulatory framework for further intercantonal harmonization. The agreement itself does not stipulate requirements as to the content of teacher education in terms of access, personnel or examination procedures. To this purpose, expert groups were set up to conceptu-

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<sup>104</sup> „Der Lehrerinnen- und Lehrerberuf musste, angesichts der Neupositionierung vergleichbarer Berufe, konkurrenzfähig bleiben. Und dies verlangte durchgehende Tertiarisierung der Ausbildung“ (cf. Kramer: Lehrerinnen- und Lehrerbildung und Aufbau der Pädagogischen Hochschulen (PH). Referat an der EDK-Plenarversammlung, 8. November 2001). Similarly, the representative of the management of a UTE explained this dynamic retrospectively: “Les HEP ont émergé un peu dans le siège des HES. J'ai même parfois l'impression que c'est un peu dans l'urgence. C'est-à-dire instantanément les écoles d'ingénieur ont pris le leadership de l'opération à dire 'Maintenant il faut qu'on devienne haute école'. Et puis, quelque part les autres ont un peu galopé derrière parce qu'elles se sont dit si les écoles d'ingénieur deviennent HES alors nous n'allons plus être suffisamment attractives pour attirer suffisamment de gens. Il faut aussi que l'on monte au même niveau. Alors après, évidemment, il y a les influences des autres pays. Il y a ce mouvement interne à la Suisse et puis le mouvement des pays industrialisés, où la formation des enseignants est montée au niveau tertiaire. En fait le rythme de décision est très rapide, ce qui se passe entre 90 et 95, pour l'émergence des HEP en tant que haute école c'est extrêmement rapide comme évolution“ (Representative of UTE, Interview, RESP 040, 8).

<sup>105</sup> Adopted by the EDK on 18 February 1993, in force since January 1995, the agreement on the mutual recognition of cantonal diplomas gives the EDK the competence to approve nationwide recognition of educational and vocational diplomas and to set minimal standards for recognition (EDK 1993a).

<sup>106</sup> It is important to note that the EDK regulations of teacher diplomas based on the intercantonal agreement on diploma recognition only represent an accreditation of programmes, not institutions (cf. Rosenberg and Stadelmann 2010; Ambühl 2010).

alize specific regulations for the state-wide recognition of the education of the different categories of teachers (Lehmann 2010: 219).

Contemporaneously, aspects and structures of future teacher education were dealt with in an expert group drafting a report in order to discuss the issue and to set up a common strategy. In this report, called a mission statement on the development of universities of teacher education, the concept of teacher education at the tertiary level, organized in universities of teacher education (UTEs), was officially presented for the first time (EDK 1993b). The report was presented in September 1993. With this official report defining the goal of a reformed teacher education, the EDK took the lead, framing the issue at the national level.

This mission statement on the UTEs (EDK 1993b) was developed by a working group primarily composed of professionals from the teacher education sector. The goal of the statement was to launch the discussion about future teacher education institutions by providing a relatively concrete picture of these new institutions of teacher education, by defining criteria for mutual intercantonal recognition of the new diplomas and by indicating general requirements and challenges with the installation (CDIP 1993b: 36). The authors of the mission statement justified the reform of teacher primary education and the transformation of the normal schools to colleges at tertiary level by the changed demands vis-à-vis today's schools and by the need to professionalize the teaching workforce with regard to enhanced quality (CDIP 1993b: 36). The following missions were defined as core businesses of a new conceptualized teacher education at the tertiary level (CDIP 1993b: 40):

- Training and accompanying future teachers; and giving them access to scientifically based teaching;
- Conducting R+D in education geared to the occupational field Conducting research and development in education oriented towards the occupational field;<sup>107</sup>
- Qualifying their own teaching personnel and providing them with continuous training;
- Participating in the training of professions related to teaching such as pre-school teachers and adult education.

As for the institutional setting, the mission statement identified the UTEs as “equal partners<sup>108</sup> of universities and universities of applied sciences”. Collaboration with the universities was particularly recommended in research and the discipline-based education of teachers. Furthermore, in order to qualify their teaching personnel, the UTEs were to be given the right to grant doctoral degrees and post-doctoral academic study courses (CDIP 1993b: 40).

<sup>107</sup> Cf. the original wording « orienté sur le terrain » resp. « berufsfeldbezogen ».

<sup>108</sup> « Les HEP accomplissent leur mission dans un rapport de partenariat égalitaire avec les Universités (y compris les EPF) et les Hautes Ecoles Spécialisées » CDIP (1993b: 40).

The mission statement thus defined the position of the teachers colleges as being on a par with universities.<sup>109</sup> Differences were seen rather with regard to contents and structures. Concerning their characteristics as higher education institution, the UTEs should have – at least in the field of educational sciences and teacher education – a similar profile as traditional universities. The demand for the academic prerogatives to grant doctoral degrees and offer post-doctoral course was justified by the need to train their own scientific personnel.

Les Hautes Ecoles Pédagogiques devraient obtenir le droit de décerner des titres universitaires<sup>110</sup> et l'habilitation au moins pour les études suivies dans le domaine des sciences liées à la profession d'enseignant. (CDIP 1993b: 41)

Regarding structure, these new institutions were to be conceptualized either as independent higher education institutions, named universities of teacher education (UTEs), as part of a wider network institution with different missions or as associated autonomous institutions of a university (CDIP 1993b: 41). As to the size of the new UTEs, the working group referred to three dimensions: a critical size to fulfil the research mission, the quality of teaching, and the size of the student population (CDIP 1993b: 42). The number of 150 study places was suggested as a threshold.<sup>111</sup> Teaching at the UTEs should be scientifically grounded and should be characterized by a reciprocal relationship between training and research, and between theory and praxis:

Les HEP s'efforcent de dispenser une formation professionnelle fondée sur la théorie et orientée sur la pratique. [...] Les HEP se distinguent par la dialectique qui s'exerce entre la formation proprement dite et la recherche, comme aussi entre la théorie et la pratique. [...] Les futurs maîtres et maîtresses doivent pouvoir expérimenter, par une activité pratique, le fait que seule une approche des tâches scolaires quotidiennes par la recherche assure une bonne activité pédagogique. A partir du moment où les Hautes Ecoles Pédagogiques participent à des projets scientifiques de recherche sur le développement de l'école, les candidats sont introduits, pendant leurs études déjà, dans leur fonction de "praticien chercheur". Seul l'apprentissage par la recherche apporte la garantie de l'indispensable formation à l'interprétation qui permet, dans la vie scolaire quotidienne, de prendre conscience des problèmes, de les formuler et de les résoudre. (CDIP 1993b: 45)

As for the qualification of teaching personnel at the UTEs, the mission statement was more flexible, requiring the teacher educators to have completed university studies or “equivalent studies” and to hold an additional qualification as a teacher. The research centres were to be led by particularly qualified researchers and preferably holding a post-doctoral degree<sup>112</sup>

<sup>109</sup> The slogan is used in analogy to the characterization of the UASs (cf. Conseil fédéral 1994: 11; see also footnote 95, p. 107).

<sup>110</sup> Cf. the term in the German version « Promotionsrecht ».

<sup>111</sup> “L'offre de 150 places constitue à cet égard un plancher. [...] une Haute Ecole Pédagogique ne peut devenir un partenaire respecté des Universités que si elle offre plusieurs centaines de places d'études.” (CDIP 1993b: 51); subsequent documents suggest the number of 300 as the minimum of students (CDIP 1995: B.6).

<sup>112</sup> Post-doctoral qualification, entailing the right to teach at university (*venia legendi*).



(CDIP 1993b: 46). The authors of the mission statement adhered to the classical dual qualification for teacher educators – a university degree plus a teaching certificate. However, the requirements of a university degree can also be met by equivalent non-university studies. But with such a qualification of the teaching personnel, the UTEs substantially differ from universities since the teaching personnel at a university, usually qualified with at least a PhD or a post-doctoral degree (habilitation), is thus better qualified than the teaching personnel at the UTEs. Finally, access to the UTEs is determined by the requirement of the general baccalaureate, the university entrance qualification certifying a broad general education at post-secondary level.

The concept of universities of teacher education proposed by the mission statement led to a lengthy debate among the cantonal ministers. Several ministers argued that it was important to underline the close reference to the practice that would also be kept for the new UTEs, as they could run the risk of rejection by the population as being too academic for the training of teachers.<sup>113</sup> Nor was it clear whether the UTEs were to be universities or UAS.<sup>114</sup> Furthermore, the ministers feared higher costs with the creation of the UTEs. Higher salaries of the teaching personnel at the UTEs were necessary, and teacher education would generally be more expensive since it was dispensed at UTEs.<sup>115</sup>

### 8.3 Consensus on a general profile of the UTEs

The mission statement of the working group from 1993 was finally adopted in 1995 by the Swiss Conference of Ministers of Education (EDK). The core elements were adopted as so-called recommendations, i.e. common guidelines for cantonal policies aimed at reforming teacher education (EDK 1995). Recommendations by the EDK have a relatively strong impact on the policies of the Confederation (cantons).<sup>116</sup> Concerning teacher education and the development of the UTEs, the Conference now offers the following definition:

<sup>113</sup> „Dabei muss jedoch vorsichtig argumentiert und der Praxisbezug des neuen Ausbildungswegs betont werden, denn im Volk wird die akademische Nähe kritisiert. In Luzern fand dazu im Parlament eine Debatte statt. Offensichtlich wird der Regelweg über das Seminar vehement verteidigt und die neue Ausbildung, welche zu stark akademisierte, abgelehnt.“ (Protokoll Jahresversammlung EDK, 28./29.10.1993, p. 11).

<sup>114</sup> „Ist die pädagogische Hochschule eine Fachhochschule oder eine Universität (Anleihen hat sie bei beiden)? (Ibid.)

<sup>115</sup> „Ausbildner erhalten an Universitäten höhere Löhne als am Seminar (weniger Lektionen). Zudem kommt es zu einer Verteuerung, falls an PHs Forschung betrieben wird“ (Protokoll Jahresversammlung EDK, 28./29.10.1993, p. 12).

<sup>116</sup> The conference offers the following description of the recommendations: « L'Assemblée plénière de la CDIP peut émettre des recommandations à l'intention des cantons "aux fins de développer l'école et d'harmoniser leurs législations cantonales respectives" (art. 1 du concordat scolaire de 1970). L'adoption de recommandations requiert la majorité des deux tiers de l'assemblée. Les recommandations n'entraînent pas d'obligations exécutoires du point de vue juridique, mais elles ont un effet d'harmonisation certain en ce sens qu'elles sont le fruit d'un travail consensuel auquel tous les cantons prennent part et qui dure généralement plusieurs années. » (www.edk.ch/dyn/11704.php [22.12.2010]).

La formation du corps enseignant a lieu en règle générale au niveau tertiaire, c'est-à-dire dans les universités, dans les hautes écoles spécialisées (hautes écoles pédagogiques, hautes écoles de musique, hautes écoles d'art et d'arts appliqués) ou dans des institutions de formation particulières. [...] Conformément aux thèses de la CDIP du 18 février 1993, les hautes écoles pédagogiques sont des hautes écoles spécialisées. (CDIP 1995)

According to the recommendations, the universities of teacher education (UTE) are thus defined as being universities of applied sciences. Whereas the mission statement, developed by the professionals, originally positioned the UTEs as being “equal partners” of universities and universities of applied sciences – virtually a third type of higher education institution –, the politically much more binding statement by the ministers of education now designates the new teacher education colleges as forming part of the college sector.<sup>117</sup>

As for target size, the recommendations state a minimum of 300 study places (CDIP 1995)<sup>118</sup>. Note the increase from the number of 150 mentioned in the mission statement up to 300 as a critical mass for a UTE. In the commentary to the recommendations, it is even mentioned that on grounds of quality, the new UTEs should normally offer study places for more than 500 students:

Eine Fixierung der Zahl von 300 Studienplätzen wird durch das Bestreben diktiert, die Qualität der Lehrerbildung sicherzustellen, insbesondere im Bereich der berufsfeldbezogenen Entwicklung und Forschung, wo aus inhaltlichen und finanziellen Gründen eine kritische Grösse für die Qualitätssicherung Voraussetzung ist. Mit dieser Zahl können Kantone und Regionen auch auf spezielle Situationen Rücksicht nehmen (z.B. Tessin). Im Normalfall werden aber Pädagogische Hochschulen aus qualitativen und finanziellen Gründen mehr als 500 Studienplätze anzubieten haben.<sup>119</sup>

These recommendations adopted by the EDK in 1995 gave the cantons a common framework of reference for reforming teacher education and creating their cantonal HEI for teacher education. Among these, several had already begun projects aiming to reform teacher education. In the late 1990s, we can thus observe different and overlapping developments and reforms at cantonal, regional and national level regarding higher education policies, especially with the reform of the traditional normal schools, the so-called teacher training seminaries. By 2001, over a dozen projects of universities of teacher education had been launched, involving a majority of cantons with vast institutional changes and reforms. In many cantons, the creation of a UTE required constitutional amendments that had to be legitimated by popular referenda.

<sup>117</sup> This is acknowledged in a commentary to the recommendations: „Diese Aussage bedeutet eine Korrektur der im Dossier 24 zum Ausdruck gekommenen Grundhaltung einer PH zwischen Universität- und Fachhochschulsystemen. Die Empfehlung (inkl. die Bezeichnung) entspricht dem einstimmigen Beschluss der EDK vom 18.2.1993“ (cf. EDK, 1995, Bericht zu den Empfehlungen zur Lehrerbildung und zu den Pädagogischen Hochschulen, Bern, p. 3).

<sup>118</sup> « Les hautes écoles pédagogiques doivent offrir au moins 300 places d'études. [...] » (CDIP 1995).

<sup>119</sup> Cf. EDK, 1995, Bericht zu den Empfehlungen zur Lehrerbildung und zu den Pädagogischen Hochschulen, Bern, p. 4.

## 8.4 Governance of the universities of teacher education

On the basis of on the regulatory framework on the intercantonal diploma recognition (EDK 1993a), the Conference of Cantonal Ministers of Education subsequently issued a series of intercantonal regulations on recognition of cantonal teacher education (EDK 1998, EDK 1999a, EDK 1999b). Through these new regulations, the Conference defined national standards as to access, duration of study, curriculum and qualification of the personnel or the requirement of a tertiary level education for teacher education. The intercantonal governance structured by the EDK thereby intervened heavily in the cantonal policies in terms of structure and content of teacher education (Ambühl 2010; Lehmann 2010). Thus, the reform and tertiarization of teacher education did not result from higher education policy determining funding, mission and task of HEIs for teacher education, but rather from the standardization of the teachers' diploma:

Die Tertiarisierung wurde also gesamtschweizerisch über die Anwendung des Diplomanerkennungsrechts gesteuert, welches mit der Interkantonalen Vereinbarung über die Anerkennung von Ausbildungsabschlüssen gerade eben seine verbindliche Grundlage erhalten hatte. Diese gesamtschweizerische Steuerung einer strukturellen Reform über die interkantonale Anerkennung der Abschlüsse war erstmalig und ist bisher einmalig geblieben. (Ambühl 2010: 16)

However, there was still ample room for the cantons within implementation, which remained exclusively in their realm. And – what counts most with regard to the research question of this thesis – the diploma regulations, although they define the tertiary level as a requirement for teacher education, do not regulate the type of HEI designed for teacher education or specify how and where teacher education should be integrated into the higher education system (Rosenberg and Stadelmann 2010). Consequently, there was no decision as to the institutional setting in which teacher education had to take place. As a result, cantons are free to train their teachers at either university, universities of applied sciences or universities of teacher education. The intercantonal regulations of teacher education do not imply the structural situation of the higher education system as a whole. The way teacher education and in particular the UTEs were to be integrated into the higher education system remained open.

The consequence of this intercantonal policy is that teacher education will not be attributed exclusively to the new conceptualized universities of teacher education but rather will be viewed as a specific sector of occupational training that can be provided at different types of institutions. Thus, teacher education will be provided, among others, by UTEs but also by universities of UASs. Conversely, the UTEs cannot derive an exclusive right to train teachers; they have no monopoly in this field. This is the weak point in the concept of the UTEs: the

basic regulations of the UTEs do not define them in terms of functional differentiation of the higher education system as the only HEI designed for the education and training of teachers.

Though the diploma regulations have now given the Conference intercantonal regulatory instruments affecting the content, structure and process of teacher education within the cantons, there are no further instruments that would enable the EDK to intervene in the governance of the cantonal UTEs. As for the financial governance of the HEIs, there is – unlike the situation with the UASs – no means for effective resource-oriented governance.<sup>120</sup> The only regulation on the intercantonal level is the agreement on burden-sharing among the cantons based on the number of students from other cantons (FHV).<sup>121</sup>

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<sup>120</sup> „[...] das interkantonale Recht [sieht], abgesehen von der FHV (die allerdings für die PH wegen geringer Studienmobilität eine kleinere Rolle spielt), keine Instrumente zur ressourcenorientierten Steuerung der Pädagogischen Hochschulen vor. Eine gesamtschweizerisch koordinierte finanzpolitische Steuerung kommt im Falle der PH deshalb nicht in Frage.“ (Masterplan Pädagogische Hochschulen: Verabschiedung. Bericht des Generalsekretariats. Plenarversammlung, 1. März 2007).

<sup>121</sup> Based on the « Accord intercantonal sur les hautes écoles spécialisées (AHES) à partir de 2005 du 12 juin 2003 », the home cantons of UTE cantons pay compensation to the funder canton of the UTE.

## 9 Characterizing the Swiss higher education system in terms of diversity

By 2003, fourteen universities of teacher education had opened their doors, some as HEIs of a regional consortium grouping together several neighbouring cantons. The structural change in teacher education has been remarkable: within a few years, a majority of the Swiss cantons shifted teacher education from the postsecondary level up to the tertiary level provided mainly by universities of teacher education (UTES). Since 2003, all teacher education now occurs at the tertiary level. Teachers are taught at higher education institutions granting Bachelor's and Master's degrees. Structurally, the reform resulted in a process of concentration. By the end of the nineties, more than 150 traditional and locally based teachers colleges had been closed or integrated into one of the 15 recently founded teacher education universities. The mission of the teacher education universities encompasses not only teacher education but also general services such as continuing education or research and development (EDK 1993b, 1995; Criblez 2002; Maradan 2002; Schärer 2002).

Given the specific type of policy instrument of the intercantonal regulation in teacher education and the context of the decentralized implementation in the cantons, it is clear that the cantonal UTES have undergone quite different developments as to the content of the teaching programs, the number of subjects for which teachers are trained, access criteria, personnel qualifications or research and development. Quite a broad and heterogeneous institutional landscape has sprung up within the sector of the UTES, reflecting the federal structure of the educational systems. Furthermore, due to the lack of institutional accreditation, any harmonization among the UTES was difficult (Rosenberg and Stadelmann 2010):

*Pädagogische Hochschulen widerspiegeln die föderalistische Bildungsstruktur der Schweiz in recht hohem Masse. Zudem sind die pädagogischen Hochschulen bisher keiner institutionellen Akkreditierung, sondern nur der bereits erwähnten «Programmakkreditierung» auf der Basis der Anerkennungsreglemente unterstellt, was eine Vereinheitlichung des Typus Pädagogische Hochschule im Vergleich beispielsweise zu Universitäten weiter erschwert. (Rosenberg and Stadelmann 2010: 225)*

The creation of an official non-university sector besides the traditional universities in the 1990s describes the transition from a university-dominated system to a binary system with two sectors: a general academic sector and a vocationally oriented sector. However, the degree to which these two sectors are separated along a binary divide and in particular where the new UTES have to be positioned remains controversial (see for instance Perellon 2003: 358).

As developed above, the reform of teacher education has been organized by means of the regulation of diplomas. These are occupational diplomas with a strong reference to the relevant school sector for which the teachers are trained, but they do not represent a classical academic

degree. Once again, this illustrates to what extent the reform of teacher education has been influenced by the school system. The further prospects of the higher education system were rather neglected or left up to the cantonal implementation. This might explain to some degree the current situation, with strong heterogeneity among UTEs and no consensus as to their position within the higher education system. Although the UTEs were initially conceived as belonging to the non-university sector; i.e. representing the institutional type of the universities of applied sciences (see EDK 1995), now, the claim is often made that they represent a third type of higher education institution. Though teacher education is organized as well at universities as at UASs or at independent institutions, the UTEs require their own status and wish to be treated on an equal level with the other types HEIs (CRUS et al. 2009; Rosenberg and Stadelmann 2010: 227; Stadelmann 2010: 94).

Yet the Swiss higher education sector is characterized by various actors and responsibilities. This complicates and even hinders the creation of a comprehensive higher education sector and is one of the reasons for the launching of a draft new Higher Education Act. Mandated by the constitutional amendment of 21 May 2006,<sup>122</sup> the federal Parliament recently drew up a new Higher Education Act covering all types of institutions (Conseil fédéral 2009)<sup>123</sup>. The parliamentary debates focussed on the transfer of competencies from the cantons to the Confederation, on the changed situation for the UASs that will in future be governed by the same legislation than the universities. The issue of the UTEs and their position within the higher education system was also addressed. The new Act divides the area of scope in higher education into two sectors, comprising (a) universities and federal institutes of technology; and (b) universities of applied sciences (UAS) and universities of teacher education (UTEs) (art. 2, al. 2a et b LAHE), thereby maintaining in essence the binary in structure of the system:

Sont réputées hautes écoles au sens de la présente loi: a) les hautes écoles universitaires, à savoir les universités cantonales et les écoles polytechniques fédérales (EPF); b) les hautes écoles spécialisées et les hautes écoles pédagogiques.

Yet, when it comes to the admission requirements, the discrimination is based on the classical division between general vs. vocational education (art. 24, al. 1 LAHE), distinguishing three types of HEIs but mentioning the UTEs together with the universities:

Art. 24 Admission aux hautes écoles universitaires et aux hautes écoles pédagogiques; al. 1 : 1 Les hautes écoles universitaires et les hautes écoles pédagogiques exigent en principe une maturité gymnasiale pour l'admission au premier cycle d'études. Aide aux hautes écoles et coordination dans le domaine suisse des hautes écoles.

<sup>122</sup> Cf. Art. 61a, al. 1 et 2; Art. 63a, al. 3 et 4 of the Federal Constitution.

<sup>123</sup> Cf. loi fédérale sur l'aide aux hautes écoles et la coordination dans le domaine suisse des hautes écoles (LAHE).

Art. 25 Admission aux hautes écoles spécialisées; al. 1 : L'admission au premier cycle d'études dans une haute école spécialisée requiert: a) une maturité professionnelle liée à une formation professionnelle initiale dans une profession apparentée au domaine d'études; b) une maturité gymnasiale et une expérience d'une année au moins du monde du travail ayant donné au candidat des connaissances pratiques et théoriques dans une profession apparentée au domaine d'études choisi, ou c) une maturité spécialisée dans une spécialisation apparentée au domaine d'études choisi.

During the parliamentary debates, most speakers mentioned three different types of higher education institutions,<sup>124</sup> but the question of where to position the new institutions of teacher education remains unsolved. Are the UTEs to be classified within the college sector, within the university sector, or between the two? Do we still have a binary structure of the higher education sector, or rather is it “multi-type” (Teichler 1998)?

The creation of universities of applied sciences led to a system differentiation in higher education. Following the terminology developed by (Scott 1996) and (Huisman 1995), the Swiss system differentiated into a binary system with two broad sectors – a generally more research-oriented sector and a rather vocationally oriented one. The two sectors are clearly distinguished by separate legislation, different missions and different student populations. Although there has been an upgrading of the existing non-university institutions into the higher education system (at ISCED level 5A), the non-university institutions were not attributed the same profile, status and name as the universities. The system is clearly divided into two different sectors, a university and a non-university sector. Furthermore, until now the two are not regulated under the same legislation. Compared with other European systems, Lepori and Kyvik (2010) assess the binary system in Switzerland as relatively stable, primarily due to the different legislations and ministries governing them. Furthermore, the universities of applied sciences have their own funding and career system. There are specific funding mechanisms<sup>125</sup> for the UASs, which recruit and appoint professors with different qualifications from those of university professors (Conférence suisse des hautes écoles 2004).

Yet the characterization as binary is controversial. Thus, Lepori and Kyvik (2010) describe the Swiss system as binary in nature while specifying that actual differentiation patterns are more complex than the classical binary divide along vertical hierarchies and horizontal functionalization suggested by Bleiklie (2005). Consequently, they would describe the current

<sup>124</sup> See for example: „Maissen Theo, für die Kommission: [...] *Es gibt drei Hochschultypen: Universität, Fachhochschule und Pädagogische Hochschule* [emphasis added]; etwas anderes gibt es nicht. Alles andere sind Brands, die man zu Werbezwecken verwenden kann, aber von den drei Haupttypen sollte nicht abgewichen werden. [...] *Man sollte konsequent und ehrlich sein: Eine Hochschule für Musik ist entweder eine Universität oder eine Fachhochschule* [emphasis added]. Sie hat die Wahlfreiheit und muss sich entscheiden. Sie kann nicht zu Werbezwecken als Zwitter auftreten; der Inhalt hat mit der Bezeichnung übereinzustimmen. [...] Das Gesetz ist in der Einteilung sehr konsequent. Jede Schule kann sich bewerben und sich bei der Akkreditierung entscheiden, welche Voraussetzungen sie zu erfüllen gedenkt. Etwas dazwischen vorzugeben ist nicht korrekt. [...]“ (Ständerat, 12. Sitzung, 30.09.10, AB 2010, p. 970)

<sup>125</sup> The Confederation's innovation promotion agency, CTI (CTI/KTI); cf. [www.kti.admin.ch/index.html?lang=en](http://www.kti.admin.ch/index.html?lang=en) [18.01.11]

developments in Europe as rather “different forms of differentiation” (Lepori and Kyvik 2010: 313). According to the authors, the predominant criterion of differentiation is the research mission of the higher education institution: whereas in education, differences between the types would diminish, differences between the two sectors in the extent of research, competence and output are substantial. In education on the contrary, differences between general and vocational curricula were a matter of degree and not of category, the permeability of the two sectors was guaranteed and reputational differences were small (Lepori and Kyvik 2010: 313).

Perellon is even more sceptical about the nature of the system (Perellon 2003). He argues that the “idea of a binary policy” implying a sharp division between an academic and a vocational sector is no longer relevant. The notion of “binary divide” was “outdated to account for the sectorial division” (Perellon 2003: 357), for both sectors adopted characteristics of the other, as a result of which the boundaries between them became increasingly blurred. Furthermore, according to Perellon (2003) the binary divide fails to take into account the different policy levels intervening in higher education. Characterizing the difference between the cantonal universities and the federal institutes of technology as a first division in higher education on the scientific vs. vocational criterion, he argues that the introduction of universities of applied sciences reflects a third component in higher education (Perellon 2003).

With regard to the development of the higher education system, Perellon (2003) agrees that the creation of the universities of applied sciences was a “direct outcome of a process of differentiation in Swiss higher education” (*ibid.*, 362), and he concludes that the establishment of a new college sector with universities of applied sciences would need a reorganization of the entire higher education system. This is exactly what – with a delay of about two years – the Federal Assembly is doing at present with the preparation of the Act on Promotion and Coordination of Higher Education Institutions (HFKG). Nevertheless, one key question remains: how to keep the current degree of diversity while coordinating and further integrating the system (Perellon 2003: 362). In other words, what was and is the impact of the increasing integration of the entire higher education system following the creation of the UASs?

However, Lepori and Kyvik (2010) clearly show that the question of whether non-integrated higher education systems develop academic drift and evolve towards integration within a unitary system or maintain their binary divide depends crucially on a way of differentiation which they call “hard differentiation”. That is a policy of differentiation where the regulator provides different rules and funding mechanisms for universities and colleges. Such a form of differentiation is justified by the fact that the non-university institutions collectively develop their specific research mission, which is perceived as being different from universities and which is accepted by the state and social actors (Lepori and Kyvik 2010: 314). Such a



model, the authors conclude, “[...] critically depends on a strong action of the State to legitimize the specific UAS research mission and to promote it in its early phases” (ibid.).

Although all higher education systems are subject to forces of hierarchization and functional differentiation, there are, according to Lepori (2010) critical points of bifurcation where the institutional choices made can have lasting structural effects on the system configuration.

Hence, it seems that with the introduction of universities of applied sciences, the higher education system in Switzerland differentiated successfully and that this differentiation remained rather stable although there are tendencies towards integration and the differences in some aspects became blurred (Weber et al. 2010a).<sup>126</sup> It is open to question, however, to what extent the system integration finally will be carried out regarding the new Law on Higher Education (Perellon 2003).

The establishment of teacher education colleges brought a further differentiation of the system. The UTEs, albeit officially part of the college sector, are regulated by the cantons, not by the Confederation, like the universities of applied sciences. Whereas the system differentiation with a specific profile of the universities of applied sciences might be stable and become institutionalized (Lepori and Kyvik 2010), the situation for the institutions of teacher education seems to be rather unclear and their development within the higher education system is open. Originally, they were categorized as universities of applied sciences, thus clearly positioned in the college sector. Currently, they rather tend to form a third sector of their own, but with an unclear positioning along the vocational-general axis. Nor do they have a precisely defined research mission and strong collective action regarding their role and mission within the higher education system.

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<sup>126</sup> According to Weber (2010a) the UASs are traditionally rooted in the vocational system at the secondary level, yet with the integration of fields that are not based on vocational education at the upper secondary level (e.g. the fine arts, music, social work etc.), the boundaries between the UASs and the universities have become even more blurred (Weber et al. 2010a).



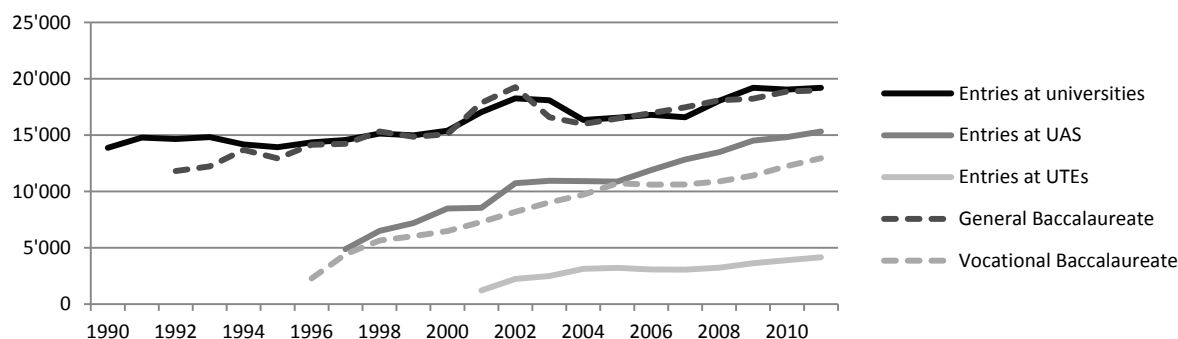
## 10 Empirical description of the higher education system

In the following section, I shall give an overview of the actual situation of the higher education system, describing the different types of HEIs on the basis of statistical data. The three university segments, universities, UASs and UTEs, are compared as to size (in terms of student population), funding, students' entry qualifications, academic staff and third party research funding.

### 10.1 Transition to higher education

With the establishment of new sectors in the higher education system at the end of the 1990s, a further segment of the population was integrated into higher education. The substantial increase in the tertiary attainment level is principally due to the introduction of new types of HEIs that recruit a new student population. In 2010, the ratio of tertiary attainment level of young persons in Switzerland makes up 31%, which is more than the OECD average of 28% (OECD 2012: 36).

**Figure 10.1: Development of higher education entries (1990-2011)**

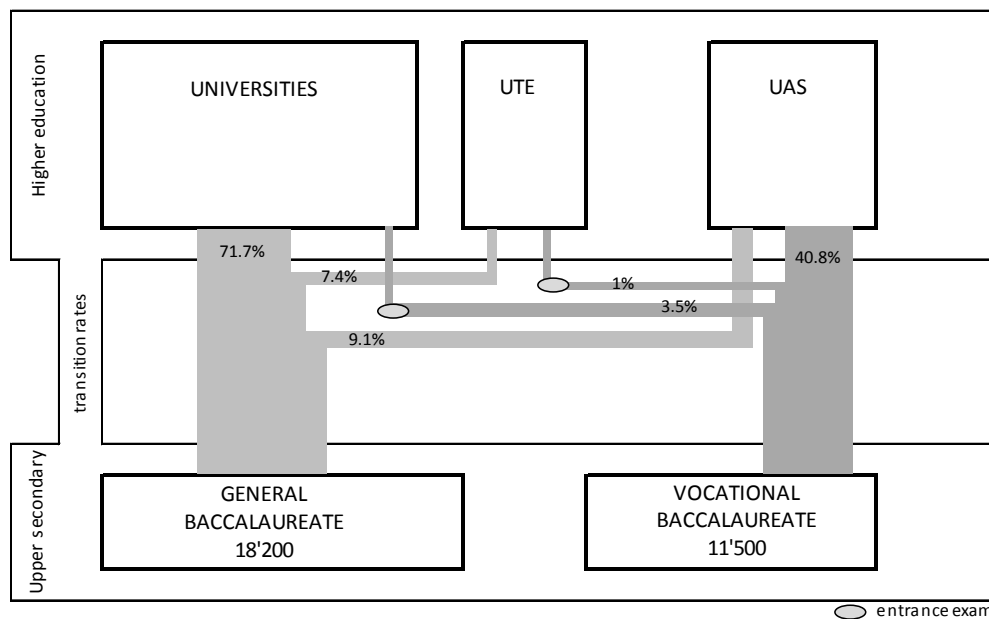


Data: FSO

The development of the universities of applied sciences since 1997 and the universities of teacher education since 2001 is illustrated by the sharp increase in study entries at the non-university sector during the first decade of the new millennium (see Figure 10.1). By 2011, the UASs and the UTEs, taken together, almost equalled the number of entries at university. Yet this increase does not only come from high school graduates (general baccalaureate), since the number of general baccalaureates depicts a parallel development with the university entries. In other words, it becomes obvious from this graph that the UTEs were not able to recruit their students solely from the high schools (general baccalaureate). The continuous increase of university entries parallel to the number of general baccalaureates was only possible by the

recruitment of foreign students, given that the transition ratio of high school graduates to university accounts for only some 70% (see Figure 10.2). In sum, the vast extension of the higher education sector during the last two decades was realized by opening access to higher education for a wider population, on the one hand by increasing the ratio of general baccalaureates, and on the other hand by introducing new categories of upper secondary certificates that open access to higher education such as the professional or the specialized baccalaureate.

**Figure 10.2: Transition from upper secondary to higher education (2008 cohorts)**



Data: FSO; Illustration based on (BFS 2011: 9)

Mobility within the higher education system is assured even though the ratio of students entering a university with a vocational background or vice-versa, high school graduates entering a UAS, is low. Whereas high school graduates literally have the free option to choose studying at university, UAS or UTE, graduates with a professional baccalaureate need to pass a special entrance exam before starting university or UTE studies (see Figure 10.2). Quantitatively, there are six times as many high school graduates at UTEs as graduates with a professional baccalaureate.

## 10.2 The size of higher education institutions

In 2011, nearly 200,000 students were studying at higher education institutions. Among these, 57% were studying in the university sector (including the two Federal Institutes of Technology), 35% were studying at one of the seven public universities of applied sciences (UAS) and 8% were at a university of teacher education (UTE) (see Figure 10.3). The entire non-

university sector (thus comprising UASs and UTEs) has grown substantially in recent years and now makes up almost half of the higher education sector.

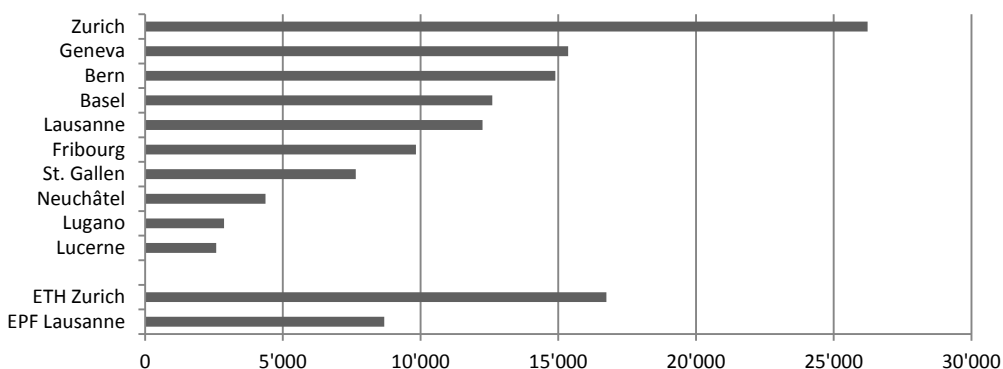
**Figure 10.3: Students in higher education (all types) (2011)**



Data: FSO

Apart from specialized or regional universities, the traditional Swiss universities with the full range of faculties (*universitas litterarum*) founded in medieval times or in the early 19th century comprise between 10,000 and 25,000 students (see Figure 10.4). St. Gallen, founded as a business school, and Neuchâtel, a former Prussian college, are cases with special local relevance. Similarly, Lugano and Lucerne were founded on the basis of particular regional interests, justifying the small size of less than 3,000 students. The traditional universities are located in the populous cities along the east-west axis of the country.

**Figure 10.4: Students at university (2011)**



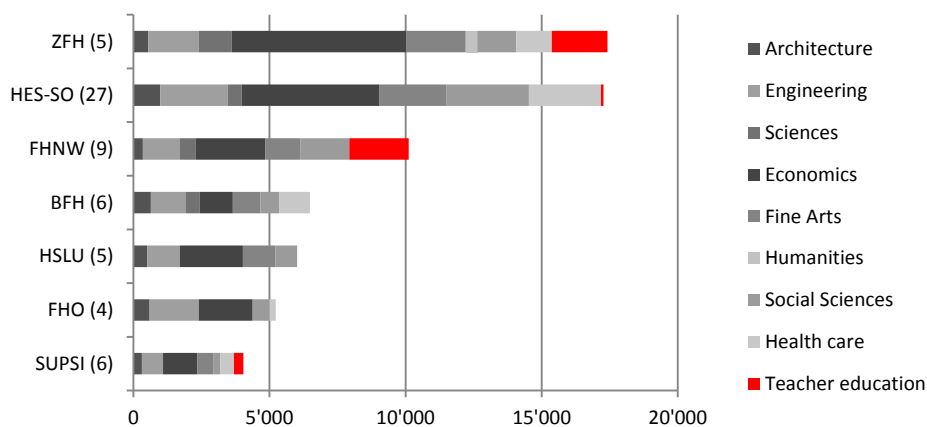
Data: FSO

The public universities of applied sciences (UASs) comprise between 4,000 and 17,000 students. In the process of the conceptualization and establishment of the UASs, the federal bodies had to respect the cantonal agenda but the federal regulator ensured with a limited number of HEIs that the new UASs achieved a reasonable size of students.<sup>127</sup>

<sup>127</sup> The discrepancy between cantonal and federal interests is illustrated by the divergent ideas about the size of the UASs between the federal government and the cantons at the conceptualization phase. Originally, the federal government proposed a maximum of 10 UASs comprising at least 500 students, whereas the Conference of the Cantonal Ministers of Education (EDK) conceived of 150 students (Weber et al. 2010a: 52).

However, the decentralized location of the predecessor institutions of the UASs as well as strong regional demands finally led to the creation of rather small institutions in the southern and eastern part of Switzerland. Since the opening of the first UAS, they have experienced enormous growth, which has been accelerated by the integration of further disciplines such as social sciences, health and fine arts under federal supervision in 1995. Today, the whole UAS sector accounts for more than 60% of the university sector.

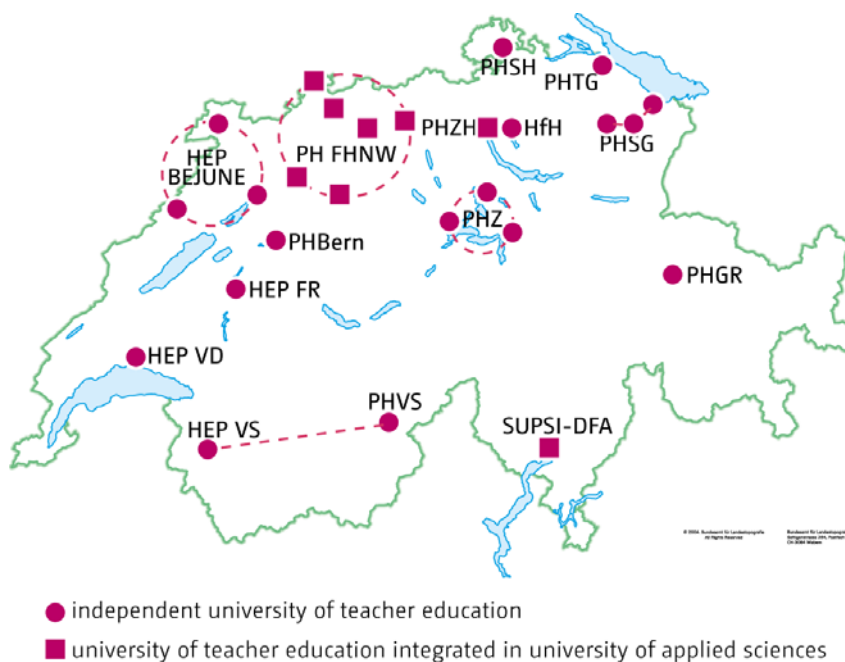
**Figure 10.5: Students at universities of applied sciences by department (2011)**



Data: FSO

Yet one cannot help noting that most of the present UASs represent some sort of holding organization bringing together numerous, relatively autonomous schools. These different schools, now treated as departments of the UAS, are often located at different sites reproducing to some extent the structure of the former decentralized institutions. The numbers in brackets adjacent to the names in the figure above indicate the number of schools or departments of a UAS. The UAS of Western Switzerland is illustrative in this respect: the French speaking cantons got their own UAS – the HES-SO – by merging nearly 30 individual institutions of the tertiary-level B sector into a single large UAS. Yet the problem of divergent cantonal interests within such a regional construction is far from being solved (Batori et al. 2002: 75). Institutions of teacher education integrated in a UAS (e.g. Zurich, north-western Switzerland and Lugano) have the size of an average department within the UAS (see the red bars in the Figure 10.5 above).

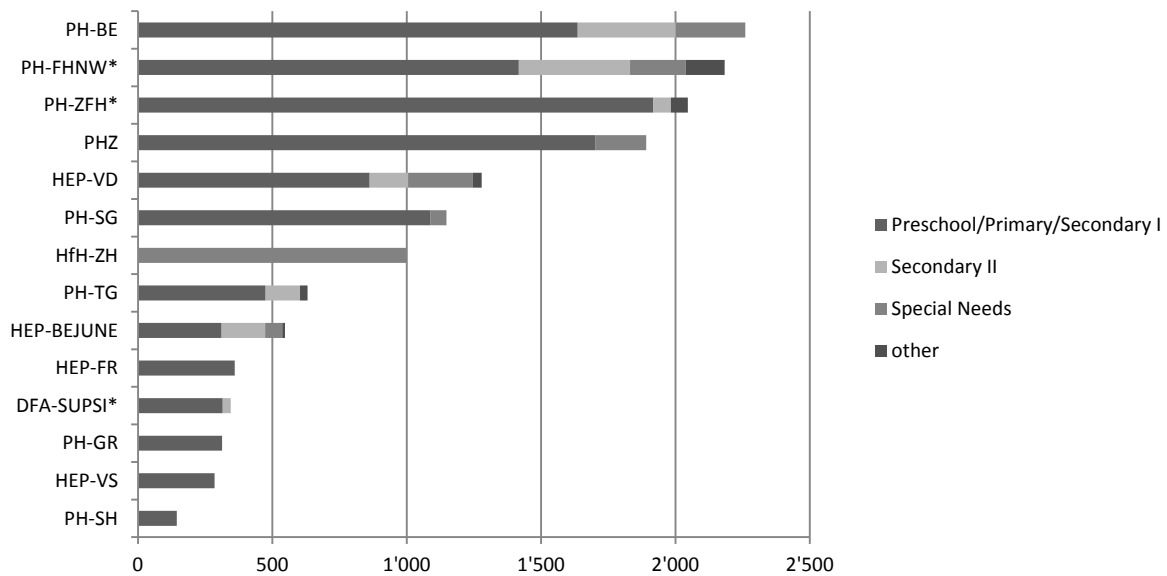
The UTE landscape gives a different picture. They are distributed in a much more decentralized manner (see Figure 10.6). The 14 UTEs are dispersed over 26 sites located in most of the Swiss cantons. Consequently, most cantons have been able to keep their own institution of teacher education. Today, there are only six rural cantons that do not have at least one UTE site.

**Figure 10.6: Geographical distribution of universities of teacher education (2012)**

Source: SCCRE

As a result, average UTE size in terms of students is very small. The 11 independent UTEs that are not part of a larger university of applied sciences receive on average less than 900 students. The biggest UTE is about half the size of the smallest UAS, whereas the smallest UTEs do not even receive the minimum of 300 students – a benchmark provided by the EDK in the conceptualization phase (EDK 1995). This is due to the fact that teacher education has not been brought under federal supervision as the other UAS domains such as social work, fine arts or health care. Teacher education is kept exclusively under cantonal authority. Thus, there has not been any conflict between centralistic tendencies of some federal body and cantonal decentralist interests, as was the case with the UASs (see for instance Weber et al. 2010a: 44). The cantons were free to develop their own individual university of teacher education, irrespective of whether such an institution would achieve a reasonable size for a HEI. The recent development in Central Switzerland,<sup>128</sup> where the consortium of six cantons broke up and the three schools that previously formed the University of Central Switzerland (PHZ) will become independent UTEs, perfectly illustrates that there are no formal requirements or strong incentives to keep a minimal size of HEIs in the field of teacher education.

<sup>128</sup> Regierungsrat des Kantons Schwyz, Beschluss Nr. 956/2010, Schwyz, 21. September 2010 ([http://edudoc.ch/record/71327/files/rrb\\_956\\_2010.pdf](http://edudoc.ch/record/71327/files/rrb_956_2010.pdf), accessed: 18.2.2013; Regierungsrat des Kantons Luzern: Botschaft des Regierungsrates an den Kantonsrat zum Entwurf eines Dekrets über die Genehmigung des Austritts des Kantons Luzern aus dem PHZ-Konkordat, B 152, 16. März 2010 ([http://edudoc.ch/record/37289/files/b\\_152.pdf](http://edudoc.ch/record/37289/files/b_152.pdf), accessed: 18.2.2013).

**Figure 10.7: Students at universities of teacher education by study program (2011)**

Data: FSO

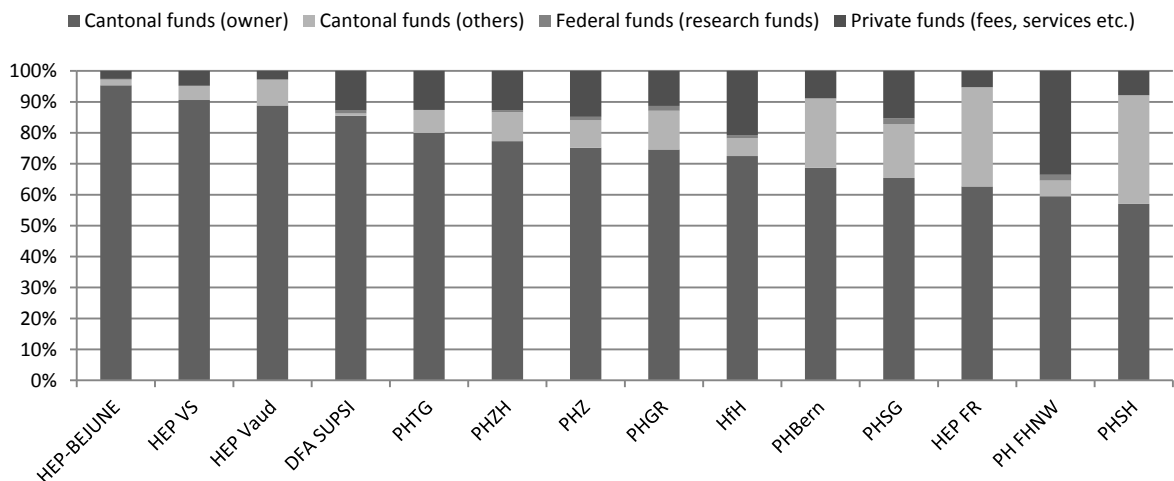
The 14 UTEs receive a total of 14,430 students, 75% of whom are in a programme for compulsory teaching. Among the 14 UTEs, 3 UTEs (receiving about one-third of all students in teacher education) are integrated into a UAS (\*).

### 10.3 Funding of the UTEs

Universities of teacher education are almost entirely funded by the cantons. Besides private funds – mostly in the form of students' fees – and some, still rather small, research funds by the Swiss National Science Foundation (SNF), the UTEs are financed by cantons. These cantonal funds consist of the share of the owner cantons – in general the canton where the UTE is located – and the per-student contributions by other cantons. The share of the owners' funds is an indicator of the intercantonal attractiveness of a UTE (see Figure 10.8). In this way, those UTEs that are able to attract a high number of external students (i.e. students outside of the owner cantons) thus reduce the costs for owners but thereby entice potential students away from other cantons' UTEs. This sort of competition between UTEs does occur, and has become keener among schools situated close to each other (cf. Bildungsdirektoren-Konferenz Zentralschweiz 2009).



**Figure 10.8: Funding shares of UTEs (2010)**

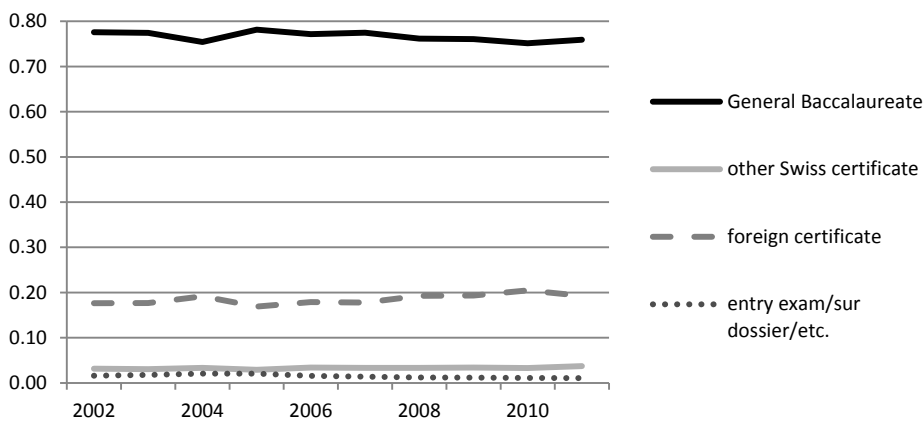


Data: FSO

### 10.4 Access to higher education: Entry qualifications

Higher education students differ in terms of their entry qualifications. As a rule, some 80% of students starting university studies have a general baccalaureate from a Swiss high school (see Figure 10.9). Students with other Swiss certifications form a small minority. If foreign certificates are added to the general baccalaureates – for it can be assumed that the majority of foreign entries are based on an equivalent certificate to the regular general baccalaureate – only some 5% remain, representing other Swiss certificates or special admission procedures based on extra exams or admission on the basis of files.

**Figure 10.9: Entry qualifications of university students (2002-2011)**

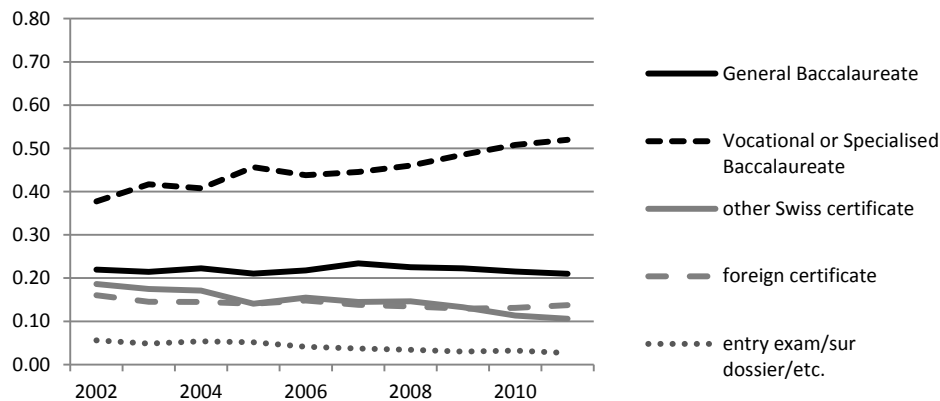


Data: FSO

Students at universities of applied sciences are much more heterogeneous as to their entry qualifications. On average up to 50% enter with a professional baccalaureate – the entry

qualification considered as being the proper certificate for UAS studies – (or with a specialized baccalaureate). Twenty per cent have acquired a general baccalaureate. The remaining 30% consist of other Swiss certificates, foreign certificates and admissions on the basis of files (see Figure 10.10).

**Figure 10.10: Entry qualifications of students at UAS (2002-2011)**

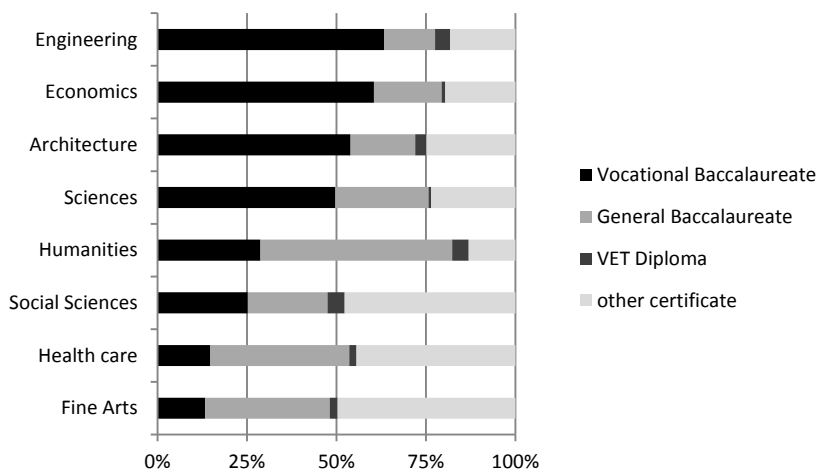


Data: FSO

However, these percentages differ substantially according to disciplinary field. Weber (2010a) distinguishes “traditional”, “newcomer” and “monopolistic” fields: in the “traditional fields” (i.e. engineering, architecture, and economics), students are characterized by a vocational educational path (i.e. apprenticeship and professional baccalaureate). The “newcomer fields” (i.e. social sciences and humanities) comprise a heterogeneous student population: there are fewer students with a vocational background, for these study programmes are also attractive for students from high school. They have certain links to academic disciplines though, but most of them are offered only at UASs. Finally there are the “monopolistic fields” (e.g. the fine arts), which have no connection to the vocational sector, or even to the academic universities.<sup>129</sup> There is no alternative to these study programmes at university (Weber et al. 2010a: 105ff.). Consequently, the highest proportion of students with other than vocational certificates can be found in these disciplines (see Figure 10.11). Weber (2010a) supposes that the observed heterogeneity as to the student composition also affects teaching at the UASs.

<sup>129</sup> University disciplines such as history of art or history of music can be taken as a reference discipline to some degree for fine arts studies at the UASs. However, these disciplines only cover one aspect of UAS studies. The vocational education and training is the responsibility of the UASs.

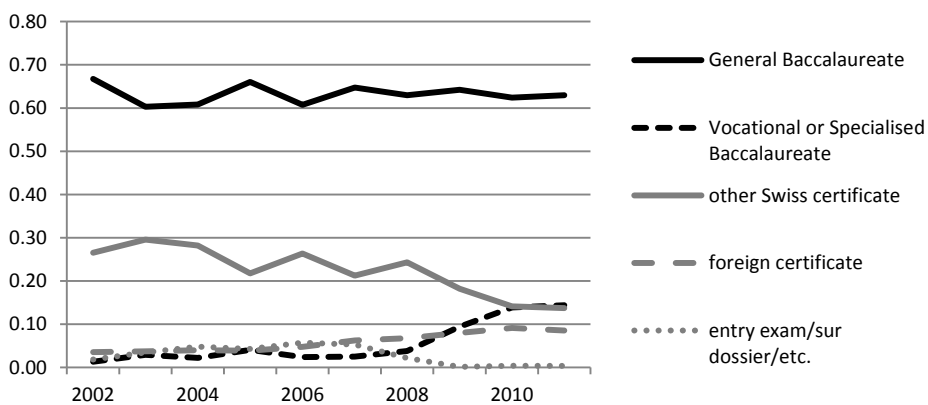
**Figure 10.11: Entry qualifications of UAS-students by field of study (2007)**



Data: FSO

Similarly, the picture is heterogeneous when we look at students' entry qualifications at the universities of teacher education (UTE). Despite the official requirement – as a rule, students in teacher education hold a general baccalaureate (EDK 1995) –, on average less than two-thirds of the students hold a general baccalaureate (see Figure 10.12). Traditional pathways into teacher education with alternative secondary certificates such as the upper-secondary specialized school certificate<sup>130</sup> are still common in certain cantons (see the relatively high proportion of other Swiss certificates in Figure 10.12).

**Figure 10.12: Entry qualifications of students at universities of teacher education (2002-2011)**



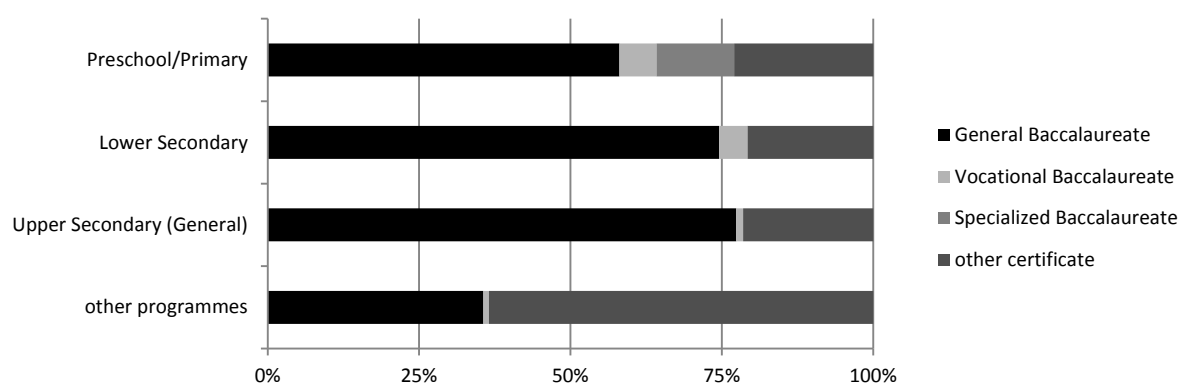
Data: FSO

Recently, entries based on professional and in particular on specialized baccalaureates have increased substantially, replacing other Swiss certificates. This can be traced to the policy of increasing higher education opportunities for graduates of upper secondary specialized

<sup>130</sup> That is the degree from a short cycle upper secondary education, in German “Fachmittelschulabschluss”, in French “certificat d’école de culture générale”. In contrast to the four-year schooling at the general baccalaureate schools, this type only comprises three years of schooling and the certificate does not give access to the universities.

schools.<sup>131</sup> Thus, the specialized school certificate and the specialized baccalaureate<sup>132</sup> were accepted as formal entry into the pre-primary, the latter also to the primary level programme of teacher education. The proportion of UTE students holding a general baccalaureate is low among students for the pre- and primary level teaching and high among those preparing for upper secondary level teaching (see Figure 10.13). In most cantons, as a rule the latter first acquire a university master in the discipline they are going to teach before entering a study programme at a UTE.

**Figure 10.13: Entry qualifications of UTE-students (2011)**



Data: FSO

Considering these differences as to entry qualification between the different types of HEIs, the UTEs, as well as the UASs, must be considered as representing HEIs offering a diversified higher education programme. This being so, they attract a different student clientele than the conventional universities. However, empirical evidence as to the effects of the differentiation of the students' profile on teaching, success rate and productivity at the different HEI types is still lacking.

## 10.5 Profiles of academic staff of different types of HEIs

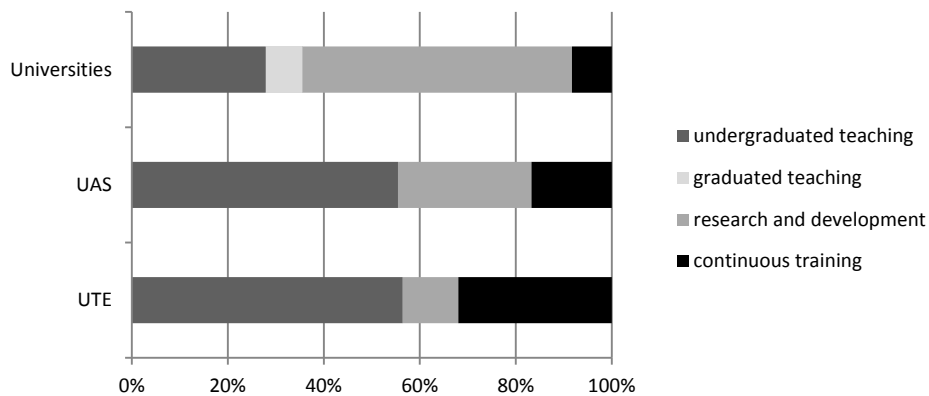
The different degree of research intensity between the types of HEIs becomes evident when comparing the shares of academic staff allocated to the different activities. Teaching and education have significantly greater importance in the non-university sector, whereas the universities' principal mission is research and development, to which more than half of the resources in personnel are allocated (see Figure 10.14). The UASs allocate on average about

<sup>131</sup> Traditionally, these schools offered a shorter and generally less demanding general upper secondary education during three years, often preparing for vocational training (at tertiary B level) in education (kindergarten), the health-care sector (nurses) or social work. Since most of these professions now get trained at UASs at the tertiary A level, access from these specialized schools had to be revised.

<sup>132</sup> *Fachmaturität* in German; *maturité spéciale* in French

one-fourth of their budget to research and development, as against only about 10% for the UTEs. Besides education and teaching, an important type of activity for the UTEs is continuous education and training. This is also due to the new role the UTEs have in continuous training of the teaching workforce.

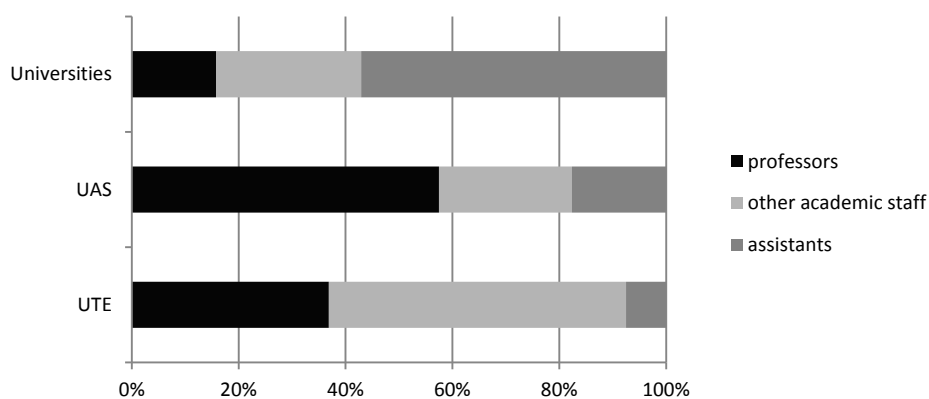
**Figure 10.14: Distribution of activities of HEI types measured in FTE of academic staff**



Data: FSO

The composition of the teaching and research staff mirrors the different institutional characteristics and missions of the different university segments. As a consequence of the institutional profile described above, the non-university sector – the UAS and the UTEs – employ most of their academic personnel for teaching and education (in proportions of over 80%). The UTEs have on average the smallest proportion of research assistants, suggesting that the research function is less developed than at the UAS. Possible reasons could be that research projects at UTEs are on average smaller, providing fewer resources for research assistants, or that the working conditions for assistants are less attractive at UTEs. Although neither the UAS nor the UTEs can provide doctoral programmes, they can still offer attractive assistant posts within a larger research centre collaborating with universities.

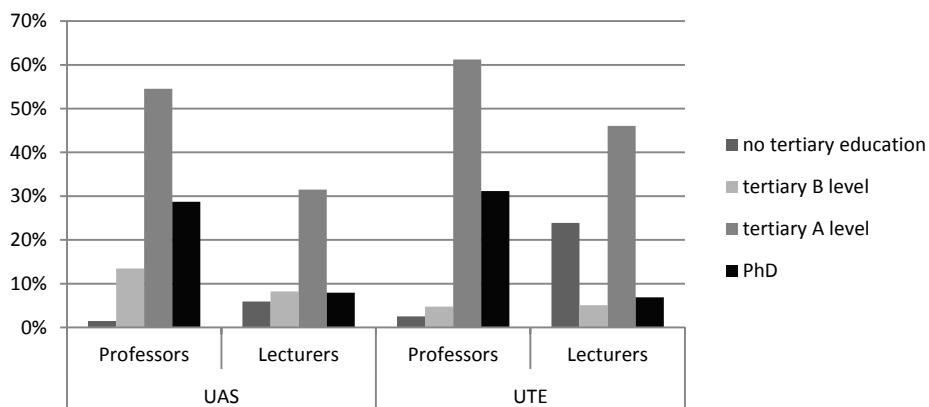
**Figure 10.15: Categories of academic staff by type of HEI (2011)**



Data: FSO

Finally, there are sizable differences as to the academic qualifications of the teaching staff among HEI types (see Figure 10.16). The proportion of teaching staff (professors and lecturers) within the non-university sector holding a PhD is small; among professors, this makes up about 30%, among lecturers less than 10%. The latter often come from the practical world (industry, performing arts, teachers etc.) and have small teaching assignments at a UAS or a UTE. The personnel structure at the conventional universities is strictly hierarchically organized with teaching and research assistants at the bottom, then lecturers, then assistant professors and finally ordinary professors at the top. As a rule, the qualification requirement for lecturers at universities is at least the doctorate; professors have generally acquired further post-doctoral degrees such as for instance the *venia legendi*. It can thus be assumed that the vast majority of professors and lecturers at universities hold at least a PhD. Consequently, the academic qualification structure of the university staff contrasts strongly with that of the UASs and the UTEs.

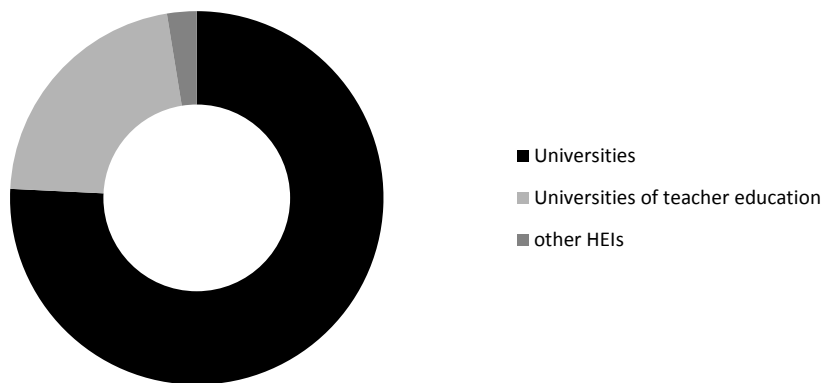
**Figure 10.16: Qualification of academic staff at UAS and UTEs (2011)**



Data: FSO

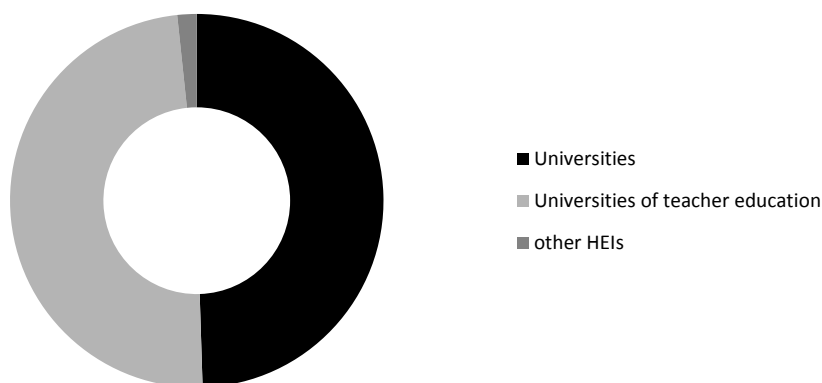
## 10.6 Third party project funding by the SNSF

The above relatively small research profile of the universities of teacher education (UTEs) finds its correspondence when we look at their capacity to acquire third party funds from the Swiss National Science Foundation (SNSF). Between 2008 and 2011, the UTEs only acquired about one-quarter out of the general project funding for educational sciences by the SNSF. And this amount of roughly CHF 2.5 million was distributed unevenly among only some of the UTEs (see Figure 10.19). It seems that fund-raising for research is still quite a challenge for UTEs.

**Figure 10.17: SNSF funding in educational sciences by HEI sector (2008-11)**

Funding of approved projects (only general project funding); Data: SNSF

However, in the development phase between 2004 and 2011, the SNSF provided a special funding scheme for the UASs and the UTEs called DORE (DO REsearch). This programme was conceptualized to fund practically oriented research at UAS and UTE. It was very successful, and funded numerous applied research projects in the fields of social work, health, education, the fine arts, applied psychology and linguistics.<sup>133</sup> If this funding is taken into account, the UTEs taken together were as successful as the university departments in acquiring SNSF funds for educational research (see Figure 10.18).

**Figure 10.18: SNSF funding in educational sciences (including DORE) by HEI-sector (2008-11)**

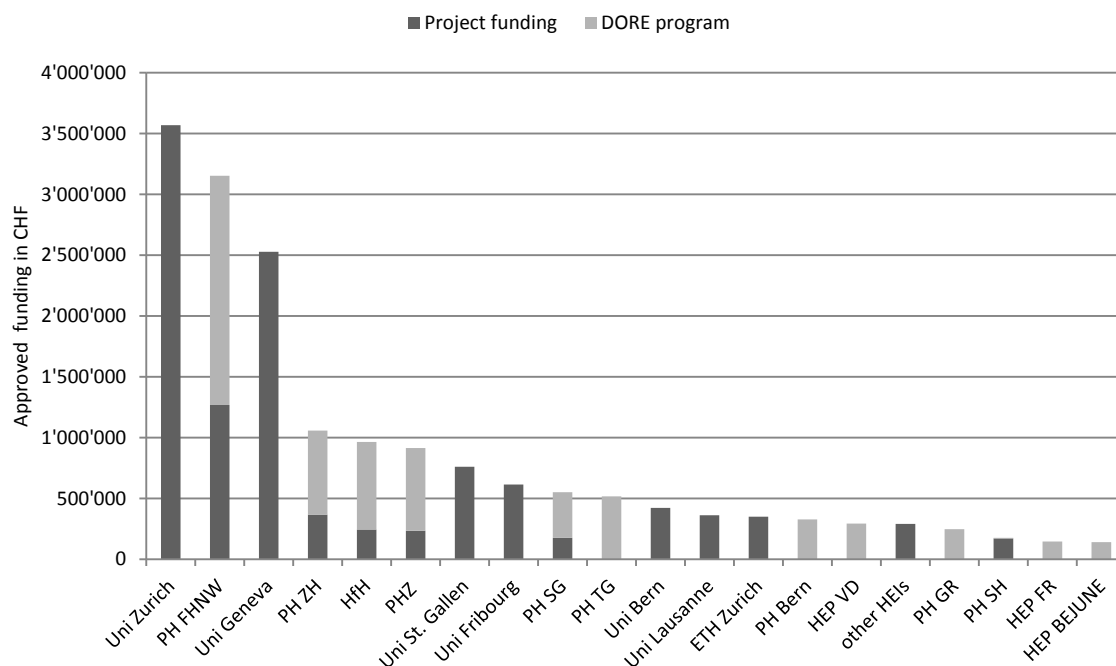
Funding of approved projects (including DORE)  
Data: SNSF

Regarding research intensity measured by SNSF funds in educational sciences, there is one UTE which figures among the two big university departments Zurich and Geneva: PH FHNW. Apparently, this UTE is very successful in the grant competition. Even without counting DORE-funding, this UTE figures well above all other UTEs and has acquired more funding than most other university departments (see Figure 10.19). In other words, the PH FHNW

<sup>133</sup> <http://www.snf.ch/E/current/Dossiers/Pages/DORE.aspx> [accessed: 24.2.2013]

easily rivals most of the education departments of Swiss universities. However, the average UTE is far from this type of research intensity and has difficulty securing any regular project funding from the SNSF.

**Figure 10.19: SNSF funding in educational sciences by HEIs (2008-2011)**



Funding of approved projects (including DORE); Data: SNSF

## 10.7 Summary

Concluding from this brief statistical description of the different segments of the higher education system, it can be said that there is a sizeable difference between the university and the non-university sector as to the relation of teaching vs. research. Although the UASs as well as the UTEs have their own research mission, their focus lies in teaching and occupational education. Research activities at either UASs or UTEs seem still to be under way. This different profile is also expressed in a different institutional setting. The differences are more pronounced between universities and non-university institutions. Thus, based on the above description, the higher education system can still be delineated along the binary divide between university and non-university sector, with the latter comprising both UASs and UTEs.

It is characteristic of the non-university sector that both UASs and UTEs recruit different academic personnel and attract a different student body. The academic staff at UAS and UTE does not have similar qualifications as university personnel. Universities of applied sciences (UASs) and universities of teacher education accept a wider and in particular more heteroge-



neous student body than the conventional universities. Besides students with a professional baccalaureate, the UASs recruit a significant proportion of high school graduates with a general baccalaureate, in particular for the humanities, the social sciences and the fine arts. The UTEs in turn, recruit up to one-third and more of students with other certificates than the general baccalaureate. Consequently, this different intake in terms of human capital of staff as well as to the students' qualification affects the structure and content of teaching and education.

Further, the characterization of the student body revealed significant heterogeneity within HEI-sectors. There are some large UASs and UTEs – equalling universities or at least disciplinary departments regarding the number of students or research emphasis – besides very little schools that are somehow difficult to describe as institutions of higher education.



## 11 Dynamics of actor and system structure

### *Introduction*

As we have seen in the previous chapter, the reform of teacher education and the creation of the UTEs was mainly driven by the EDK on the basis of the regulation of occupational diplomas. The whole development was very sector-specific, i.e. it took place within the subsystem of teacher education without clear reference to the higher education system. The cantonal Ministers of Education decided that teacher education would henceforth be organized at the tertiary level at either universities, universities of applied sciences or at specific HEIs, called universities of teacher education (UTEs). These latter were to be conceptualized using the model of universities of applied sciences.<sup>134</sup> However, it was left up to the cantons to decide how they wanted to reform their institutions of teacher education and what form of HEI they wanted to choose. The majority of the cantons chose to set up their own UTE, possibly in cooperation with other cantons. However, the concept of a university of teacher education was understood essentially thematically and with regard to content, not as a new formal category of HEIs. Structural and systemic issues were hardly discussed. In other words, it was clear from the beginning that one wanted UTEs before having clarified what type of HEIs the new institutions of teacher education should be and where these UTEs were to be positioned within the higher education system. Forneck, (2011) discussing the profile of the UTEs, explains the specific form the UTEs represent with the long tradition of cantonal teacher education and the internationally driven extension of the higher education sector. These two driving forces, as his argument goes, are the basis of the typical problems and contradictions the UTEs have to deal with today:

Der Hochschultyp selbst zeichnet sich dadurch aus, dass er zwei disziplinäre Sichtweisen, nämlich Pädagogik und Fachdidaktiken, als Kernkompetenzen in das nationale Hochschulsystem einbringt. Er ist somit das Resultat einer in der Schweiz ausdifferenzierten langen kantonalen Tradition der Lehrerinnen- und Lehrerbildung einerseits und einer international vorangetriebenen Ausdehnung des tertiären Sektors andererseits [...]. Insofern erstaunt es auch nicht, wenn in diesem Hochschultyp Tradition und Modernisierung, Regionalisierung und Internationalisierung als interne Problemlagen wieder auftauchen und ganz wesentliche Determinanten [...] der inneren Strukturentwicklung Pädagogischer Hochschulen darstellen. (Forneck 2011: 40)

In the case of the universities of applied sciences, the reform policy was conceptualized at the national level on the basis of the federal competencies in VET. Consequently, there was a consistent view of the entire higher education system. With teacher education, however, such a

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<sup>134</sup> Cf. the explanation of a member of the management of a UTE : « Et je crois qu'en 1995, la CDIP a dit : On va tout de suite les [écoles normales] mettre quelque part au niveau tertiaire. Puis on a pris les HES puisque ce n'était pas tout à fait universitaire. Là-dessus on a fait marche arrière » (RESP 046, 4).

federal legislative basis does and did not exist. As a result, a view of the higher education system as a whole was lacking. But since the UTEs have been defined as being part of the higher education system, teacher education had to be integrated into the system.

In the following part, I shall thus analyse structural aspects of the reform of teacher education using the analytical framework presented above (see chapter 5.3). The focus now lies on the systemic aspects of the integration of teacher education in the higher education system. How does the subsystem of teacher education adapt to the new research function? And how do the UTEs implement this function on the organizational level? How do the key players act within the system? What specific actor constellations can be identified, and how do they affect the system integration? The analyses are based on official documents as well as expert interviews with key actors in the field. These are usually representatives of corporate actors of organizations, associations, policy-makers and researchers. The organization specific analysis is complemented by case studies of four UTEs.

## **11.1 Divergent cognitive orientations and cultural paradigms as to teacher training**

Subsequently, system-specific cognitive orientations within the teacher education system shall be identified, starting with the description of the situation of traditional teacher education before the introduction of a research mission followed by a discussion of new approaches and concepts of a research based teacher education. Thus, the inherent conflict between the two perceptions will become obvious. As exposed in the theoretical part (cf. chapter 5.3, p. 71), different normative orientations can overlap within subsystems (Donges 2002). Accordingly, besides the dominant perspective of the school system, in the subsystem of teacher education we can find other orientations such as the perspective of the science system.

### ***The school-system based perspective***

A relatively strong orientation of the school system is still predominant within teacher education. This is geared to the classical mission of training teachers for the schools based on a set of practical skills and endowed with the necessary subject knowledge. For a long time, this understanding has been the only concept of teacher education and has deeply influenced the whole sector. Since the majority of the teacher educators were school teachers recruited from the field, their principal orientation was the school practice of their future students. Thus, research activities had no tradition.

Until the beginning of tertiarization, research as a specific activity of its own had virtually no place in traditional teacher education.<sup>135</sup> Knowledge was rather dogmatic and was strongly focussed on user expectations; knowledge in teacher education was basically know-how, knowledge from personnel experience (Oelkers 1998). As Oelkers saw it, the problem with this sort of knowledge was the strong expectation of a direct transfer from knowledge into practice. Consequently, praxis orientation and concrete teaching in teacher education meant an orientation to simple, idealistic models of schooling that could be handled by the student teachers and the novices. Therefore, any objective body capable of reflection and critique did not exist and was not provided. Research could have been such a critical body in teacher education (Oelkers 1998: 19).

Einfache Schemata, die mit einfachen Theorien verbunden werden, sorgen für einen vermutlich recht effizienten Transfer in der Situation von Novizen. [...] Wenn überhaupt, dann werden Theorien eklektisch genutzt, nach ihrem Verwendungswert, nicht nach ihrem Wahrheitsgehalt, der nicht geprüft werden kann, sondern vorausgesetzt werden muss. (Oelkers 1998: 22)

This traditional culture in teacher education and its mental basics have persisted over time and still seem to be – at least partially – characteristic of general teacher education in Switzerland. Thus, the former director of a UTE reaches more or less the same conclusions as those cited above, yet stated in 2010, ten years after the beginning of the tertiarization of teacher education:

Après dix ans d'existence, il faut reconnaître que les HEP restent encore principalement des institutions politiques cantonales et non des institutions scientifiques. [...] La plupart des HEP restent des institutions artisanales, c'est-à-dire fondées sur des routines, des savoirs d'expérience, des savoirs locaux issus des terrains scolaires, des croyances personnelles rarement discutées de manière critique. À tous les niveaux, leurs directions demeurent trop souvent mal informées des perspectives et travaux récents issus de la recherche internationale en éducation, en psychologie, dans les TICE, etc. Le poids de la recherche dans les institutions reste faible, non seulement en tant que «secteur» spécifique, mais aussi sur le plan du pilotage institutionnel qui résulte trop souvent de demandes politiques locales à très courte vue. (Tardif 2011: 18f.)

The development of teacher education over the past 20 years shows that the scientific and research orientation has always been rather neglected and still is. Research still has a rather majoritarian position in teacher education. The education and training of the teachers for the primary level has always been dominated by the educational function. The traditional approach to teacher education was characterized by the belief that the training of teachers primarily meant the education of the personality and that experienced teachers would be best suited to training the novices and showing them what works best. According to Tardif, the culture in

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<sup>135</sup> „Lehrerbildung hat bislang kaum eigene Forschung betrieben und auch kaum Forschung nötig gehabt.“ (Oelkers 1998: 18)

teacher education reflected the dominant cognitive and normative orientations among the teaching profession, characterized in particular by a certain reluctance to adopt a research-based approach to teaching:

La culture des HEP est le reflet de la culture de la profession enseignante en Suisse. La majorité des enseignants semble relativement éloignée de la culture scientifique dans leur domaine. Ils surestiment le savoir d'expérience et privilégient les compétences disciplinaires au détriment des compétences professionnelles. Trop d'enseignants professent une faible estime de la formation, en croyant que l'enseignement s'apprend sur le tas et relève de la personnalité, de la passion, de la vocation, etc. Par ailleurs, on observe dans les établissements scolaires du primaire et du secondaire 1 et 2 un refus de l'évaluation des pratiques enseignantes. Tout cela dénote une absence d'éthique professionnelle formelle, sans véritable déontologie encadrant les actes (Tardif 2011: 20).

In view of this cultural normative and cognitive background of traditional teacher education that has been widely shared among the profession as well as in the public opinion, it is clear that any attempts to argue for substantial reforms in the cognitive approach to teacher education and to introduce a scientific orientation and a research culture were bound to meet with considerable resistance and opposition, as such a paradigm shift was perceived as a threat to the existing system-specific identity and normative orientation among key actors. Furthermore, the need to introduce research in teacher education and to provide a scientific basis for teaching was even more hotly disputed by the political actors, the teachers in the field and the general public.<sup>136</sup> In the discussion of the mission statement by the cantonal directors of education, several voices underscored the risk that the new approach to teacher education with the creation of universities of teacher education could be rejected by the general public as being too academic: as one minister explained, the public would be reluctant to accept academic teacher training:

Dabei muss vorsichtig argumentiert werden und der Praxisbezug des neuen Ausbildungswegs betont werden, denn im Volk wird die akademische Nähe kritisiert.<sup>137</sup>

Similarly, several stakeholders that took part in the consultation process criticized the academic orientation of the new UTEs:

Die wesentlichen Kritikpunkte in den Antworten zum Dossier 24<sup>138</sup> gehen dahin, dass ein übertriebener Bezug auf die Wissenschaftlichkeit der Lehrerbildung vorherrschend oder gar falsch sei; dass eine zu übertriebene Verakademisierung der Lehrerbildung zulasten der charakterlichen und menschlichen Fähigkeiten der Studierenden zu erkennen sei.<sup>139</sup>

<sup>136</sup> At every stage of the development of a new legal basis for teacher education at the tertiary level, fears were expressed that teacher education would become too academic and too intellectual and would lose its rootedness in the reality of the schools.

<sup>137</sup> EDK: Protokoll der Jahresversammlung vom 28./29. Oktober 1993.

<sup>138</sup> See EDK (1993b).

<sup>139</sup> EDK: Auswertungsbericht zu Thesen Pädagogische Hochschulen. Vorschläge für das weitere Vorgehen, Bern, 1994.

This critique of the academic and scientific orientation within teacher education, although representing quite a general and prevalent reservation towards the new conception of tertiary teacher education, primarily stems from rural cantons with a long tradition of teacher colleges at the upper secondary level and from representatives of agencies for continuous teacher education – both representing instances whose existence is threatened by the new UTEs.

### *The research-based approach to teacher education*

However, the scientific perspective and the research orientation incorporate another rationale. As I have demonstrated in the above section (see chapter 5.3), this logic is based on the assumption that professional action by teachers requires scientifically based skills and competences as to teaching, educating and making diagnoses (see, for instance, Reusser 1996; Einsiedler 2000; Terhart 2000). Research and science are understood not just as further source of information but as an inherent practice of teacher educators. Behind this conception lies a different understanding of the teaching profession as a research-based practice that is in continued exchange with the research production.

Professionelles Handeln im Sinne einer flexiblen und verantwortungsbewussten Problemlösefähigkeit erfordert eine wissenschaftliche Basis. [...] Wissenschaftlichkeit der Ausbildung heisst auch, das eigene implizite Berufswissen mit disziplinärem Wissen zu konfrontieren und dadurch zu überprüfen bzw. zu erweitern (Forneck et al. 2009: 79f.).

Furthermore, it is argued that for UTEs, although they do have a professional function, their scientific research function is vital for their existence as institutions of higher education. Only by participating in the production of research will they will fulfil their role as institutions for training teaching professionals. UTEs have to strike a balance between the two cognitive orientations, the scientific and the vocational orientation, as a representative of a UTE argues:

Si les HEP ne participent pas en tant qu'institution universitaire à la fabrication des savoirs dans et sur l'éducation, elles n'ont pas leur fonction. Ça ne peut pas être que des écoles professionnelles. Il faut qu'elles aient ces deux. C'est délicat quand on est à mi-chemin entre deux logiques, on penche souvent d'un côté ou de l'autre. Une HEP est quelque chose d'extrêmement difficile à piloter parce qu'elle est constamment entre ces deux logiques. Logique du détachement de l'université. C'est une logique pas une réalité. Les universités ont aussi des fonctions de professionnalisation. Une logique de formation des professionnels qui n'est pas non plus une logique pure parce qu'elle implique aussi quand même à contribuer à la fabrication des savoirs, même si c'est dans les domaines de la technique et de la science appliquée, plus que de la science fondamentale. (RESP 046, 4)

*Representative of UTE*

As a consequence, teachers must be trained at the tertiary level, not at vocational schools like craftsmen. In this argumentation, the teaching activity needs a scientific background supported

by practice-relevant research. Thus, the UTEs represent the scientific reference of the school system. They draw their function and competence primarily from the scientific approach to teaching and learning, not from an idealistic understanding of a master competence in teaching. The teaching practice is understood as being part of another system, the school system. Teacher education would therefore need to realize a balancing act between the scientific system and the school system, constantly aware of this functional differentiation:

Eine Pädagogische Hochschule gewinnt keine Autonomie, indem sie sich als die bessere Praxisinstitution versteht. Die Praxisinstitution der Pädagogischen Hochschule ist die Schule. Die wissenschaftliche Institution der Schule ist die Pädagogische Hochschule. Nur in dieser funktionalen Differenzierung rechtfertigt sich die Autonomie der Hochschule, nur in dieser funktionalen Differenzierung manifestiert sich ein angemessenes Professionsverständnis, nur in dieser funktionalen Differenzierung lässt sich eine sinnvolle Kooperation zwischen Hochschule und Praxis gewinnen. (Forneck 2009a: 253)

The primary function of research in teacher education would be to train future teachers to a scientific reasoning and to provide them with evidence-based knowledge on teaching; i.e. to respond to questions such as what works and what does not. Yet, this research-based approach does not remain unchallenged. Teacher education is still far away from a broad consensus that scientific evidence should be the basis of the teaching practice.<sup>140</sup> But more and more actors recognize that research is important for legitimating reasons.

To conclude, we can summarize that research at institutions of teacher education has a threefold function: first, research has the function of legitimizing the positioning of the UTEs at the tertiary level; second, research has a quality function insofar as teacher educators who are actively involved in research will have better and direct access to the development of the discipline and they can further benefit from the constant scholarly exchange through the publication of their research (cf. EDK 1993b: 24); and third, the involvement of students of teacher education in research projects will socialize and familiarize them with the scientific system and eventually bring them to regularly consult relevant research.

The dilemma of the institutions of the non-university sector is to reconcile these two perspectives: the occupation-specific and practical orientation as well as the scientific perspective. Yet this represents the very own challenge of this sector of the higher education system –

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<sup>140</sup> Similarly, some thirty years ago, research and scientific evidence were rather neglected in health care when pioneers such as Archie Cochrane called attention to the question of effectiveness and efficiency in health care and argued in favour of basing health-care decisions on systematic empirical evidence (Sackett et al. 1996; Cochrane 2004). Only gradually, did this understanding gain acceptance and become common standard in medicine. Today, the Cochrane Collaboration, an international network, provides systematic reviews on the efficacy of medical treatments for use by practitioners (cf. <http://www.cochrane.org/>).



finding a way of dealing with the divergent claims of either praxis as well as science and developing a specific type of HEI.<sup>141</sup>

## 11.2 Institutional context

### *Organization and profile of the UTEs*

The institutional setting and organizational structure define the actors' room for manoeuvring. The actors within the higher education system are institutionally organized within service organizations such as the different HEIs, within political bodies or coordinating organizations such as the several sector associations. All these actors have different organizational structures, different rights and competences, different resources and enjoy different degrees of autonomy. For the analysis of interactions within the higher education system, it is important to give an account of this institutional setting.

Key parameters within this setting are the dominance of the cantons within higher education and the binary divide differentiating between the classical universities (including the ETH) and the non-university sector comprising the UAS and the UTEs. The cantons have a dominant position as principal financier and owner of the HEIs. The HEIs are governed by cantonal law although the existence of a regulative framework at the federal level. Assignment to one of the two sectors within the binary structure entails far-reaching implications as to funding, organization, and institutional prerogatives.

According to the official policy, the UTEs – together with the UAS – are part of the non-university sector. But this view is not shared by all actors involved. In the view of the UTEs, the fact that they are mentioned separately in the new higher education Act (HFKG) is evidence that they represent a third and independent type of higher education institution. Consequently, they are now calling for a third chamber within the new Rectors' Conference. The rector of the PHZH thus states:

Aus der Sicht der pädagogischen Hochschulen ist die nachträglich erfolgte Aufführung im Gesetz als eigenständiger Hochschultyp ein zentraler Aspekt. Denn dies bedeutet, dass die pädagogischen Hochschulen in einer noch zu definierenden Kammer der Rektorenkonferenz vertreten sein werden und dass sie den gleichen institutionellen Akkreditierungsrichtlinien unterliegen wie die Universitäten und Fachhochschulen. (Bircher 2011: 362)

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<sup>141</sup> On this issue, the president of the Federal Commission of the universities of applied sciences states in a stock-taking interview that the UASs up to now did not really succeed in finding their own culture of HEIs between science and praxis: Die Fachhochschulen kamen bis heute nicht dazu, "im Spagat zwischen Wissenschafts- und Praxisansprüchen eine unverkennbare, eigene Hochschulkultur zu erarbeiten" (quoted in Aargauer Zeitung, 4.10.2012).

It will be necessary to clarify the institutional settings and the governance of the COHEP in the light of the new Act. The COHEP, as a conference of rectors of UTEs, has so far been a specific conference of the EDK, but with the new governance structure of the HFKG with joint bodies by the Confederation and the cantons at the national level, this close relationship with the EDK must be relaxed to give the COHEP greater autonomy. However, the problem of the two political governance regimes – cantonal vs. federal – will remain. It is not clear for the moment how to resolve the problematic constellation that rectors of UTEs that are integrated into UASs will formally be subordinated to the respective rectors of the UASs but as members of the COHEP they would be entitled to join the new conference of all HEIs' rectors.<sup>142</sup> However, Bircher (2011) also concedes that different UTEs for the moment are too heterogeneous, a factor that is not very helpful for the establishment of a common independent type of HEI:

Die pädagogischen Hochschulen weisen gegenwärtig zu heterogene Strukturen auf – eine Etablierung als eigenständiger Hochschultyp, der im HFKG allenfalls mit besonderen Ausdifferenzierungen integriert werden kann, bedarf weiterer schweizweiter Harmonisierungen. (Bircher 2011: 383)

The UTEs have always been institutions of the cantons. Yet with the adoption of the new Federal Act on the Promotion and Coordination in Higher Education (HFKG), the UTEs are becoming part of the national higher education system. In this new role, the new organs of the Confederation and the cantons responsible for higher education will have to define the specificities, profiles and role of the UTEs. In this respect, it is clear for the COHEP that the UTEs are neither pure occupational schools nor pure academic universities (cf. RESP 031, 2). The UTEs will always have a mission to train teachers for the school system and to also take care of occupation-specific aspects. In other words, they explicitly define themselves as being one actor of the education system, and will therefore have to cooperate with the other actors of the education system, i.e. with the schools, the school administration, the government, the teachers' associations, etc. But they are also aware that they need to cooperate with the other HEIs, with the universities and with the UASs. With the universities, in particular, this cooperation is vital in the field of the disciplinary education of the future teachers, further in subject-related didactics but also as to doctoral education, since the UTEs do not have the right to award doctoral degrees.

The differentiation into a university and a non-university sector with the formal assignment of the UASs and UTEs to the latter and accordingly the restriction of doctoral pro-

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<sup>142</sup> In this regard, the president of the COHEP points to the fact that this is just the case for one of the major UTEs in Switzerland and that this would result in the paradoxical situation that rectors of very small UTEs would be entitled to become members of the general rectors' conference, whereas this would not be possible for a large UTE integrated into a UAS such as the PH FHNW (cf. RESP 031, 46f).

grammes to the university sector still seems to be constitutive in higher education policy despite pressure from the UASs and UTEs. The policy side always wished to separate the UASs from the universities. This applies *mutatis mutandis* to the UTEs as well. It was a political will to assign a different function to the UASs and thus to differentiate the higher education system into a university and a non-university sector. Hence, despite the programmatic postulate of different but equal value, the difference has always played a far more important role:

Die Gleichwertigkeit wird im politischen Diskurs nach wie vor nicht so locker gesehen. Es ist die Andersartigkeit, die im Zweifel betont wird, um die besondere Funktion die man den FHs zugeordnet hatte in Relevanz zum Berufsbildungssystem hochzuhalten und seine Durchlässigkeit. Diese spielt im ausschlaggebenden Moment immer noch eine starke Rolle (RESP 021, 7).

*General Secretary of the EDK*

Regarding the status of the occupational diploma, the UTEs have reached equality. In terms of the professional degree, the diploma for teaching in primary or in secondary or for any other category of teacher, the degree is equivalent whether it has been earned at a UTE, a UAS or a university. This is however not the case for the academic degrees. Here, the type of HEI counts. This illustrates once again the two sides of the policy in teacher education: the occupation-specific training of the teachers where the cantonal education ministries and schools want to have a say, vs. the academic degree delivered by a specific institution of higher education.

Closely linked with the typological ascription is the issue of the doctorates. In the Swiss higher education system, the right to award doctoral degrees is reserved for the university sector. The universities of applied sciences (UAS) and the universities of teacher education (UTE) do not grant doctorates. The UAS were established in order to offer vocationally oriented higher education programmes and to train graduates from the vocational sector at the tertiary level. Since the non-university sector has always been introduced in addition to the existing HEIs and with a specific and different profile, they were also characterized by different degrees. As a rule, the regular degree at UASs is the Bachelor conveying a general occupational qualification. With the revision in 2005, the UASs can also offer Master programmes. But doctoral education is not part of UAS programmes.<sup>143</sup>

Traditionally, teacher educators are former teachers with a specialization or a further qualification, thereby ensuring the link to school practice. But with the increasing qualification requirements for the teaching personnel at the UTEs, this dual qualification becomes difficult

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<sup>143</sup> However, with the Bologna Declaration, differentiation of degrees by type of HEI became somehow blurred, for all types of HEIs now award B.A. and M.A. degrees. But the titles still have a different status, whether they have been earned at a university or at a UAS, as reflected by the fact that the academic universities do not accept a B.A. from a UAS as being equivalent to the University B.A.

to realize. Furthermore, since the UTEs cannot offer doctoral programmes, they are limited in hiring research assistants. In addition, the scientific background of the typical teacher educator is rather limited:

La majorité des formateurs des HEP semble relativement éloignée de la culture scientifique: valorisation du savoir d'expérience, faible connaissance des théories et démarches scientifiques dans leur propre champ d'enseignement, attitudes fréquemment conservatrices face aux innovations pédagogiques et institutionnelles. [...] La carrière professorale est trop peu hiérarchisée et ne comporte pas d'étapes claires avec des récompenses. Elle reste trop près du modèle de l'école secondaire. (Tardif 2011: 19)

This institutional characteristic of the non-university sectors and the traditional careers of the teacher educators from practice to teacher education resulted in the current structure of personnel at the UTEs. As a rule, the teacher educators have some years of experience as teachers in the school system and have acquired an academic degree. The percentage of those holding a PhD is quite low compared with other HEIs. Consequently, scientific knowledge and research capacity are limited,<sup>144</sup> and teaching at UTEs becomes quite expensive when there are only a few assistants employed. This being so, most respondents confirmed that it is difficult to recruit personnel with the ideal profile, i.e. qualification as a teacher, experience in the school system and an academic scientific qualification. On the other hand, the assignment of the UTEs to the non-university sector makes them less attractive for scholars to be recruited as professors in teacher education (cf. RESP 032, 22). Generally, this institutional restriction – the lack of third cycle programmes at the UTEs – is perceived by representatives of the UTEs as being an important obstacle to their academic development.

## 11.3 Actors' strategic options and actor constellations

### 11.3.1 The UTEs struggle for status

According to actor-centred differentiation theory, individuals are constrained by system-specific normative orientations, the institutional setting and the concrete actor constellations. Actor constellations result from the interplay of different actors and actor groups. The type of

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<sup>144</sup> In an article representing the unions' view of the situation of the researchers at the UASs, the author describes their status as researchers with precarious insecure status („prekarierte Selbständige im Anstellungsverhältnis“). However, at the same time, the author admits that researchers at UASs lack the methodological knowledge and research experience required to meet the required standards for research proposals and to acquire third party funds: “[...] sie [die Forschenden] können zwar oftmals auf Hochschulabschluss und Praxiserfahrung zurückgreifen, aber nicht auf Methodenwissen und Forschungserfahrung. Das macht es schwierig, Projektanträge effizient zu erstellen, Qualitätsstandards zu erfüllen, Forschungsprojekte realistisch zu planen und zum Schluss das angestrebte Forschungsprojekt erfolgreich zu akquirieren“ (Müller et al. 2009: 9). But it is precisely these qualities which are crucial for researchers at a HEI. If the UASs want to be positioned on a par with the academic universities, there is no alternative to improving the performance of their research units and recruiting more qualified researchers.

actor constellations defines options and restrictions for strategic action within the system of higher education. As a consequence, actor constellations affect the outcome of the strategic game of the actors involved. In teacher education, the most controversial issues are the typological ascription of the UTEs, and linked with this question, their position and status, and the question of doctorates.

According to the thesis of academic drift (cf. Clark 1983; Neave 1983), the universities of teacher education (UTEs) will try to assimilate the academic universities. As long as the different status and function of the non-university sector is constitutive of the differentiation in the Swiss higher education system, the UTEs have an incentive to distinguish themselves from the UASs and to drift towards the university sector. Among the UTEs, the opinion prevails that they are rather hindered in their development as HEIs if they are treated as formal universities of applied sciences. Representatives from the UTEs argue that in a functionally differentiated system, teacher education which alone comprises already more than a dozen subjects should be a type of HEI of its own. And without this recognition as a third and separate type of HEIs, teacher education would not be able to fulfil the mission of professionalization of teacher education (cf. RESP 032, 7f.). The UTEs' principal strategy is therefore to consolidate their position as tertiary institutions and to gain generally acceptance as a third and independent type of HEI. They want to overcome the binary divide and their assignment to the non-university sector.

At the occasion of a stock-taking symposium by the COHEP in 2008, the representatives of the UTEs recorded the successful process of tertiarization in teacher education, the establishment of research and development, and research-based teaching. The goals that had not been achieved at the time were a higher degree of autonomy as HEIs, the establishment of professorships in pedagogical content knowledge (Fachdidaktik-Lehrstühle), and the promotion of the academic careers of mid-level faculty. Consequently, the following goals were set for the development within the next ten years: the further qualification of the teacher educators, the development of the academic profile of the UTEs including the right to award doctoral degrees, and the enhancement and clear profiling of research (Stadelmann 2010: 94).

Three years later, the COHEP stated in its strategy for 2012-16<sup>145</sup> the goal of becoming an independent type of HEI, to be the recognized partner of the practice and politics in education, to introduce a vertical structure of the teaching personnel, including mid-level faculty and the right to award doctoral degrees, and to enhance a systematic link between research and teach-

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<sup>145</sup> Cf. Strategie COHEP 2012-2016, verabschiedet von der Mitgliederversammlung COHEP am 16./17. November 2011, <http://www.cohep.ch/de/publikationen/dokumente/> [accessed, 29.8.2012].

ing. As its medium-term goal, the Conference declared accreditation as autonomous higher education institutions, on a par with universities and UASs<sup>146</sup>:

Mittelfristiges Ziel der Pädagogischen Hochschulen ist ihre Akkreditierung innerhalb der Bestimmungen des künftigen HFKG als eigenständige Hochschulen, die mit Universitäten und Fachhochschulen gleichwertig sind. (Stadelmann 2010: 94)

The position that the UTEs should represent an independent third type of HEIs is broadly shared among all representatives of the UTEs. They claim that the UTEs represent a third type of HEI and that this fact must now be accepted (cf. RESP 030, 2). They argue on the basis of different forms of governance and funding as well as a different student profile (cf. RESP 040, 6; RESP 027, 6):

[...] c'est un troisième type de haute école. Ça n'est pas des universités, ça n'est pas des HES parce que dans les deux cas le système de financement le justifie et le type d'étudiants est très différent de celui des HES. [...] un tiers de nos étudiants sont en études postuniversitaires, ce qui est radicalement différent des HES. Et puis le financement est différent, le rapport au système de formation et d'enseignement est différent. Il me paraît justifié de faire un troisième type, même si quantitativement évidemment il est beaucoup plus petit. (RESP 040, 6)

*Member of the management of HEP VD*

Furthermore, the ascription to a third type of HEIs is justified by the dual mission of the UTEs, namely occupational training as well as the academic research-based study, which would be constitutive for this institutional type. Accordingly, the UTEs are characterized as being a “hybrid” type of HEIs belonging to both the occupational sector and the academic sector.

La HEP c'est une haute école du troisième type. C'est une haute école hybride, entre une université et une HES. HES est du côté professionnalisant, puisque l'objectif des HEP est de former à la profession des enseignants. Et université académique parce que pour nous il est essentiel de pouvoir renforcer tout l'aspect recherche, recherche développement, recherche appliquée, recherche fondamentale. [...] Donc, c'est une haute école à vocation professionnalisante mais en même temps fondée sur un paradigme que je dirais universitaire. (RESP 039, 2)

*Senior official, Ministry of education, Canton Vaud*

The UTEs generally tend to see themselves as closer to the classical universities; they compare teacher education with the medical or the law school (RESP 036, 26). But such arguments ignore that the academic training for these professions lasts about twice as long as the primary school teachers' training at a UTE and that the professional training for physicians or lawyers

<sup>146</sup> See also the COHEP's position regarding the new Act on higher education: The COHEP insisted that the law explicitly refers to the UTEs as a third and independent type of higher education institution: Allerdings wünscht die COHEP dringend [...], dass im Geltungsbereich (Art. 2) die Pädagogischen Hochschulen explizit genannt und nicht unter „einschliesslich“ abgehandelt werden. [...] Für die Pädagogischen Hochschulen ist es unabdingbar, diese nicht als „einschliesslich“, sondern als eigenständigen Hochschultypus zu nennen. (Stellungnahme der COHEP zum Bundesgesetz über die Förderung der Hochschulen und die Koordination im schweizerischen Hochschulbereich, 21.1. 2008).

comes after the university studies, whereas teachers finish their complete training at the UTE with a professional licence allowing them direct career entry. In this regard, the UTEs' position is supported by the teacher associations, which generally pursue the strategy of enhancing the teachers' status. Although the individual teachers are not pushing for further academization of teacher training (cf. RESP 038, 3), the teachers' professional associations have a clear preference for further academization. They have an interest in upgrading the UTEs, since the status of the degree in academic terms affects the general prestige of the teaching profession:

Nous, de toute manière, en qualité d'association professionnelle, plus le niveau reconnu des études sera élevé, meilleur ce sera. [...] Donc nous, à terme, qu'on ait pour l'ensemble des enseignants un niveau de master réel académique, en imaginant une véritable faculté de pédagogie qu'on pourrait comparer ou imaginer un peu comme une faculté de médecine, eh bien évidemment cela serait un plus. (RESP 051, 10)

*Representative of the teacher association Canton Vaud*

On the other hand, the professional associations – being aware of the teachers' rather practical interest – also claim that the study programmes are practically oriented and take sufficient account of the school reality. In fact they claim both, the high academic status of the study and the occupation-oriented, practically-based teaching (cf. RESP 029, 14). This contradicts of course the strategy for further academization but it shows the dilemma of teacher education to be torn between the two paradigms; the scientific approach and the practice-based profile.

However, this is not the understanding of the policy-makers. The Conference of the Education Ministers does not accept the arguments put forth by advocates of a third type of HEI. Neither the fact that the UTEs require the general baccalaureate, nor the fact that the universities also offer professional study programmes, nor the fact that they are not under federal law were good reasons to consider the UTEs as a different type of HEIs. The EDK is very clear on the question of the typology: “The universities of teacher education are universities of applied sciences”, thus the decisive statement by the EDK's general secretary (cf. RESP 021, 2):

Die PHs sind Fachhochschulen. Diese Typologie hat die EDK bis heute nie geändert. [...] Ich bin überzeugt: Wenn wir die Frage der Typologie heute in der Planarversammlung stellen würden, würde das mehrheitlich wieder so beantwortet werden. Grund dafür ist, dass die typologischen Merkmale, die für die Fachhochschullogik sprechen, überwiegen. Das fängt bei den berufsbefähigenden Ausbildungen an. Da ist die Tatsache nicht sehr einschlägig, dass es diese an der Uni auch gibt, denn für die Uni ist es eben nicht typisch. Und die Uni kann das auch nicht. Sie kann insbesondere nicht Lehrer ausbilden. Das ist auch einer der Gründe, warum man überhaupt diesen Typ bei der Tertiärisierung so gelegt hat [...]. Die PHs sind für uns typologisch Fachhochschulen, weil sie wissenschaftlich gestützte Berufsstudiengänge mit einer Berufsbefähigung [anbieten]. [...] Man hat das auch ganz klar in der politischen Argumentation verwendet gegen die Verakademisierung. (RESP 021, 2)

*General Secretary EDK*

Concerning the fact that the UTEs are exclusively ruled by cantonal law whereas the UASs are governed to a substantial extent by federal law, the general secretary of the EDK explains that this does not represent any categorization in terms of HEI typology. This setting, he explains, is just an “institutional configuration” (RESP 021, 2). And also the new Act on Higher Education (HFKG) would not have created a new HEI type for the UTEs either. The fact that they are mentioned separately was only due to the different legislative framework (cantonal for the UTEs, federal for the UAS):

[...] das ist nichts anderes als eine institutionelle Konfiguration. Das ist noch keine Antwort auf die typologische Zuordnung. Es kam nie zu einem abweichenden formellen Entscheid. Im Gegenteil: Mit dem HFKG hat man nicht einen separaten Typ geschaffen, sondern da wo die PHs separat aufgeführt sind, rechtsetzungstechnisch, ist das nötig, weil sie sich eben nicht mit den FH zusammen in der Bundesmitsteuerung befinden. Das hat nie bedeutet, dass man damit einen separaten Typ schaffen will [...]. Die Tatsache, dass man in Zürich eine eigenständige Institution Kunst- und Musikhochschule hat, die nicht integriert ist in die ZHAW, das führt auch nicht dazu, dass diese typologisch etwas anderes sind als FHs. (RESP 021, 2-4)

*General Secretary EDK*

With this interpretation, the general secretary of the Conference of Cantonal Ministers of Education obviously disagrees with the interpretation by the representatives of the UTEs. Consequently, the institutional framework for the UTEs will rather be described by the UASs, i.e. by the non-university sector and therefore, the attempts by the UTEs to obtain the right to award doctoral degrees, will have to be coordinated with the UASs. Furthermore, the fact that the UTEs are now also covered by the Federal Act on Higher Education makes any separate initiatives on the cantonal level rather impossible, thereby considerably limiting the room for manoeuvre of the UTEs.

Quite similarly, other actors also prefer keeping the binary structure in higher education; most of the actors of other HEIs, from other sector organizations or from the political-administrative side agree with this typology and consider it appropriate in the present situation. Thus for instance the position of the university rectors' conference (CRUS):

Hier haben wir natürlich Meinungsverschiedenheiten mit der COHEP. Ich verstehe diese Einteilung, ich finde sie den Hochschulgesetzen entsprechend nicht ideal in allen Details, aber ich denke, dass die beiden Grundtypen universitäre Hochschulen und Fachhochschulen einen Sinn und eine Berechtigung haben. (RESP 044, 6)

*Representative CRUS*

Consequently, the sector associations of the universities and the UAS agreed on the description of the binary structure as it was proposed for the draft law on higher education. They suggested to explicitly cite the universities, the ETH, the UASs and UTEs and to characterize their profile



in terms of the binary structure, mentioning also the degrees delivered. Thus, it would have been defined in the law that the university sector offers all academic degrees up to the PhD, and that the non-university sectors only offer B.A. and M.A. degrees. Finally, the proposed clarification was not adopted by the Parliament, but the statement is a strong statement for the binary structure of the Swiss higher education system, with university institutions on the one hand and non-university institutions on the other. The joint declaration of the three rectors' conferences – CRUS, KFH and COHEP – keeps this typology and characterizes universities, UASs and UTEs in terms of the binary structure (CRUS et al. 2009).

Other actors have a more sceptical view of developments in the higher education system. Thus, a representative of the UASs assesses the outcome of the legislation process for the Federal higher education Act (HFKG) as a tribute to the federal system. The integration of the UTEs into a federal framework of higher education without integrating them into the UASs and subjecting them to the federal government was due to the balance between federal and cantonal forces in the education system (cf. RESP 024, 9). Only this would explain why the UTEs were successful in their lobbying for a separate mention as a type of HEI, alongside the UASs. Only their special status as cantonal HEIs enabled them to obtain this attention at the Federal Parliament.

Summarizing the different positions, it can be said that the UTEs see themselves as a third type of HEI. They do not want to belong to the UASs; rather, they believe that they are more like the universities. It is astonishing how persistently and at the same time how successfully the representatives of the UTEs have championed this interpretation. Thus, within a decade, the UTEs have evolved from a clear definition and characterization as UASs towards a type of HEI situated somehow between the academic universities and the UASs, open to drift further towards the universities.

### **11.3.2 The controversy over doctorates**

A typical example of a controversial issue where different actors' interests are involved is the right to award doctoral degrees. In the controversy over the doctorates, the UTEs share a common interest with the UASs. Both challenge the universities' monopoly of doctoral education. They criticize the fact that the universities alone define PhD criteria, and question the fact that the academic prerogatives to grant doctorates and offer post-doctoral courses are tied to the type of HEIs. Consequently, they challenge the differentiation by type of HEIs. They no longer agree with the criteria of differentiation by type of research: fundamental research by the universities, applied research by the UASs. Thus, the UASs and the UTEs argue that in

disciplines where there are no equivalent subjects at the universities (e.g. the fine arts, health-related professions and social work), they have to provide their own disciplinary development.

The sector association of the UASs, the KFH, recently declared the introduction of UAS-specific doctorates as a mid-term goal. The KFH is calling for a differentiation of the right to award doctorates, in particular for those disciplines for which there are no possibilities of cooperating with universities:

Die Einführung des fachhochschulspezifischen dritten Bologna-Zyklus ist ein mittelfristiges Ziel der KFH. Sie verfolgt die Strategie eines differenzierten Promotionsrechts. [...] Sie unterstützt im Rahmen eines differenzierten Promotionsrechts die Schaffung kooperationsbasierter Doktoratsprogramme mit in- und ausländischen Universitäten sowie mittelfristig die Entwicklung und Etablierung von fachhochschulspezifischen Angeboten. Vor allem jene Disziplinen, für die bei universitären Hochschulen keine Bezugsprogramme bestehen und für die sich deshalb keine Kooperationen mit Universitäten anbieten, profitieren von einem spezifischen dritten Zyklus für Fachhochschulen.<sup>147</sup>

The UASs principally challenge the idea that the different types differ by research or the teaching. Therefore, they argue that differentiation by type will disappear:

Überspitzt stellt sich die Sachlage so dar, dass das Promotionsrecht ein wesentliches konstitutives Element einer universitären Hochschule ist und gleichzeitig Universitäten eigenverantwortlich und individuell bestimmen, was ein Doktorat sein soll. [...] Offensichtlich führt weder die Art der Forschung noch der Ausbildung zu einer scharfen Unterscheidung zwischen universitären Hochschulen und Fachhochschulen. [...] Da die Aktivitäten von Fachhochschulen und universitären Hochschulen sich künftig noch stärker überschneiden werden, sind Hochschultypologien zunehmend diffuser. Langfristig werden sie sich auflösen. [...] Ob Doktoratsprogramme geführt werden können, hängt von der Qualität von Lehre und Forschung einer Hochschule ab.

*Former rector of the University of Applied Sciences Zurich*<sup>148</sup>

However, there are different views as to the way the non-university sector is to be differentiated from the university sector. Whereas some argue for a functional differentiation, where different types of HEIs would cover different disciplines and thematic specializations, others favour differentiation as to mission and role. Different types of HEIs would thus have different tasks within the higher education system. Whereas the classical universities would focus on a more academic and research-based education the non-university sector would represent a specific form of higher education training with a close link to praxis and industry. Consequently, third cycles at UASs – if they offered them – would not be realized by copying the university model but rather as some new and specific form of doctorate. The president of the Federal Commission of the UASs described the following concept:

<sup>147</sup> KFH: Der dritte Bologna-Zyklus an Schweizer Fachhochschulen, Grundsatzposition der KFH, 2.11.2011, [http://www.kfh.ch/uploads/dkfh/doku/111102\\_KFH\\_Position\\_3\\_Zyklus\\_D.pdf](http://www.kfh.ch/uploads/dkfh/doku/111102_KFH_Position_3_Zyklus_D.pdf) [accessed: 30.8.12]

<sup>148</sup> Werner Inderbitzin: Die Tradition darf kein Argument sein. Langfristig werden sich die Hochschul-Typologien auflösen, in NZZ, 12.4.2011.

Aber sie [die Fachhochschulen] sollten versuchen, nicht einfach dasselbe zu machen wie die Universitäten, sondern selbstbewusst ein eigenes, zeitgemäßes Doktorat zu definieren, etwa unter dem Motto: weniger lange Liste von Fachpublikationen – dafür mehr Kompetenzen im Führen von Lehr- und Forschungsprojekten.

*President of the Federal Commission of the UASs*<sup>149</sup>

In a similar vein, some representatives of cantonal ministries argue for a differentiated approach to the doctorates. Thus, the UAS and the UTEs should develop their own types of doctorates which could then also be named differently such as for instance professional doctorates in the United States (e.g. the Educational Doctorate Ed.D.).

Je dirais que la forme même du doctorat tel qu'on l'entend au classique dans les universités, cette forme-là n'est probablement pas adéquate pour l'ensemble du système. [...] il est nécessaire que les trois [types] puissent former au plus haut niveau [...] mais en gardant leurs spécificités. Alors évidemment le doctorat académique universitaire n'est probablement pas pertinent à cent pourcent pour des HES. Il l'est peut-être dans certains champs, mais ce qui est important c'est de réfléchir à la question du doctorat professionnalisant. [...] Donc il y a, à l'intérieur des titres académiques, la possibilité de différencier les titres par rapport aux spécificités finalement des types. (RESP 039, 8)

*Senior official, Ministry of education, Canton Vaud*

On the other side, representatives of the universities strictly oppose the UAS' and UTEs' claim to introduce the doctorate. They argue not only on the basis of the specific profile and mission they have been given in the binary structure, but also concerning quality aspects, and do not regard the UTEs as competent and sufficiently qualified to offer programmes up to the doctoral level. But their steadfast refusal also reflects a fear of new competition. They are merely defending their own interest in retaining a monopoly over doctoral degrees. Thus, as the statement of the rector of the University of Zurich illustrates, the university defends its prerogatives: "Das Promotionsrecht muss den universitären Hochschulen vorbehalten sein".<sup>150</sup> Similarly, professors of education prefer to keep this prerogative:

Da muss ich nun natürlich sagen, da bin ich jetzt Interessenvertreter. Im Moment finde ich das natürlich gut, dass wir das an der Uni haben. Das ist einer unserer Vorteile. Den würde ich eigentlich nicht so leichtfertig aus der Hand geben wollen. [...] Wenn wir dieses Recht nicht mehr haben oder wenn wir dieses abgeben, dann wären die Universitäten noch weniger attraktiv. (RESP 034, 32)

*University Professor of education*

On the basis of the new Federal Act on Higher Education, a university law professor argues that it would be contrary to the established system in higher education if the non-university

<sup>149</sup> Cf. Hans Zbinden, quoted in Aargauer Zeitung, 4.10.2012.

<sup>150</sup> Andreas Fischer, rector of the University of Zurich, quoted in: NZZ: Ringen um die Marschrichtung. Unterschiedliches Selbstverständnis der pädagogischen Hochschulen – Forderung nach Promotionsrecht prallt ab, NZZ, 25.8.2012.

sector were to introduce doctoral programmes. In his view, the new legislative instrument would maintain and pursue the classical differentiation of the higher education system into a university and a non-university sector. With the description of the functions of the UASs – characterizing the UASs as vocationally oriented and on applied research-based HEIs (Art. 26 HFKG) –, the legislator, according to the law professor, clearly expressed its will to maintain the dual differentiation. Consequently, the non-university sector would differ in a number of aspects from the university sector, in particular as to the type of research. Thus, the UASs would be in charge of applied research, while the universities would be responsible for fundamental research. The following statement is thus a clear testimony against any convergence of UASs with the universities:

Angesichts des im Gesetz deutlich ausgedrückten Interesses, die Profile der Hochschulen zu schärfen und ihre Stärken auszubauen, erschiene ein Promotionsrecht der Fachhochschulen jedoch geradezu systemwidrig. Nur mit diesem Verständnis kann auch der von Wirtschaftskreisen wiederholt und nicht zu Unrecht geäußerten Befürchtung begegnet werden, dass das HFKG zu einer Akademisierung des bewährten dualen Bildungswegs und damit zu einem Verlust der Praxisbindung der Fachhochschulen führen könnte. [...] Im Ergebnis ist es sinnvoller, die Durchlässigkeit zwischen den Hochschultypen zu verbessern, als die komplementär zu profilierenden Hochschultypen einander anzugleichen.

*Professor of Law, University of Zurich*<sup>151</sup>

Yet even if one deduces from the Federal Act on Higher Education (HFKG) that the UASs are not conceptualized as doctoral-granting HEIs, the legal situation for the UTEs is not clear as states also the general secretary of the EDK. Since the UTEs are exclusively cantonal institutions, no federal law applies. The UTEs are mentioned in the HFKG only in order to position them in the context of the higher education system, but they are governed by cantonal law. Nor does the characterization of the UTEs as being a type of UAS subject them to the federal law. The only superordinate law concerning the UTEs is the Law on Intercantonal Recognition of Diplomas, which however only regulates study programmes and does not provide any institutional recognition:

Es gibt keine Norm, die in einer PH von übergeordnetem Recht verbieten würde, Promotionen durchzuführen. [...] Es gibt kein übergeordnetes Recht zu den PHs mit Ausnahme des Diplomanerkennungsrechts der EDK. Dieses nimmt nur die Studiengangregelungen vor und beinhaltet keine institutionellen Anerkennungen [...]. Wir akkreditieren nur die Studiengänge. Und das hat mit institutioneller Anerkennung fast nichts zu tun. [...] Es könnte höchstens noch ein Trägergesetz geben, das [die Promotion] ausschliessen würde. Das ist aber nicht der Fall, weil die kantonalen Gesetzgeber gar nicht an so etwas gedacht haben. Mit anderen Worten: Die PHs sind eigentlich völlig frei. [...] Es dürfte jedoch schwierig sein, gegen den Willen des politischen Trägers zu handeln. (RESP 021, 22-24)

*General Secretary EDK*

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<sup>151</sup> Thomas Gächter: Das Doktorat gehört zum Profil der Universität. Das Promotionsrecht für Fachhochschulen ist gegen den Sinn des Hochschulgesetzes, NZZ, 12.4.2011.

Theoretically, the UTEs are thus completely free to introduce doctoral programmes, but it will be difficult to do this against the cantonal authorities who represent the owners of the institutions. From the perspective of actor-centred institutionalism, we can conclude from this situation that it will depend principally on the specific and local institutional setting and the concrete actor constellation whether a UTE will be able to introduce doctoral programmes. The overall institutional framework does not really hold them back. Rather, much depends on the local actor constellation: The position of the cantonal government, the parliament, is decisive in this respect. And of course it also counts whether the vital interests of other HEIs, in particular the universities, are affected.

However, not all actors of the UASs share the opinion that the UASs need the right to award doctoral degrees on their own. The UAS' association is divided into two camps: those demanding the right to award doctorates and those who prefer cooperating with universities. The division runs along the subjects with the new fields (music, fine arts, social work) claiming the doctorates vs. the traditional UAS fields such as engineering, management, sciences which are much more reserved with this demand. They prefer to cooperate with universities than to award lower status PhDs (cf. RESP 024, 36).

Similarly to the new UAS fields, the universities of teacher education argue that in teaching-specific fields, there would not be any real supply at the traditional universities. In particular as to the subject-related didactics (didactique des disciplines/Fachdidaktik), the universities would not be known as having acquired an expertise. Yet these were the fields where the UTEs would need to train their young researchers. Many actors agree on this point. They can imagine that the UTEs could introduce third cycle programmes leading to a doctorate in subject-related didactics. Even from the side of the EDK, there is apparently no opposition to this idea.

Mir erscheint das [Promotionsrecht] nur für die Fachdidaktik wirklich gut begründbar. Weil die anderen Disziplinen ja an Universitäten vertreten sind. [...] PHs verkörpern im Unterschied zu den meisten Fachhochschulstudienbereichen weitgehend Studiengänge, die es so an den Unis gar nicht gibt. Sie haben damit die Fachdidaktik mindestens für die Volksschule quasi zur Vollständigkeit legitime gepachtet. (RESP 021, 22; 28)

*General Secretary EDK*

The argument is that it would make sense to offer third cycle courses at UTEs in subject-related didactics, especially in view of the fact that the universities – apart from some exceptions – do not have acquired strong experience in these fields. However, this would only apply to didactics, as the other subjects are represented at university. Yet it is not easy to implement such third cycle programmes in subject-related didactics at UTEs. Many questions remain: the UTEs would have the personnel with the required qualifications in didactics and learning-

specific science, but what about the disciplinary aspects? Since didactics of the subjects also require profound disciplinary knowledge which is traditionally offered at universities, collaboration between UTEs and universities seems adequate as has been initiated by the rectors' conference, CRUS (cf. RESP 044: 38f.). Why should doctorates in didactics be introduced only by UTEs and not also by universities? What about studies in didactics at universities? Furthermore, what should the requirements be to enter a doctoral programme? Would it be sufficient to have acquired a B.A. or a M.A. at a UTE, i.e. a teaching diploma? Or would a PhD in subject-related didactics at a UTE also require a regular university degree in the respective subject? The dilemma of how to strike a balance between subject knowledge and pedagogical content knowledge leads back to the conflict between the orientation at the scientific discipline and the research system and the orientation at the pedagogical situation in the school system. The UTEs could of course acquire enough expertise in teaching- and learning-related fields and offer PhD programmes, but the education of the future teachers also relies on all the disciplines of the subjects taught in the schools.

Among the cantonal ministers and policy-makers, a majority is rather sceptical towards the introduction of doctorates at the UTEs. They want the UTEs to keep their profile of HEIs practising applied sciences, and they prefer PhDs to be written in partnership with universities. They argue that it would be difficult and very complex to do PhDs at UTEs. Further, the field where PhDs by UTEs would be possible would be rather small. With reference to foreign cases, some policy-makers advise against the differentiation of the PhD. This would not help the UTEs to raise their status, on the contrary (cf. RESP 043, 16).

Ich bin nach wie vor kein grosser Freund davon, dass die PHs ein Promotionsrecht erhalten sollen. Ich denke einfach, das wäre relativ schwierig, ein relativ enges Feld, wo die pädagogischen Hochschulen Promotionen überhaupt ermöglichen könnten. [...] ich glaube, sie tun sich keinen Dienst. Ich bin ein klarer Verfechter davon, dass solche Promotionsvorhaben in Kooperation mit Universitäten angepackt werden. (RESP 043, 16)

*Senior official, Ministry of education, Canton Thurgau*

Die pädagogischen Hochschulen sollen eine anwendungsorientierte Ausbildung für Lehrerinnen und Lehrer betreiben. Wer akademische Pädagogik-Wissenschaft betreiben will, kann die bestehenden Übertrittsmöglichkeiten zwischen den Pädagogischen Hochschulen und den Universitäten nutzen.<sup>152</sup>

*Minister of Education, Canton of Zurich*

Finally, even among the research personnel at the institutions of teacher education, there is a sceptical stance on this question. The declared goal by the some UTE representatives of

<sup>152</sup> Regine Aeppli, quoted in NZZ: Ringen um die Marschrichtung. Unterschiedliches Selbstverständnis der pädagogischen Hochschulen – Forderung nach Promotionsrecht prallt ab, 25.8.2012.

introducing doctoral programmes does not meet with unanimous enthusiasm. There are a number of points raised by more sceptically disposed actors even from within the UTEs: many respondents agree with the need for the UTEs to train their own personnel but admit that the UTEs are yet not prepared for this task. If the UTEs wished to offer doctoral programmes, they would have to have enough personnel with the required qualification, i.e. a university post-doctoral degree (Post-doc or Habilitation). Currently, only a very small number of UTE professors meet these requirements. Furthermore, doctoral programmes should be embedded within a wider and international scientific network. Consequently, several respondents advise against a forced and precipitous policy of introducing doctoral degrees at the UTEs, for they fear a devaluation of the academic titles:

[...] das Promotionsrecht als Existenzbedingung würde ich jetzt sogar als gefährlich einstufen; man muss schauen, was realistisch ist. [...] Aber wenn man jetzt wirklich langfristig schaut, würde ich mal sagen, als Ziel würde das heissen, dass man auch Dozierende hat, die entsprechende Promotionen begleiten können, was die es im Moment zumindest in der Menge überhaupt nicht gibt. (RESP 023, 26)

*Representative PHTG*

Wenn die entsprechenden institutionellen Voraussetzungen als Sicherheiten gegeben werden - ich bin ja nicht grundsätzlich dagegen -, aber im jetzigen Zustand wäre es abenteuerlich. [...] Also das würde heissen, dass es habilitierte Leute sein müssen, die dies beurteilen und machen, an Universitäten habilitierte Leute. Das wäre für mich die *Conditio-sine-qua-non*, ansonsten haben wir das, was in den Fachhochschulen ziemlich stark der Fall war, die massive Entwertung von symbolischen Kapitalien. Wenn einfach jeder, weil er lange genug dabei gewesen ist, einen Professorentitel kriegt, dann ist das absurd. Und eigentlich ja nicht universitär, ich finde, daran sieht man genau auch noch dieses Dilettieren. Von daher müssten sich die PHs noch um einiges entwickeln. (RESP 038, 13-18)

*Representative PHTG*

Actuellement, je pense que la HEP n'a pas encore le savoir-faire et le niveau qui lui permettrait de délivrer des doctorats. [...]. Donc à ce moment-là il est normal que les HEPs ne disposent pas du droit de dispenser des thèses mais je pense qu'elles doivent apprendre à le faire. Et clairement dans dix ans, je pense qu'elles doivent pouvoir le faire. (RESP 040, 14)

*Representative HEP VD*

What is more, they point to the fact that there is a tendency among UTEs towards further differentiation by emphasizing the practical orientation and by distinguishing themselves from the academic universities (RESP 028, 102). And eventually, the question is raised as to what will distinguish a UTE from the university the day the UTEs have their own academically fully qualified personnel and grant doctoral degrees? In fact, this kind of academic drift would align the UTEs with the classical universities; the differentiation into higher education types would be redundant. In other words, the introduction of doctoral degrees at the UTEs could also lead

to the abolishment of this institutional type and teacher education could be fully integrated into the universities:

Alors, [...] à un moment les HEPs vont atteindre un niveau de fonctionnement qui fait que naturellement elles pourront en quelque sorte assurer la relève de leur corps professoral. [...]. Mais elles ne le feront jamais avec leurs propres moyens, elles auront toujours besoin d'autres HEPs, et universités. Le doctorat fait toujours appel à des professeurs étrangers. Alors pourquoi pas. Si elle est assez grande, mais avec 14 HEPs en Suisse, mais désolé, on aura jamais une taille suffisante pour dire, à nous tous seuls on y va, [...] je pense plutôt qu'au moment où elles seront capables d'assurer leur propre relève du corps professoral, elles vont se coller au fonctionnement universitaire. Elles vont se fondre dans le fonctionnement universitaire. (RESP 046, 8f.)

*Member of the management HEP VD*

However, representatives from the UTEs report that collaboration with the universities regarding doctoral education proves to be rather complicated and tiring, and full of status struggles. These problems are generally put forth by the advocates of the introduction of doctorates at the UTEs. They argue that the universities would never accept them as equal partners on a par and that a stronger and direct confrontation would be needed:

Es gibt aber, das will ich ganz offen machen, auch in der COHEP eine Minderheitenposition, die sagt, dass dieser Dialog mit den Unis niemals geraten wird, und dass wir uns wie die baden-württembergischen PHs zu eigenständigen pädagogischen Universitäten weiterentwickeln müssen. Und daran entzündet sich immer diese Problematik "Wo sind wir anzusiedeln?". Das gilt im Besonderen für Schnittstellen wie die Fachdidaktik. (RESP 031, 18)

*Representative of COHEP*

As for the issue of subject-related didactics, upon approval by the EDK, which exerted a certain amount of pressure in this regard, the two sector organizations of the university rectors' and the UTEs rectors' conference have taken the lead and coordinated the establishment of competence centres in didactics nationwide. The idea is to create master programmes in specific didactics. The concept provides for a concentration in each subject and to achieve cooperation between universities and UTEs for the master's degree would be recognized simultaneously by the universities and the UTEs. But the tendering process proved quite difficult. Several UTEs offered similar centres, an approach that ran counter to the plan of concentration and cooperation. And it was not easy for the sector associations, the CRUS and the COHEP, to persuade the different HEIs to cooperate in this domain. (cf. RESP 044, 38-46) However, the issue is a hot topic and competition among the HEIs in this field is keen. In the end, the chosen steering model was very successful for each master programme had to be approved by both conferences.



As for the constellation of actors, we can conclude that the relationship between higher education institutions is generally rather competitive; universities compete with universities, and UTEs compete with UTEs. The relationship is complicated by the position of inequality. In general, the universities do not treat the UTEs as equal partners. The mode of interaction of the university and the UTE sector can be characterized by mutual observation. Since positions are not that clear, each actor carefully observes the others' strategic actions. In this constellation, any attempt by the UASs or the UTEs to introduce doctorates is observed, as it threatens the universities' predominance.

The political authorities seem to be prepared to some extent to comply with the request by the UTEs. However, they fear forced academization and have therefore adopted a rather defensive posture. And among the UTEs, it depends on the actual constellation of those advocating for doctoral degrees. Researchers in the field tend to favour the introduction of the doctoral degrees, but there are others who are more critical on this point and who judge that the UTEs are not being prepared already with regard to present qualifications of the personnel. As a consequence, actor constellations vary by canton, institution, and department as to the push towards further academic prerogatives, doctoral degrees, and overall research orientation. This is another argument for a number of case studies, for only an analysis of the concrete situation in the case of a specific UTE will allow us to identify factors promoting and impeding academic drift and convergence with the universities.

### **11.3.3 Relationships with government and the school system**

The UTEs have a special relationship with their cantonal ministries and the school system. They are much more closely tied to the ministries than other HEIs.<sup>153</sup> Although the UTEs have gained more autonomy from the political authorities, they are still considered by policy-makers as belonging primarily to the school system, responsible for the training of the teachers. Among policy-makers and administrators, the understanding dominates that the UTEs must take orders from the government. On this issue, the president of the COHEP makes it clear that the UTEs do not fear the political influence by the EDK but rather direct interventions by individual cantonal governments concerning their UTEs, as was the case in the context of the recent teacher shortage, when cantonal offices gave an order to conceptualize short-time study programmes for career changers:

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<sup>153</sup> The degree of institutional autonomy varies considerably between the individual UTEs. There are UTEs where the government is not represented in the board of the UTE, which means that the rector for instance is elected and appointed by the council and not by the government; other UTEs have a board where the responsible minister is a member of the board; and still other UTEs where the responsible minister is ex officio chair of the board.

Die grosse Gefahr, der wir ausgesetzt sind [...], ist nicht die EDK, sondern sind die Kantone, dort wo sie Träger sind. Also der Durchgriff zum Beispiel in der Nordwestschweiz oder in Zürich in Zeiten des Lehrermangels [mit dem Auftrag] „Ihr habt jetzt eine Ausbildung folgenden Typus‘ zu kreieren!“, das ist die wirkliche Autonomiegefährdung. (RESP 031, 54)

*Representative of COHEP*

The often difficult relationship between the new institutions of teacher education and the cantonal ministries impedes the development of the UTEs as institutions of higher education that must be integrated into a system of higher education. From the perspective of the cantonal governments and the EDK, the self-confidence of the UTEs as HEIs and the way they define their autonomy is perceived with scepticism. Thus, the general secretary of the EDK complains about the distance of the UTEs from the educational system, not to the teaching practice but to the organization of the schools; issues such as the organization of schools, the management, the recruiting of teachers, the fit between the newly trained teachers and the teaching post with teachers prepared for those subjects that schools need, etc. He characterizes this deficiency as a certain distance of the UTEs to the school system (“Systemferne”):

Wenn ich heute [...] gefragt werde, wo hat die Schweiz ein Problem mit der Lehrerbildung, würde ich sagen: Nicht beim Theorie-Praxisbezug, was den Unterricht betrifft. Nicht mit der Wissenschaftlichkeit, das ist alles verstärkt worden. Da kann man noch weitergehen. Und vielleicht haben die kleinen PHs dann mal ein Problem. Das sind alles nicht die entscheidenden Probleme. Meine Befürchtung oder Skepsis ist: Sind die PHs wirklich noch im Dienste am System? (RESP 021, 12)

*General Secretary EDK*

Viewed from a systemic perspective, this simply means that he complains about the fact that the monopsonistic power of the cantonal authorities with regard to the UTEs has diminished<sup>154</sup>. As autonomous institutions of higher education, the new UTEs enjoy greater freedom and now take the liberty to have their own opinion concerning certain political decisions and projects, and consequently express their discontent or reluctance with a particular policy. The decrease of the cantonal power and influence is most pronounced in the case of regional UTEs with intercantonal governance where several cantons share authority and supervision. Yet, the general secretary of the EDK does not agree with this interpretation of the autonomy of the UTEs. He expects the institutions of teacher education to be also in the service of the government, and to commit themselves to education policy projects (RESP 021, 12). While fully recognizing the institutional autonomy of the UTEs, the mission of the UTEs – in his eyes – is politically determined, i.e. a public contract to train specific types of teachers for a given

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<sup>154</sup> Traditionally, the relationship between government and teacher education had a monopsony-monopoly form: The cantonal institution of teacher education had the monopole to train teachers, the cantonal government as the only employer of teachers (apart from a very small number of private schools) was in the role of a monopsonist with the result that it could determine the way teachers were trained.

school system. In the understanding of the Conference of Cantonal Ministers of Education, this contract, this mandate given to the UTEs by the political authorities, is binding and non-negotiable.

Die institutionelle Autonomie besteht durchaus. [...] So verstehen wir auch das HFKG. Darum haben wir auch in voller Absicht die PHs diesbezüglich unter die hochschulrechtliche Autonomie gestellt. Sie sind gleich zu akkreditieren institutionell, hochschulrechtlich wie irgendeine andere Hochschule. Aber das ist doch nicht zu verwechseln mit dem Auftrag. Denn: Wer gibt die Parameter für diesen öffentlich-rechtlichen Auftrag, die verschiedenen Lehrpersonen auszubilden? (RESP 021, 16)

*General Secretary EDK*

This completely different understanding of the institutional autonomy of the UTEs between the EDK and the UTEs themselves illustrates the conflict between the school system and the higher education system. The more the UTEs define themselves as institutions within the higher education system, oriented towards the science system, the more they keep their distance from the educational policy by the cantonal government. As institutions of higher education, the UTEs are less prepared to act as implementation agencies for educational policy projects. Consequently, the UTEs do not want the political side to define the training of teachers. Rather as providerw of higher education, the UTEs claim to be autonomous also in the conceptualization of the study programmes, definition of the access criteria and the like. But these two approaches are not easy to reconcile. If the education system and the political system drift further apart and insist on the prerogative of defining the parameters of teacher education, the directly qualifying degrees of the UTEs (i.e. a degree from a higher education institution that directly qualifies for a teaching post) will be at risk.



**CASE STUDIES OF  
UNIVERSITIES OF TEACHER EDUCATION**

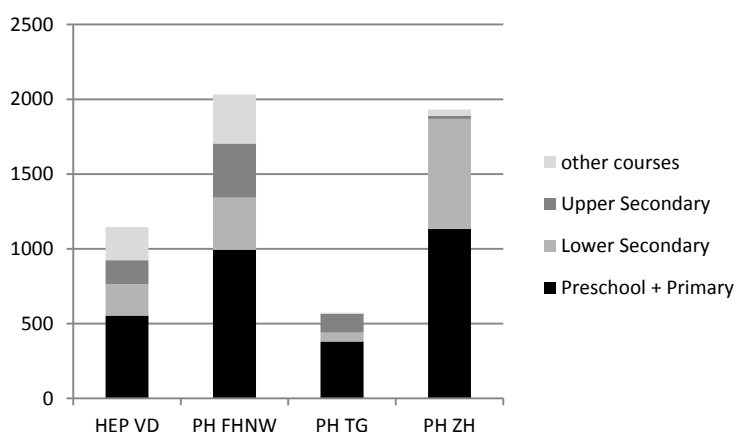


## 12 Case studies: Overview

In the following sections, in-depth case studies on four different UTEs are conducted to determine to what extent differences as to the institutional setting or specific actor constellations are relevant. For this purpose, each of the four institutions of teacher education is presented taking into account the recent institutional and organizational development within the local context. The portraits of the UTEs are based in particular on expert interviews with internal and external actors representing key roles with regard to the establishments' strategy. This information is complemented by means of interviews of further personnel or by documentary sources such as press articles or various reports (for further details as to methodological procedures, see chapter 6.3, page 95).

The figures below highlight the specific characters of the four UTEs serving as cases: *Haute école pédagogique du canton de Vaud (HEP VD)*, *Pädagogische Hochschule der Fachhochschule Nordwestschweiz (PH FHNW)*, *Pädagogische Hochschule Thurgau (PHTG)*, and *Pädagogische Hochschule Zürich (PHZH)*.<sup>155</sup> Among these four UTEs, PH FHNW and PHZH represent large institutions comprising some 2,000 students; HEP VD represents a medium-sized UTE, albeit the largest one in the French-speaking part of Switzerland; and finally PHTG is one of the smaller UTEs, although it has grown significantly of late (see Figure 12.1).

**Figure 12.1: Number of students, 2011, four cases**



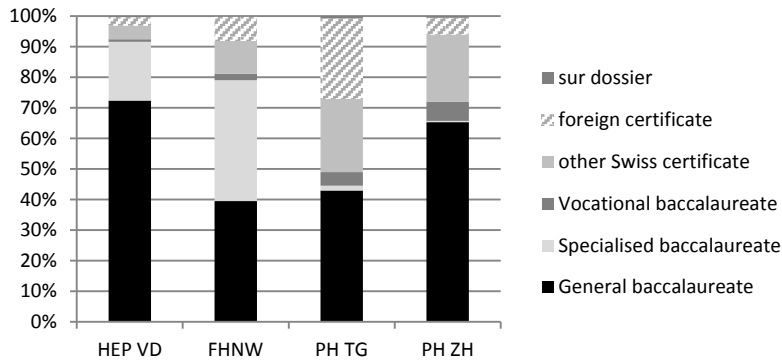
Source: FSO

Patterns of students' entry qualifications reflect local traditions (see Figure 12.2). Accordingly, in the far eastern part of Switzerland (Thurgau) as well as in the north-western cantons, traditionally, teacher training students did not come from the general baccalaureate schools (i.e. the

<sup>155</sup> For comparative purposes, the four UTEs are always represented in the same order.

high school track). Rather, they have acquired other types of upper-secondary degrees, that are as a rule lower in status than the general baccalaureate.

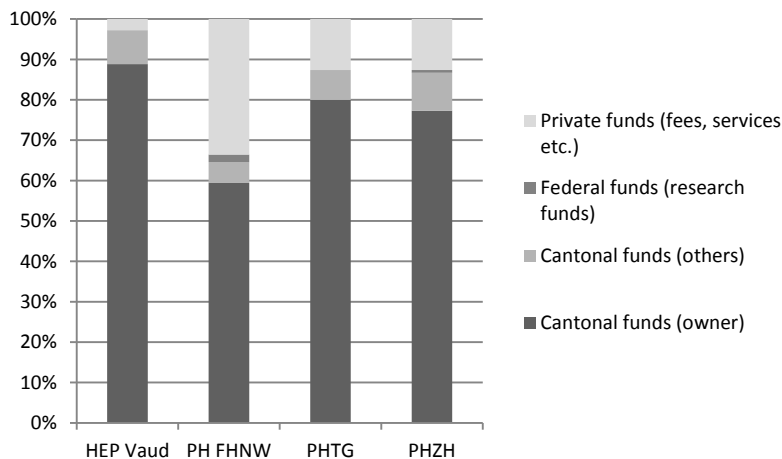
**Figure 12.2: Entry qualifications (primary teaching courses), 2011, four cases**



Source: FSO

As for the financing of the UTEs, we generally observe high degrees of cantonal funds, i.e. the owner of the HEI (see Figure 12.3). However, among the four UTEs examined in depth, PH FHNW is characterized by a relatively low share of cantonal funding and accordingly a high portion of funding by private funds, students' fees or revenues from services, in particular teachers' further education and training.

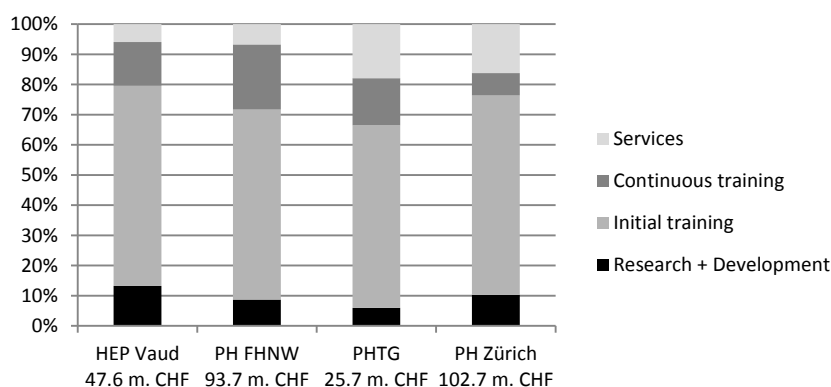
**Figure 12.3: Funding shares, 2010, four cases**



Source: FSO

The total budget reflects the size of the institution. Thus, PH FHNW's and PHZH's budget amounts to nearly CHF 100 million; HEP VD accounts to about half, and PHTG one-quarter of the PHZH's budget (see Figure 12.4). The share allocated to research and development, which averages about 10%, is significantly lower for PHTG. In 2010, R+D costs came to CHF 10.6 million for PHZH, CHF 8.2 million for PH FHNW, CHF 6.3 million for HEP VD, and CHF 1.5 million for PHTG.



**Figure 12.4: Total costs, 2011, four cases**

Source: FSO

The illustration reflects the primacy of teaching at the UTEs. It is shown for all four UTEs that initial training represents the largest portion of total costs. Between two-thirds and three-fourths of expenditure is allocated to initial training. Under the category ‘services’, the UTEs also subsume specialized training for the schools, for instance, in the context of the introduction of new teaching manuals. Thus, the fact that this category is substantially larger in the case of the PHTG and PHZH also reflects their proximity to the cantonal ministry and their role for the school system. On the other hand, continuous training represents activities based on the initiative of the UTEs, such as the development of specific study programmes for further qualification. These programmes play an important part as far as the UTEs’ profile is concerned. In this regard, the PH FHNW has been more active than the other UTEs and now covers about one-third of its budget from private fees and services. It seems that by means of continuous training programmes, the UTEs can find their niche as HEIs and gain in importance.



## 13 The University of Teacher Education of the Canton of Vaud (HEP Vaud)

### 13.1 Introduction and background

The reform of teacher education in the Canton of Vaud proved a delicate, complicated undertaking, and is characterized by several failures.<sup>156</sup> The first attempts in 1991 to reform the situation of teacher education dating back to 1976 failed. The situation at the time was characterized by a pronounced separation of the training of teachers for different school levels as well as differentiation into three sectors at the lower secondary level. Teacher education for the primary school level was organized in decentralized institutes throughout the canton. The idea of the reform project in 1991 was to create a new institution comprising teacher training for the whole compulsory school, i.e. training for the primary and the lower secondary level (secondary I). Yet it was open to question whether the programmes for primary and secondary teachers should be of the same duration and what this would mean in terms of financial resources. Furthermore, continuous training was to be developed.

Yet this project was rejected by the cantonal parliament in November 1991. It was primarily the merging of the education of primary and secondary teachers that was rejected.<sup>157</sup> Following this failure, the government was asked in December 1991 by means of a parliamentary motion<sup>158</sup> to develop a new project of teacher education that would be consistent with the school laws dating back to 1984. The subsequent draft bill which the government submitted in 1994 was to link all the different institutions of teacher education for the primary and the secondary level as well as the centre for continuous training under the umbrella of a new university of teacher education (Haute école pédagogique). As access criteria, the general baccalaureate was defined (maturité gymnasiale). Although the idea to integrate the different institutions was generally welcomed, resistance developed to the introduction of the baccalaureate as an entry qualification and the organization of a network structure was simply rejected. Instead, it was proposed to create a single centre for initial teacher training (Noverraz 2008).

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<sup>156</sup> The following presentation of the several phases of the reform of teacher education in the Canton of Vaud draws extensively on the report by Noverraz (2008) and the report on the consultation process for the new act on the UTE by Surdez (2006).

<sup>157</sup> «Le débat se focalisa sur la formation des maîtres secondaires généralistes, leur champ d'enseignement et l'augmentation des coûts.» (Noverraz 2008: 58)

<sup>158</sup> Cf. motion Nicole Grin et Eric RoCHAT, 10 décembre 1991.

### 13.1.1 An attempt to reform teacher education

In 1995, a new project was developed: the creation of an institution of teacher education comprising four institutions, the training of the general teachers, the training of the specialized teachers, the institution of education and research in special needs education as well as the documentation centre. In general, the project tried to keep the specificities of the cantonal school system (e.g. the differentiation of the secondary I level) while at the same time complying with the intercantonal references (Noverraz 2008).

The project went into a consultation process in 1996 and was subsequently entrusted to a coordination group with input from a broad cross-section of the actors concerned. The project to establish a new institution of teacher education could thus be prepared with the participation of all relevant actors in the cantonal education system. The key elements of the project were the integration of the teacher education of all categories of teachers, the raising of standards and entry requirements, the prolongation of the training of primary teachers up to three years and the creation of strong management (Noverraz 2008: 64f.). The integration of all types of teachers was an ambitious goal, for most other cantons had opted to keep separate institutions for the different teacher categories. Besides the Canton of Vaud, only the project of the intercantonal institution of teacher education BEJUNE integrated the training for all teachers into the new university of teacher education.

The concept of the new institution of teacher education in the canton of Vaud, the HEP Vaud, provided an organization in six sections comprising admission, initial teacher training at primary level (-2/+6), initial teacher training at secondary level, pedagogical training of specialized teachers, continuous training, the institute for training and research in special needs education, and the centre for resources and research in educational sciences.<sup>159</sup> The central site of the new HEP Vaud was to be located in Lausanne, and there were four regional sites concerned with the organization of the occupation-specific and practical training (Noverraz 2008).

The project was accepted by the government and sent into political consultation at the beginning of 1999. This project was generally accepted although several points were raised and questioned by the political actors, namely the organizational structures that were viewed as overly complex, the question as to whether one did not want to create a unified institution for all the French-speaking cantons, the raising of the entry requirements, and last but not least,

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<sup>159</sup> Cf. admission, formation initiale (-2/+6), formation initiale secteur secondaire, formation pédagogique des maîtres spécialisés, formation continue ; institut de formation et de recherche de l'enseignement spécialisé ; centre de ressources et de recherche appliquée en sciences de l'éducation (Noverraz 2008)

higher costs were feared, especially in view of the prolongation of the study courses (Noverraz 2008: 137f.).<sup>160</sup>

The prolongation of the study time was due primarily to the fact that the regulation for the mutual recognition of diplomas by the CDIP required a minimum of four years for lower secondary teachers (EDK 1999a). In the case of the HEP Vaud, the two additional semesters were to be organized in cooperation with the university and other tertiary institutions. The idea launched by the association of secondary teachers as well as by university representatives, of requiring an academic bachelor for admission to secondary teacher education at the UTE, was rejected by the ministry on financial grounds. The ministry also feared the fragmentation of the teaching personnel of the different sectors at the lower secondary level (Noverraz 2008).

The research mission of this new institution was somehow limited. The concept stipulated that the role of research within the new UTE was to develop and evaluate teaching materials. Furthermore, research projects in educational sciences and didactics with a strong link to teacher education were suggested as well as to guide pedagogical projects in schools:

Par rapport au projet initial, les activités de recherche sont de fait réduites à des activités de formation des étudiants et ne laisseront que peu de place au développement de projets de recherche tels qu'ils seront attendus par les experts dans le cadre des procédures de reconnaissance des diplômes HEP. La visée d'un partenariat égalitaire avec les hautes écoles, exprimé par les Thèses dans le cadre de la promotion des missions et du statut des HEP, se trouve ainsi obliérée. (Noverraz 2008: 140)

The project proposed that the personnel at this UTE would have the same position as high school teachers (maîtres de gymnase) and the former teacher educators at the teacher training college. One reason for this was the fact that the current personnel in teacher education did not have the profile of the university lecturers (Noverraz 2008: 138).

The parliamentary debates were lively and reflected the complexity of the issue. Some delegates expected teacher education to be integrated at the university, but the majority favoured keeping as much as possible to the former system. Also, the cantonal specificity of differentiation to three tracks at the secondary level rendered the project somewhat incompatible with the other French-speaking cantons (which had been one of the goals of the reform). Finally, the parliament realized that this reform would inevitably entail higher costs. In March 2000, the new act was adopted by the cantonal parliament; however, there were many votes against the project as well as numerous abstentions (Noverraz 2008). The first students finally entered the new HEP Vaud in August 2001.

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<sup>160</sup> Concerning the salaries of the newly trained teachers, the minister for education clearly stated that the longer training would not automatically entail higher salaries: « L'élévation de la formation des maîtres au niveau HEP n'entraîne pas automatiquement celle du niveau salarial. » cf. *Projet de Haute école pédagogique. Rapport d'intention de la cheffe du Département de la formation et de la jeunesse adopté par le Conseil d'État le 24 novembre 1999*, p. 2 ; cité in (Noverraz 2008: 138).

The transfer of the personnel of the ten former institutes that were now integrated into the new UTE was a delicate operation. The conditions of this transfer were negotiated between the ministry and the different professional organizations and associations of the personnel. However, since the new UTE posts were all new positions, the climate was very tense, along with relations between the personnel and the new institution as well as the ministry. Many of the former teacher educators had difficulty understanding the UTE's decision to advertise all of the positions as vacancies, which led to conflict and mistrust within the institution (Noverraz 2008: 155).

### **13.2 Failure of the procedure for intercantal diploma recognition**

In 2002, the HEP Vaud applied for intercantal recognition of the diplomas for all its study programmes and submitted all the required documents to the CDIP. Based on the examination of these documents, the CDIP initially provided positive feedback in a pre-announcement in September 2003 concerning the intercantal recognition of all study programmes. However, after visiting the institution in March 2004, the commission arrived at a negative result for the recognition procedure and reported this in July 2004 to the ministry. The Commission concluded that the new HEP Vaud would not fulfil all the criteria required for intercantal recognition by the CDIP. This report with the negative evaluation result led the ministry to suspend the entire procedure. The points raised by the Commission concerned in particular the structure of the study programmes, the organization and evaluation of the practicum in the schools, but also the evaluation of the theoretical modules and the didactical training (Noverraz 2008). Despite the desire to create an institution for teacher education at the tertiary level, the framework of the 2000 law on the HEP Vaud was too deeply rooted in the tradition of the teacher colleges at the post-secondary level and did not really make the step towards an institution of higher education:

Globalement, un constat s'impose suite à l'évaluation des diplômes de la HEP-Vaud : le positionnement légal et réglementaire enferme la HEP dans un rôle d'établissement du secondaire II amélioré, sans ancrage possible dans le domaine tertiaire, en raison, d'une part, des contraintes imposées par la LHEP 2000 et des attentes des services employeurs, d'autre part. Une organisation systémique de la formation des maîtres du canton s'avère indispensable. (Noverraz 2008: 184)

In a subsequent evaluation of the institution, the following weak points were identified: the merging of ten former institutions was highly complex and problematic. The organizational structure was too complex and the decision-making process too long. Furthermore, territorial conflicts and constant conflicts among the personnel severely hindered the new institution from developing its new identity (Noverraz 2008: 185).

### 13.3 Transition phase and preparation of a new project

In July 2005, the Parliament abrogated the 2000 Act on Teacher Education and installed a transitional regime for three years. The goal of this intermediate phase was, first, to determine the institutional options for refounding teacher education at the tertiary level; and second, a wide-ranging public debate on teacher education was launched inviting a broad public to discuss future teacher education (Surdez 2006; Conseil d'Etat du canton de Vaud 2007).

Already towards the end of 2005, the government adopted temporary regulations for the organization of the HEP Vaud in order to pursue its mission of training teachers. These regulations were adopted following the model of the regulations for the university. This transitional legal framework allowed the HEP Vaud to resume the procedure of intercantonal diploma recognition by the CDIP. In order to facilitate the debate on teacher education, the ministry organized a convention in the beginning of 2006, bringing together some 300 persons from all stakeholder groups with the aim of discussing the mission of a new institution of teacher education and identifying the general direction of a future act (Conseil d'Etat du canton de Vaud 2007: 5).

Key topics for this debate were previously identified by means of a written consultation: the dilemma of increasing the level of requirements while opening teacher education up to a wider public; and the integration of teacher education into the higher education system, which meant raising standards but avoiding excessive extensions of study time as well as cost increases for the public authorities (Surdez 2006). Further issues were the question of access criteria and the entry requirements; the differentiation of study programmes according to the level of teaching sought (in particular the question of whether to differentiate between primary and secondary teachers); and the organization and institutional structure of a new teacher education institution.

Regarding the access to the UTE, most respondents in the consultation process considered that the general baccalaureate (i.e. *maturité gymnasiale*) should be the criteria for admission to teacher training. However, other more specialized types of baccalaureates could be admitted provided that these degrees were qualified by some sort of complementary training. Interestingly, this option was also suggested by respondents advocating the transfer of teacher education to the university (Surdez 2006: 8).

Next, the degree and level of specialization was a central, delicate and very complex issued which had to be solved. This question deals with the conceptualization and the way in which teacher training is organized and the balance to be struck between disciplinary training

and occupation-oriented training. The different opinions on this issue express different views regarding the positioning of teacher education within higher education.

The differentiation of teacher education according to school level concerns not only the content and quantity of the training but also the quality and status of the degrees earned. In a differentiated approach, teachers of the secondary level would be required to undergo longer training and possibly acquire an academic degree before starting teacher training at a university of teacher education. Secondary teachers would then earn a university bachelor plus a teacher education master whereas primary teachers would only earn a teacher education bachelor (Surdez 2006: 10).

Contrary to the approach of a differentiated organization of teacher education, several actors argued in favour of an integrated approach where all types of teachers would be trained at university level. Such a transfer of teacher education to university was supported by the left-wing parties as well as by the teachers' associations, who stressed the need to enhance the status of primary schoolteachers. It was felt that their occupational mission would require scientific training completed with a master, and their degree should be equivalent to those of other types of teachers. This would apply all the more so because the usual university diploma would be a master. Further, professional careers should become more flexible and allow teachers to change from one level to another. And finally, any salary improvement for primary schoolteachers would only be possible if their training was extended to the masters' degree (Surdez 2006: 17). The integration of all types of teachers would of course reduce the existing hierarchy among the teaching staff and was therefore particularly advocated by the professional organizations of teachers. However, several questions remained unanswered. The present system for diploma recognition by the CDIP, for instance, differentiates between primary and secondary level teaching, requiring three years' training for the former and four years' training for the latter. (Surdez 2006; Noverraz 2008)

### **13.4 Institutional organization of the new UTE**

The question of the institutional organization of teacher training pertains to the delicate issue of the distribution of competences between the institutions involved in teacher education, thus the UTE, the university, the EPFL and the UAS. Among the respondents in the consultation process, two options were preferred overall: either maintain the status quo, possibly with some amendments concerning the allocation of the training between the UTE and the university, or fully integrated teacher education into the university, whereby the UTE would have to be transferred into a department of the university (Surdez 2006: 22).



The option of transferring the entire training and education of all categories of teachers (disciplinary, pedagogical and occupational training) to the UTE was discarded by most of the respondents and was simply not feasible since the UTE would then have to provide the entire disciplinary education. This option was solely advocated by the teacher educators from the existing UTE. Its supporters argued that the university would not be able to adapt its studies to the need of the student teachers (Surdez 2006: 23).

A large share of the respondents preferred maintaining the status quo. The division of competencies between the UTE and the other higher education institutions was perceived as advantageous in two respects: first, such an organization of teacher education could build on the experiences of the past; and second, it would allow keeping the differentiation of the teaching personnel according to the school levels they choose (Surdez 2006: 24). This would also be consistent with CDIP regulation of diploma recognition. The general idea behind a distribution of responsibilities between the different HEIs is that the disciplinary teaching is best offered by the universities and that pedagogical and didactical training is best offered by the UTE. This view corresponds to the traditional understanding of the missions of the different HEIs. Accordingly, it would not be efficient or optimal for the UTE to offer disciplinary courses and for the universities to do occupation-specific training, given that, in the eyes of most actors, teacher training should not in any case be too “theorized”:

Le principe de la partition se fonde sur l'idée que les compléments disciplinaires ne peuvent pas être offerts par la HEP et qu'il n'est pas adéquat de théoriser la formation, notamment pédagogique et didactique, en l'intégrant complètement au sein de l'Université (l'AEHEP s'exclame « En tout cas pas ! » concernant cette option). (Surdez 2006: 24)

The other option of transferring the entire UTE to the university and integrating it into the university structure was supported by those actors who strongly advocated establishing teacher education at the university level. The proponents came from the education sector with strong interests as to their professional status. These were the general teachers' association of the canton (SPV), the students' federation (FAE), the association of the intermediary staff at university (ACIDUL), and among the political parties, the Social Democratic Party (PS). The students' federation (FAE) argued that the goals of conveying the same degree (Master) for all types of teachers and making the system more permeable for career changers could only be achieved by integrating teacher education at university (Surdez 2006):

Pour la FAE, l'argument central est que l'ancrage de la formation à l'Université est le seul qui garantit l'obtention d'un même titre de sortie, le Master, pour toutes les formations, ainsi que les ponts entre filières. D'ailleurs, la FAE ajoute que si la HEP pouvait délivrer ce seul même titre, elle pourrait aussi entrer en ligne de compte pour y regrouper l'ensemble de la formation des enseignants. (Surdez 2006: 25)

The Social Democratic Party (PS) saw teacher education as formally associated with the university but institutionally independent and autonomous. It was clear, however, for the party that teacher education had its place at the university, for it was not just a university of applied sciences (UAS). And of course the status of students and personnel at the UTE would be improved if the UTE were placed under the law of the university. (Surdez 2006)

Pour le PS, la HEP doit trouver sa place à l'Université parce qu'elle n'est pas « une simple HES, ses étudiants accomplissant une part du cursus à l'Université. (Surdez 2006: 25)

Several respondents also argued that the connection to the university that such a transfer would entail could be fruitful in particular for research at the UTE, because student teachers could be better socialized with scientific knowledge:

En ce qui concerne le contenu de la formation, l'ancrage universitaire favorise « une relation plus responsable des étudiants au savoir » (Les Verts) et renforce une « assise pédagogique de niveau universitaire » (opinion individuelle). Cet Institut universitaire serait en outre le plus à même de mener des tâches de recherche. (Surdez 2006: 26).

Yet the teacher educators themselves did not support transferring the UTE to the university. As they saw it, the UTE already had an academic level and was perfectly able to provide all the training for the future teachers. Nor did the representatives from the university advocate the transfer of teacher education to the university, on the contrary. The management of the University of Lausanne as well as the faculties concerned preferred an optimized status quo solution, that is, they preferred keeping teacher education at an independent UTE which would cooperate with the other HEIs, i.e. the university, the Lausanne Federal Institute of Technology (EPFL) and the UAS of Western Switzerland (HES SO). The responsibility for teacher education would be shared among all the HEIs concerned. All the university actors clearly declined the idea of either integrating the UTE into the university or concentrating all teacher education at the UTE (cf. Surdez 2006):

Il est ici très important de noter qu'aucune Faculté ne plébiscite le scénario C de l'intégration ou de la fusion, refus qui laisse un angle mort pour ce scénario. Pour la Faculté des Sciences sociales et politiques et son doyen, il n'est pas pertinent de regrouper soit à la HEP, soit à l'Université/EPFL des branches qui se donnent actuellement dans l'une et l'autre et pour lesquelles les institutions mentionnées ont les compétences scientifiques. Elle préconise en revanche une structure de partenariat, avec un Comité scientifique qui élaborerait et gérerait les cursus et qui délivrerait les diplômes. (Surdez 2006: 27)

In the view of the university representatives, the role and mission of the university is education in the academic disciplines, not the professional training of teachers. Furthermore, the university does not want to see its own offering of teaching courses duplicated at the UTE:

Pour la Faculté des lettres et son doyen, il n'est pas envisageable de transférer le volet disciplinaire à la HEP, avant tout afin d'éviter les doublons ou transferts d'enseignants et parce que cela empêcherait de remplir les exigences de la CDIP de partenariat entre HEP et Hautes Ecoles pour la recherche. Parallèlement, il n'est pas adéquat de confier la formation disciplinaire et de métier exclusivement à l'Université, notamment pour les enseignants du degré préscolaire et le primaire (ce n'est pas « la vocation première » de l'Université et de la Faculté des lettres qui, par ailleurs, n'ont pas « pour finalité d'offrir une formation professionnelle » impliquant l'organisation de stages par exemple). (Surdez 2006: 27)

These opinions are a clear and frank expression of the binary conceptualization of the different types of HEIs: on the one hand, the traditional universities with the mission of academic training and scientific research; on the other hand, the occupation-oriented universities of applied sciences competent for a vocational training. Unlike the view of the proponents of the integration of teacher education at university, the university itself does not perceive teacher education as an academic business. This opposition by the representatives of the university would have to be taken into account when conceptualizing a new approach to teacher education. The author of the report that summarizes the results of the consultation process identifies a key element here as to the feasibility of different institutional options. Any solution has to deal with this opposition of the university to any integrative approaches and to consider its institutional clout (Surdez 2006: 28).

The two options that emerged during the consultation process and the convention can thus be summarized as follows: the first option represents to some extent an improvement of the status quo. Teacher education would be kept in differentiated programmes, i.e. a short programme for preschool and primary teachers and a longer programme for lower secondary teachers. Primary teachers would acquire a pedagogical BA from the UTE, whereas secondary teachers would first earn an academic BA at university or the EPFL then complement it by a pedagogical MA from the UTE. The second option designated that the teachers of all levels would be trained at university. Didactics, pedagogics and practical training would be delivered by a special institute or a school integrated at the university. Due to lacking support, this second option was not pursued by the ministry, nor was the idea to train all teachers up to the master's level. The project of the new act that the ministry presented to the Parliament diverged from the first option. Similar to the University Act, the new Act on the HEP Vaud represents a framework law, flexible enough to be adapted to the concrete case of teacher education but still sufficiently precise that Parliament could treat in detail all the necessary aspects as to the function, control and mastery of the UTE.

The HEP Vaud finally received formal recognition from the CDIP in October 2006. This positive signal put an end to the difficult situation created by the negative recommendation by the experts in 2004, paving the way for the drafting of a new Act on Teacher Education. The

new Act positions the HEP Vaud as a HEI at the tertiary level, endowed with significant autonomy compared with the former institutions of teacher education but with limited autonomy compared with the university. This is due to the dual mission of teacher education: academic education and occupation-specific training. Also, the UTE has to respect the intercantonal convention on mutual recognition of diplomas (Conseil d'Etat du canton de Vaud 2007: 12). The new Act on the new UTE was adopted by the cantonal parliament on December 2007 (EDK 1998). This legal instrument defines the status and mission of the UTE as follows:

La HEP est une école de niveau tertiaire à vocation académique et professionnelle. Elle vise un niveau d'excellence dans les domaines de la formation d'enseignants, de la didactique et des sciences de l'éducation (Art. 3,1 LHEP).

Dans ce but, elle poursuit les missions suivantes, le cas échéant en collaboration avec d'autres hautes écoles: assurer la formation de base en pédagogie, en didactique et en sciences de l'éducation d'enseignants des degrés préscolaire et primaire, des degrés secondaire I et secondaire II, des professions de l'enseignement spécialisé; organiser des formations approfondies et continues dans les domaines qui relèvent de sa compétence; développer des savoirs dans les domaines de la didactique, de la pédagogie et des sciences de l'éducation par l'enseignement et la recherche; participer à la formation doctorale dans ses champs de compétences; contribuer à l'acquisition des compétences requises par d'autres métiers de l'enseignement et de la formation; exercer une fonction de service en faveur de la collectivité et contribuer au débat de société. (Art. 3,2 LHEP).

### **13.5 Integration of teacher education into the higher education system: Positioning and status considerations**

Similarly to other universities of teacher education, also in the case of HEP Vaud, the actors dealing with teacher education have different views and perceptions concerning the position and status of teacher education. The adoption of the amended Law on the HEP Vaud in 2007 was characterized by a surprisingly strong majority across very different actors supporting the new strategy to strengthen the academic orientation of teacher education and to conceptualize the new institution of teacher education on the basis of the university law.

Mais il y a eu un soutien politique de tous les partis, de presque l'unanimité. En faveur d'une universitarisation. A l'époque il y avait même le projet je crois de rattacher la formation à l'université. ... L'université n'a pas voulu parce que ce n'était pas prêt. Ils avaient raison ce n'était pas prêt. Et moi je me souviens à l'époque être venu dans un groupe de travail et avoir dit que ce soit à l'université de Lausanne ou dans une HES, ça ne change rien si vous ne changez rien à l'intérieur. C'est le noyau à l'intérieur. Après que ça soit rattaché à l'université, à la HEP, à l'EPFL, à tout ce que vous voulez, ça viendra de lui-même. Le problème du rattachement ne se posera plus si l'évolution du système a eu lieu. Mais il faut une génération entre, c'est-à-dire à peu près 30 ans, 35 ans pour y arriver. (RESP 046,21f.)

*Representative of HEP Vaud*

Representatives of the HEP Vaud, in particular executives, have an interest in highly positioning the HEP and emphasizing the academic aspects as well as other characteristics which the

HEP shares with the universities rather than with the UASs. These actors are closely concerned by the identity of the new institutions and by questions relating to the position and status of teacher education within higher education. Consequently, they tend to position the HEP towards the universities or at least in between, but not as belonging to the sector of the UASs. They emphasize the proximity to the traditional universities or define the UTEs at least as forming a third type of HEI which cannot therefore be assigned to the UASs (cf. RESP 040, 2).

From the perspective of the cantonal ministry, the HEP Vaud is defined as forming part of a third type of HEI. After the failure of the first attempt to obtain intercantonal recognition from the CDIP, the ministry aligned the new HEP Vaud much more at the tertiary level, underscoring its academic characteristics. In other words, the “hybrid” position between university and UASs is programmatic and shall combine the occupation-specific mission with the academic and scientific mission (cf. RESP 039, 2). The strategy behind this approach by the government is the professionalization of the teachers via a more academic and scientific approach in teacher education, including the training of young academics by offering posts of assistants at the UTEs following the university model.

Donc effectivement, on a vraiment voulu faire monter le « niveau de jeu » du côté universitaire, tout en sachant que le produit est un professionnel. C’est un professionnel de l’enseignement voir, et c’est quelque chose qui est évidemment sous-jacent, un des autres produits de la fabrique HEP et aussi à long terme, enfin ça dépend où l’on veut placer le long terme, la constitution d’une relève à l’intérieur de l’institution. (RESP 039, 6)

*Senior official, Ministry of education, Canton of Vaud*

Other representative from the HEP Vaud also define the UTEs as being positioned between the universities and the UASs, but they focus more on the vocational orientation aspect and thus describe the UTEs as a specific example of the UASs. Furthermore, there is the limitation to the Bachelor’s and the Master’s degree.

En fait, elle est à mi-chemin entre les deux. [...] Entre les deux, fonctionnant sur le modèle des universités en sciences appliquées, qui serait plutôt le modèle des HES, les hautes écoles pédagogiques. La différence étant que les HEP ne peuvent pas délivrer de titre de docteur, ce qui pose des problèmes. Cependant c’est une limitation avec laquelle on doit faire le processus de tertiarisation de nos institutions de type HEP. (RESP 033, 2)

*Representative of HEP Vaud*

Yet these structural aspects lead other actors to position teacher education rather at the side of the UASs because of the institutional conditions which are similar to those of the UASs, such as the missing right to award doctoral degrees, the higher teaching assignment etc. (cf. RESP 037, 2). Similarly, the professional associations also position the UTEs closer to the UASs.

They emphasize the aspect of occupational training leading to a concrete occupation and therefore perceive teacher education as forming part of the non-university sector. However, they are also aware of a certain ambiguity, for instance, that there are also academic elements in the UTEs.

Dans la mesure où elles doivent déboucher directement sur une profession, je les situerais plutôt du côté des HES mais avec des contenus académiques. [...] Dans certains aspects, ça ressemble beaucoup à des contenus, à des structures qu'on peut avoir dans des HES mais dans d'autres beaucoup plus à une faculté universitaire. [...] On voit bien cette ambiguïté et je me demande comment elle peut être dépassée actuellement. C'est extrêmement délicat. (RESP 051, 4)

*Representative of teacher association*

For the professional association (SPV), the fact that the UTEs as HEIs at the tertiary level also have an occupation oriented mission<sup>161</sup> makes this HEI type a very specific one. However, it realizes that there is an ambiguity in the system as to the way in which the different HEI types are defined:

Maintenant on se trouve dans une situation un peu particulière parce que les HEP sont quand même un objet un peu bizarre. Ça n'est pas une université au sens strict. Ça n'est pas non plus une HES donc on a un objet qui est un peu particulier dans la mesure où dans ses composantes académiques, il est situé au niveau tertiaire mais en même temps c'est une école professionnelle. C'est une école professionnelle qui produit des enseignants, c'est-à-dire cette catégorie un peu bizarre d'une profession qu'on voudrait être une profession et non plus un métier au sens d'une profession libérale mais très captive. [...] Je dirais que les HEP sont devenues quelque chose de particulier. [...] On a une grande ambiguïté par rapport à ça, sachant qu'elles ne fournissent dans le fond que des masters ou des bachelors professionnels. [...] Il me semble que les HEP doivent encore trouver leur équilibre dans ce paysage. (RESP 051, 2)

*Representative of teacher association*

For most of the actors in the canton of Vaud, this ambiguity lies in the difference between the formal definition by the CDIP from 1995 describing the UTEs as universities of applied sciences and the actual dynamics of teacher education within higher education. For, among teacher educators, the perception dominates that the global tendency in teacher education is to develop towards a more academic model of teacher education, taking place at traditional universities. The UTEs as a type between universities and UASs would thus represent only an intermediate state:

Ceci dit, je ne sais pas comment les choses pourraient évoluer à court ou moyen terme mais il y a quand même une tendance, je pense, qui veut rendre plus universitaire cette formation des enseignants. Dans toute une mouvance européenne liée aux accords de Bologne et à une revalorisation de la fonction enseignante, le fait qu'on porte à un niveau master les formations des enseignants dans le secondaire inférieur, supérieur et parfois même au niveau de l'enseignement primaire, c'est une tendance lourde qui à

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<sup>161</sup> A fact that is also defined in the new law : “La HEP est une école de niveau tertiaire à vocation académique et professionnelle.” Art. 3, 1 : LHEP.

mon avis amènera à terme les HEP à rejoindre les universités ou à devenir un équivalent des universités. Cependant ceci est un avis qui n'engage que moi. (RESP 033, 4)

Donc on est dans des domaines où je crois que les HEP sont des structures temporaires. C'est bon pour 15 ans, 20 ans mais on doit aller vers l'universitarisation. (RESP 046, 6)

*Representatives of HEP Vaud*

Likewise, the teacher's professional association, based on recent developments in the canton, foresees a development towards a higher academic status with the Master's degree for all teacher categories. This would of course represent a further step towards more scientific and research-based education of teachers – a development which of course dovetails with the interests of the teacher's associations:

Ce placement au niveau tertiaire est le résultat d'un combat qui a été mené durant de nombreuses années. [...] Nous, de toute manière, en qualité d'association professionnelle, plus le niveau reconnu des études sera élevé, meilleur ce sera. Donc, qu'on arrive, tôt ou tard, à un vrai master en pédagogie ; [...] qu'on ait pour l'ensemble des enseignants un niveau de master réel académique, en imaginant une véritable faculté de pédagogie qu'on pourrait comparer ou imaginer un peu comme une faculté de médecine, eh bien évidemment cela serait un plus. (RESP 051, 10)

*Representative of teacher association*

From the perspective of the executives of the HEP Vaud, integration or affiliation to the university could be a goal for the longer run, but they also know that the UTEs in the present stage would not be prepared and ready for this, and as long as the university does not see the UTEs as an equal partner, such an integration would not really be feasible, as states a member of the management of the HEP Vaud (e.g. REP 033, 8; 046, 6). Among the UTEs, the strategy is clearly to achieve at least in the medium term the full academic prerogatives including the right to award doctoral degrees. Yet given the small size of all 14 UTEs in Switzerland, it is also clear that the UTEs will always need to cooperate with other HEIs in order to train their next scientific generation (cf. RESP 046, 8). The question of the doctorate is closely related to the question of the identity as HEIs and of the position within the higher education system. The statements of the different respondents reveal that those supporting strongly the right to award doctoral degrees are also those in favour of a stronger academic orientation and eventually integration into the university.

### **13.6 Relationship with the ministry**

Despite the new framework law giving the UTEs greater autonomy, the relationship with the ministry is difficult and there are tensions because the administration is loath to give up its

prerogatives and competencies regarding teacher education. A member of the management of the HEP Vaud put it this way:

Maintenant la mise en place de cette autonomie demande du temps. Du point de vue de la HEP ça va beaucoup trop lentement, aussi parce que les différents services administratifs cantonaux se demandent ce qui leur arrive. [...] les services de l'Etat ne la comprennent pas [l'autonomie] et ils mettent beaucoup de temps à lâcher leurs prérogatives sur la HEP. Ils continuent à considérer la HEP comme un sous-service de l'administration cantonale. (RESP 040, 24)

*Member of the management of the HEP Vaud*

For the executives of HEP Vaud, it is a matter of course that teacher education is much exposed to the political processes and that the HEP is constrained by the political authorities. Thus, autonomy does not mean complete independence from the political authorities. Consequently, for the management of the HEP Vaud, the rather close relationship between ministry and UTE is self-evident and has to be accepted. And finally, what counts is the autonomy the institution gains on the basis of acquired competence and scientific authority:

Mais bien entendu, il se trouve que l'école est un sujet politique et polémique par excellence. On ne peut pas faire comme si ça n'était pas le cas. [...]. L'autonomie par rapport au pouvoir politique, je pense que c'est toute la liberté académique, la liberté de recherche, de publication, d'écriture, d'avis, de jugement y compris sur le système scolaire. Mais il faut savoir que cette institution collabore avec ce système scolaire. Et on peut avoir une attitude critique envers le système, pour autant qu'on accepte que ça soit inversement une attitude. Donc si vous voulez, l'autonomie de la HEP est pour moi fortement lié à son niveau de compétence moyen et il faut élever ce niveau. Si elle reste au niveau d'école normale elle ne sera jamais autonome, au sens capable de produire un savoir. (RESP 046, 14)

*Member of the management of the HEP Vaud*

There are on the other hand researchers at the HEP who firmly reject too much involvement by the political authorities. They fear losing their academic freedom and perceive direct orders by the ministry as an intrusion into their autonomy. Hence, the autonomy declared in official statements is often perceived as only make-believe rather than real, since the ministry continues to issue instructions. In the words of a researcher at HEP Vaud, this discrepancy is manifested as follows:

Sur la question du développement et de l'autonomie, par exemple, il y a le plan d'étude roman qui se développe dans toute la Suisse romande. Bon, il faut former les enseignants qui sont déjà dans les établissements, il faut organiser les formations dans les établissements avec les directeurs. Et bien par ce que le département oblige la HEP à le faire. On n'est pas dans l'autonomie là, on ne fait pas ce qu'on veut et ça prend beaucoup d'énergie et beaucoup de temps à beaucoup de formateurs. Ça pèse sur les emplois du temps [...]. Ils ne dégagent pas de l'argent et du temps pour faire ça. C'est compris dans le budget de la HEP et donc j'ai des collègues qui voulaient faire de la recherche et qui ne peuvent pas puisqu'on n'a pas le droit de dire : 'Non, non. Nous on est autonome, on a décidé de ne pas faire la formation PER'. On ne peut pas. (RESP 037, 36)

*Researcher HEP Vaud*



Yet this relationship can be seen quite differently as the argument developed by an executive illustrates: From this perspective, teacher education has never been independent and isolated from the school system. Therefore, the UTEs have to consider the reality of the school system and collaborate with partners from the praxis side of the school system. Teacher education has to be related to the education system. Thus the UTEs have to carry out such services,

pas parce que le pouvoir le demande mais parce que c'est la fonction aussi d'un système de répondre à des difficultés, d'un système HEP de répondre aux difficultés du système scolaire. Donc si vous voulez pour moi, l'autonomie est d'abord une affaire de compétences et non d'indépendance. Croire que les HEP peuvent faire comme si elles n'étaient pas dans un système est une erreur. [...] Alors, on pourra dire que les HEP sont autonomes. On va vers cette indépendance mais on est encore extrêmement tributaire. On a bien vu avec ce qui s'est passé avec les HEP alémaniques. On leur a demandé de résoudre le problème de pénurie en leur donnant des catégories de solutions, on ne leur a pas laissé construire des solutions. C'est ce à quoi il faut arriver pour être autonome. (RESP 046, 14)

*Representative HEP Vaud*

### 13.7 Adoption of the research function

The failure of 2004 led political figures and the public concerned to reflect on the question of what it really meant to have teacher education at the level of higher education. Policy-makers realized in 2004 that it was not sufficient to put all sorts of teacher training colleges together into a big institution and to assign it to the higher education system. Instead, if teacher education was to become an institution of higher education with an academic habitus and a research basis, a real project of universitarization would be needed, comprising the conceptualization of a professorial corps, an intermediary corps and appropriate governance structures (cf. RESP 046, 21). Consequently, the new Law on the HEP Vaud of 2007 offers a much better institutional framework for development as an institution of the tertiary level than the former legal basis. The new law was conceptualized following the example of the University Act, and thus grants the UTE a relatively high degree of autonomy – a fact that all respondents acknowledged:

[...] je pense qu'on bénéficie à la HEP Vaud d'un dispositif légal extraordinaire parce qu'on a effectivement le même dispositif légal, ou presque, que celui de l'université de Lausanne. [...] Donc on a vraiment un statut d'autonomie légal très, très bien fait. Maintenant la mise en place de cette autonomie demande du temps. (RESP 040, 20)

*Representative HEP Vaud*

Furthermore, a differentiated structure of personnel is defined already in the law. Among the different functions, such as UTE professor, teaching professor, lecturer, assistant, it is in

particular the description of UTE professor which is innovative and illustrates how the HEP Vaud is trying to adapt to the new research function:

Le professeur HEP est porteur d'un doctorat. Il dispense et supervise l'enseignement ; il dirige des projets de recherche d'envergure nationale ou internationale et peut co-diriger des thèses de doctorat (Art 42, 1 LHEP).

Thus, the category of “HEP professor” comprises scientifically experienced and academically recognized persons. An HEP professor must hold a PhD and have a scientific network (cf. RESP 046, 28). In this position, he or she will lead a research group within a certain field. These research groups deal with specific research projects, but they are also responsible for teaching. For this purpose, these groups – called “unite d'enseignement et de recherché (UER)” – are composed by different categories of personnel, researchers, lecturers and assistants.<sup>162</sup>

With the organizational structure of small units assuming teaching functions as well as research missions, the HEP Vaud has laid the foundations for the union of research and teaching, which is the constitutive element of the academic university. Accordingly, the rector of the HEP Vaud tries to implement the new strategy that he calls “academic leadership” (cf. RESP 046, 10) on the grounds of this legal basis.<sup>163</sup> Thus, the HEP professors will compose a body of professors who would assume the role of academic leadership within the UTE. These HEP professors are distinguished from the intermediary corps – the research assistants and lecturers – and will, thanks to their academic competence and status, help to develop the research function of the UTE. The introduction of this category of personnel leads of course to a new hierarchy within the institution of teacher education. But, in the view of the rector, this hierarchy is a key element for truly assuming the research function of an HEI:

On n'a pas de leadership académique. On a une structure du personnel qui est encore très uniforme. Il n'y a pas l'équivalent des professeurs. Si vous voulez le leadership est réputé être partagé par tout le monde dans une université. Il y a quelques personnes qui sont des locomotives et qui tirent en avant. Je ne dis pas que c'est mieux, mais pour intégrer l'université il faut créer cette espèce de pyramide univer-

<sup>162</sup> Les activités de recherche sont conduites principalement au sein des Unités d'enseignement et de recherche (UER) ainsi que dans des laboratoires qui réunissent des chercheurs autour de problématiques communes. Dans ce contexte, une orientation importante prise par la HEP du canton de Vaud est d'amener chaque enseignant de l'institution à prendre part aux activités R+D. » The UER have as their specific mission to conduct research: « [...] promouvoir des recherches de qualité; 2) améliorer la visibilité des recherche ; 3) diversifier les sources de financement; 4) améliorer les articulations entre R+D et enseignements; 5) favoriser les transferts sur le terrain des résultats des recherches.

(cf. <http://www.hepl.ch/cms/accueil/recherche/politique-recherche-et-missions.html>; accessed: 5.7.2012).

<sup>163</sup> The « professeur HEP » leads a research group: « Sous son [le professeur HEP, sd] leadership académique, des équipes de recherche participent à la construction de savoirs nouveaux en sciences et pratiques de l'éducation. Outre les professeurs HEP, ces équipes peuvent être composées de professeurs formateurs qui conduisent des activités de R+D relevant de leur domaine de compétences, de chargés d'enseignement, d'assistants qui secondent le professeur HEP et consacrent une partie de leur temps à la réalisation d'une thèse de doctorat. Les collaborations extérieures sont particulièrement encouragées à la HEP Vaud, en particulier avec des équipes de recherche partenaires, à un niveau national ou international, ainsi qu'avec les praticiens de terrain. » (cf. <http://www.hepl.ch/cms/accueil/recherche/politique-recherche-et-missions.html>; accessed: 5.7.2012).

sitaire du savoir et de la reconnaissance du savoir. Tant qu'on n'aura pas cette pyramide, on ne pourra pas l'intégrer l'université parce que la formation des maîtres sera toujours subordonnée. Si on arrive effectivement à créer cette pyramide au sein des HEP, je crois que le rapport se fera naturellement. (RESP 046, 10)

*Member of the management HEP Vaud*

Naturally, this development towards a more academically oriented HEI requires time for implementation. Viewed from the present, some years after the introduction, the new culture has been accepted by the personnel of the UTE; there is not much opposition anymore within the UTE, but at the ministry people still do not seem to have fully understood the changes and the mission behind it. Most important in his eyes is the new research function, and linked to this, the differentiation of the personnel, the development of an internationally linked network of researchers. However, this requires a long process of changing mentalities (cf. RESP 046, 32):

### **13.7.1 Institutional framework conditions**

The fact that UTEs do not have the right to award doctoral degrees was mentioned by every respondent of the HEP Vaud as an important handicap for the institutional development, in particular the fact that UTEs cannot train and develop their own new generation of academics. On the other hand, however, they also admitted that the UTEs as matters stood were not ready, not prepared for this task:

Actuellement, je pense que la HEP n'a pas encore le savoir-faire et le niveau qui lui permettrait de délivrer des doctorats. Je pense que c'est le cas de la plupart des HEP à quelques exceptions près. Bien sûr, on a des professeurs qui pourraient diriger des thèses. Ça reste encore très, très peu de gens pour l'instant. [...] Donc à ce moment-là il est normal que les HEP ne disposent pas du droit de dispenser des thèses mais je pense qu'elles doivent apprendre à le faire. Et clairement dans dix ans, je pense qu'elles doivent pouvoir le faire. (RESP 040, 14)

*Representative HEP Vaud*

The assessment of the research quality and output of the UTEs plays a key role in arguments regarding the right to award doctoral degrees. From the side of the universities, it is often argued that the research done by the UTEs was not sufficient. Representatives of the UTEs concede that there are still deficits and that the quality is rather heterogeneous, but stress that the UTEs have made considerable improvements. However, respondents from the HEP Vaud also assessed the research output as rather weak; for example, the research output in terms of publications is still insufficient for a HEI. This might also be due to the fact that the HEP Vaud

did not create a separate research institute but instead has tried to realize the link between teaching and research – a decision which obviously takes time:

[L'état de la recherche] est encore beaucoup trop faible. On y consacre beaucoup de moyens mais on n'a pas encore une habitude de publication. Pas seulement de publication mais aussi de transfert dans le terrain suffisamment ancré de mon point de vue. [...] On a voulu à la HEP que tous les profs fassent de la recherche. On n'a pas de centre de recherche séparé. On a vraiment une articulation très intime. On voit que c'est un travail lent mais qui commence à donner des fruits. [...] C'est un apprentissage. Alors, la recherche qui se fait à la HEP est parfois de très bonne qualité, parfois de bonne qualité mais sur un créneau très étroit et puis parfois encore insuffisante mais ça fait partie du processus. (RESP 040, 30)

*Representative HEP Vaud*

The deficits identified in research are explained by the weak research experience of institutions of teacher education. They do not have a strong scientific past like for example the cantonal universities. As it has been shown, research is a new function that has been introduced in teacher education only recently:

[...] évidemment, on n'a pas un passé très grand en recherche. Il n'y a pas beaucoup d'expérience dans la recherche. Il y a pas un capital scientifique élevé et on est même probablement derrière les HES là. (RESP 037, 2)

*Representative HEP Vaud*

Researchers at the HEP Vaud realize that they have quite different working conditions from their colleagues at university. Even at the highest research position – the “professeur HEP” – researchers do not have the “comfort” of university professors. The following professor at HEP Vaud perceives its position and its research conditions as definitively worse than those of a university professor. Thus, UTE professors do have significantly less time for research activities:

[...] on n'a pas le confort de certains universitaires, en tout cas des professeurs ordinaires ou autres qui ont des assistants et qui ont finalement très peu d'heures de cours et très peu d'obligations. Alors, ça dépend évidemment, il y en a qui ont des responsabilités tout ça, ça change de dimensions mais le professeur ordinaire classique qui a ses cinq, six heures de cours, qui a ses deux assistants et qui ne fait pas de suivi de stagiaires sur le terrain, qui ne fait pas toutes ces activités annexes qu'on a ici, a quand même beaucoup plus de temps pour faire de la recherche. [...] Il peut mettre à contribution ses assistants pour la recherche et pour l'enseignement. C'est quand même un confort qui est beaucoup plus grand. Donc voilà, en gros, on est évidemment en arrière mais tout est fait pour qu'on reste en arrière. Je ne vois pas comment on peut rivaliser avec les universités. C'est très difficile. (RESP 037, 2)

*Representative HEP Vaud*

Despite the fact that the law provides for assistants and an intermediary corps, researchers complain about the fact that there are still no posts of assistant at the HEP Vaud (RESP 037, 26). And finally, the UTE professors have a heavy workload with administrative tasks that they

are compelled to deal with since they are the head of a research and teaching unit. Thus, all the administrative duties that go hand in hand with teacher education are left with the UTE professors intended to do research. A researcher describes this as an expression of the problem of ultra-bureaucratization (cf. RESP 037, 40).

### 13.7.2 Relationship with the university

Regarding the relationship with the local university, the constellation is favourable for the HEP Vaud insofar as there is no faculty or department of education at the University of Lausanne, greatly limiting the potential for conflicts of interest. And respondents of the HEP Vaud explain the good cooperation with the university with this specific structural situation:

À Lausanne, oui parce qu'il y a eu une claire répartition des domaines. Si vous voulez, les sciences de l'éducation ont encore une certaine existence mais pas une existence importante à l'UNIL et elles sont plutôt en train de se développer à la HEP. Alors il y a des territoires, des disciplines et des territoires qui sont plutôt réservés HEP, plutôt réservé faculté des lettres ou philosophie ou SSP, sciences sociales et politiques. À Lausanne! - Mais je viens de Fribourg où ce n'est pas du tout la même chose et là c'est beaucoup plus difficile. Les territoires sont beaucoup plus enchevêtrés et il y a des conflits d'intérêts en permanence. (RESP 046, 6)

*Representative HEP Vaud*

Consequently, it is argued that under this condition, integration into the university would be easier than in the case where an institute of education already exists at the university. For any institution of teacher education will always have many more students than an institute of educational sciences. And this would mean that the university institute would be obliged to integrate an entity exceeding its own size by far (cf. RESP 033, 38). However, there are also researchers who have quite different experience in collaborating with the university. Apparently, not all researchers can truly collaborate with the University of Lausanne; there are others who prefer to work with the University of Geneva. This also seems to be a matter of scientific discipline.

[La collaboration avec l'Université de Lausanne], ce n'est pas facile. Alors nous, par exemple, on est dans une situation que je trouve un peu paradoxale. Il y a beaucoup plus de collaboration avec l'université de Genève, qui est pas très loin, mais qui est quand même un peu loin, que avec l'université de Lausanne. Avec l'université de Lausanne, il n'y a rien. Il n'y a très, très peu. [...] Je pense que c'est dû au fait que l'université de Lausanne, disons le mot, il y a quand même un mépris pour la HEP. Quand je dis qu'on est derrière les HES par exemple on voit qu'il y a pas mal de collaboration entre HES et l'université de Lausanne. Il y a des colloques communs. Il y a plein de choses sur la pauvreté, la précarité sur le genre. Avec la HEP, rien. (RESP 037, 10)

*Researcher at HEP Vaud*

The relationship between the HEP and University of Lausanne seems to be characterized rather by status hierarchy which translates into all projects: the role of scientific leader is generally incumbent upon the university.

L'an dernier, il y a eu un colloque soit disant organisé entre l'université de Lausanne et la HEP qui a eu lieu à la HEP mais au colloque il y avait personne de la HEP. On avait le droit de venir écouter mais on n'a pas été invité à communiquer sur nos recherches. C'est pour dire. En gros le colloque a profité des infrastructures et des ressources mais pas des ressources intellectuelles parce que visiblement on n'a pas de ressources individuelles. Donc voilà les relations sont plus faciles avec Genève. Les gens qui font des thèses ici les font diriger par des gens de Genève. (RESP 037, 12)

*Representative HEP Vaud*

Of course, this uneven relationship between the two institutions vastly complicates any collaboration with regard to the supervision of a PhD. The role of a UTE professor in supervising a PhD with a university professor who claims the lead since it is the university that will grant the degree is not attractive. This situation is a considerable handicap after all for the UTEs when it comes to developing their scientific profile (cf. RESP 037, 22).

### **13.8 Recruiting students for teacher education**

The tertiarization of teacher education and the creation of the UTEs have of course led to enhanced status for teacher education, and there is a trend towards further upgrading. Several actors claim to train all categories of teachers up to the master's level. Among these, the teachers' associations are prominent advocates of this academic drift. Their goal would be something like a school of education based on the model of the medical faculties (cf. RESP 051, 10). Yet they are also aware of the dilemma that comes with further academization and scientification of teacher education: the higher the level of training, the more selective the students will be. This will inevitably decrease the recruiting base and hence the heterogeneity of future teachers (cf. RESP 051, 10).

On the other hand, for the UTEs, it is crucial to raise the entry standards for teacher education, as their status depends primarily on such criteria. Consequently, the HEP does not want to alter the entry criteria of the general baccalaureate. However, in times of teacher shortages, the UTEs have to accept all willing students, a factor which conflicts with the policy of the UTEs. The whole question of self-selection into teacher education remains salient, and the representatives of the UTEs are aware that both the teaching profession and their training must be enhanced:

Malheureusement on est en situation, pas tout à fait de pénurie, mais en fort besoin en enseignants et la tendance à dire : "Il faut les prendre tous. Surtout de dire, vous ne les triez pas. Vous les prenez et vous vous débrouillez pour faire quelque chose avec". Bon j'ai rien contre, sauf que ça commence à coûter très cher. A terme j'aimerais pouvoir choisir les meilleurs. Ne serait-ce que parce qu'après l'activité est très exigeante. Si modification il doit y avoir, il ne faudrait surtout pas s'écarter de la règle qu'il faut un niveau maturité. [...]. D'ailleurs on a beaucoup d'étudiants qui viennent de l'université après coup. Il n'y a pas de raison pour qu'on ait systématiquement les moins bons. Je pense qu'il faut que ça devienne une question, non pas de plus ou moins grandes chances de réussite, mais une question d'intérêt pour un certain type de métier. Mais là aussi il y a beaucoup à faire pour revaloriser le métier d'enseignant. (RESP 046, 46)

*Member of the management of the HEP Vaud*

Furthermore, there is the constant dilemma between the needs and interests of the students geared to practical training and the occupational experiences in class and the requirements of an academic study programme. These are two quite different aspects which are not easy to reconcile. This UTE professor describes the typical teacher student as being not really interested in science and research. For the future teachers looking for practical know-how, research is not very helpful:

Ce sont les étudiants qui disent: 'La recherche ça me sert à rien. Nous, on n'a besoin de savoir ce qu'on doit faire lorsqu'on rentre dans la classe le lundi'. [...] La résistance elle est plutôt là et je dirais que c'est normal. C'est complètement idéologique de croire que la recherche s'applique à l'enseignement directement. (RESP 037, 53)

*Researcher at the HEP Vaud*

This statement reveals the discrepancy between the two systemic orientations, the research vs. practical perspective. But this contradiction makes also it clear that any further integration of the research function in teacher education and the development of a stronger scientific habitus become very difficult with a student clientele that is generally not interested in research.

### 13.9 Summary

After the first failure of the HEP Vaud to achieve nationwide recognition by the EDK, it became clear for most of the relevant actors that a decisive step had to be taken towards a real HEI at the tertiary level. There is no solution of an amended status quo, so to speak, a slightly upgraded teacher training college. Thus, the general opposition to a UTE at the tertiary level is very much altered. Furthermore, the procedure of including a very broad public in the conceptualization of the new institution of teacher education proved an effective means of integrating the different positions. Interestingly, the option of full integration of teacher education into the university was not a realistic one. Neither the key actors, i.e. the representatives of the different

HEIs favoured this option, nor the government, or the political parties. The general normative and cognitive orientations clearly provided for functional differentiation assigning scientific, disciplinary training to the university and profession-specific training of teachers to the UTEs.

With the draft law conceptualized on the model of the university, the institutional framework is ideal for the UTE to become a tertiarized institution. The fact that the new UTE has not been built based on the former models of normal school but rather on the university model is particularly noticeable and rather unique among the UTEs in Switzerland. As regards the organizational form, the new law provides for differentiation of teaching personnel which is characteristic of HEIs, with a UTE professor leading a small unit of teaching and research, hence responsible for training within a specific field, cooperating with lecturers and, in theory, assisted by research and teaching assistants. Although it has been subject to debate and controversy, the structure of the personnel is now firmly established and fixed; the categories are defined at the level of the law. Moreover, the organizational approach, with small units which are organized by discipline and thematic field and are responsible for research and teaching, seems well suited for establishing the link between research and teaching. However, there have also been organizational difficulties relating to administrative overload at the expense of the smallest organizational units, in particular the individual professors. These units, albeit not extensively endowed with resources, have no or only a few assistants for teaching, research or administrative tasks.

Yet the analysis also revealed a certain ambiguity that still prevails among the different actors as to the position and identity of the new UTEs. They do not count the UTEs among the UASs, but not the university either. Accordingly, most respondents described the UTEs as being a third type of HEIs of their own, characterizing it by an institutional form with both vocational and academic aspects. However – and this is an interest finding – several respondents perceived the actual institutional form of the UTEs as being rather transitory and felt the general tendency in the long term would be a development towards or integration into the university.



## 14 University of teacher education of North-Western Switzerland (PH FHNW)

### 14.1 Introduction

The University of Teacher Education North-Western (PH FHNW) is part of the University of Applied Sciences and Arts North-Western Switzerland (FHNW), funded by the four cantons in the north-western part of Switzerland: Basel, Basel-Landschaft, Aargau and Solothurn. The FHNW is one of the seven public universities of applied sciences (UASs) in Switzerland comprising nine schools in fields such as engineering, life sciences, economics, social work, music and teacher education.<sup>164</sup> The schools consist of various institutes, concentrated in four campuses, located in Aarau, Basel, Brugg/Windisch, Muttenz and Olten. This decentralized organizational structure reflects the different local backgrounds and traditions of the former institutions that were formerly independent institutions of the non-university sector in the four cantons. This decentralized, locally rooted tradition is even more pronounced in the case of teacher education; each of the four cantons had its own system of teacher education consisting of several geographically dispersed teacher training colleges. Teacher education was closely linked and adapted to the cantonal school systems. This tradition is still reflected by the fact that the University of Teacher Education North-Western (PH FHNW), which resulted from a merger of the UTE of the four cantons today, is still spread over six sites.<sup>165</sup> The plan, however, is to concentrate the school on only three campuses in the near future: Windisch, Muttenz and Solothurn.

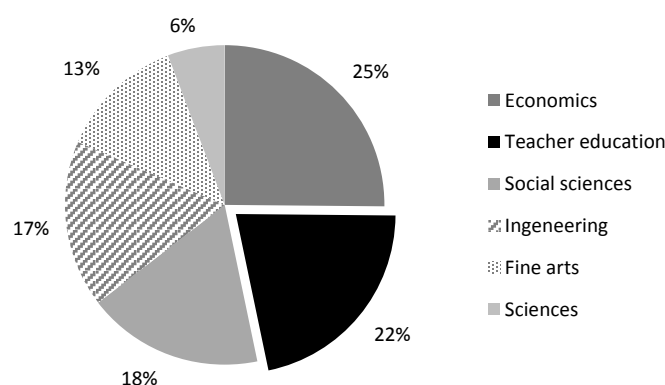
Today, with its 8,660 students, the FHNW is one of the major universities of applied sciences in Switzerland. The schools of technology, economics, social work and teacher education represent relatively large parts of the UASs. With roughly 2,000 students, the PH FHNW is the one of the biggest schools (22%) of the FHNW<sup>166</sup> (see Figure 14.1).

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<sup>164</sup> The FHNW is organized as a comprehensive university of applied sciences, covering different fields. The UAS is governed by the chairman of the board of directors of the nine schools.

<sup>165</sup> The six locations are: Aarau, Basel, Brugg, Liestal, Solothurn and Zofingen. In the first annual report of the merged UTE, the decentralized structure was justified by the argument that this organization would ensure the regional roots of the UTE: "Die Pädagogische Hochschule FHNW ist eine Flächenhochschule. [...] Sie gewährleisten die regionale Verankerung der Pädagogischen Hochschule in der gesamten Nordwestschweiz." (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 52)

<sup>166</sup> cf. Jahresbericht Fachhochschule Nordwestschweiz (2011)

**Figure 14.1: Students at FHNW by field of study (2011)**

Data: FSO

The PH FHNW is principally funded by the four owner cantons and contributions by other cantons based on the funds-follows-students agreements among the cantons,<sup>167</sup> amounting to 86% of revenue in all. Federal funds are only attributed to the UTE in the form of research funds by the Swiss National Research Fund (SNF). Third party funds come from study fees, private research funds, revenues from services and other revenues.

## 14.2 Tertiariation and integration of teacher education in North-Western Switzerland

Among the four funding cantons of the FHNW, the Canton of Aargau was the first to create a public institute for teacher training, in 1822.<sup>168</sup> In the second half of the 19th century and up until the mid-20th century, teacher education became more differentiated; different categories of teaching according to the differentiated school system received specific training at geographically decentralized locations.

It was not until the 1990s, parallel to the development in other cantons and at the national level, that the government of the Canton of Aargau launched a project to develop a new concept of an integrated teacher education. The goal was to integrate all the different types of teacher education in the canton into a comprehensive institution for teacher education. This process was accelerated by the creation of a university of applied sciences in the canton. Starting in 1992 with first initiatives to turn the technical schools into polytechnic colleges or universities of applied sciences, the cantonal parliament prepared an act on the creation of a cantonal university of applied sciences in parallel to the preparation by the national parliament. Priority was clearly given to the economic and technical department. Thus, the Canton of

<sup>167</sup> Interkantonale Fachhochschulvereinbarung (FHV) vom 12. Juni 2003.

<sup>168</sup> I.e. „Kantonales Lehrerseminar Aarau“ (Criblez et al. 2006: 98)

Aargau succeeded in establishing its own university of applied sciences for engineering, economics and design (i.e. those sectors that are regulated at the federal level) in 1996 and in 1998 a second university of applied sciences was created, containing the cantonal domains such as health and social work. In 1999, however, it became clear for the cantonal government that the two UASs would not acquire the necessary size or national and international standing to ensure their existence over the long run. Accordingly, the government proposed to merge the two institutions and to explore possibilities for cooperation with the neighbouring cantons (Criblez et al. 2006: 42f.).

Towards the end of 2000, the new concept for a comprehensive teacher education was adopted leading to the establishment of a university of teacher education. All these new institutions were concentrated within a rather loose structure of an intercantonal institution comprising the UASs of the four cantons of north-western Switzerland. The complete merger of the universities of applied sciences of the cantons of Aargau, Basel-Landschaft, Basel-Stadt and Solothurn into the University of applied sciences of North-Western (FHNW) was not implemented until 2006 (Criblez et al. 2006: 43).

The whole process of merging existing and successful local technical schools into a university of applied sciences with intercantonal ownership was difficult, and it was not easy to convince the relevant actors. The cantonal representatives feared the loss of influence through the concentration process, the loss of local sites. However, it was also clear that the implications of the developments in higher education at the national and international level for a relatively large canton that did not have any university, such as Aargau, were crucial. The canton simply could not afford to ignore these developments and not participate in the building of the universities of applied sciences at the national level.

Für mich als Bildungsdirektor, aber auch für den Gesamtregierungsrat war es daher von Anfang an klar, dass aus bildungs- wie wirtschaftspolitischen Gründen die Chance „Fachhochschule“ unter keinen Umständen verpasst werden durfte. Nur so konnten wir im interkantonalen Wettbewerb um wirtschaftliche Entwicklung und Standortattraktivität vorne dabei sein und bleiben.<sup>169</sup>

Economic reasons were thus decisive for the acceptance and the success of the reform process. Finally, there was the realization that, in terms of cost and quality, intercantonal cooperation to create a strong institution would benefit all of the cantons concerned (Criblez and Herren 2006: 39f.).

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<sup>169</sup> Former education minister of the Canton of Aargau, quoted in Criblez (2006: 38).

### 14.2.1 Creation of the University of Teacher Education of North-Western Switzerland (PH FHNW)

In 2006, teacher education for the four cantons of Aargau, Basel-Stadt, Basel-Landschaft and Solothurn was formally merged into the University of Teacher Education of the FHNW (Pädagogische Hochschule Fachhochschule Nordwestschweiz 2008: 52)<sup>170</sup>. Today, the PH FHNW comprises seven institutes covering teacher education from the preschool level to upper secondary as well as special needs pedagogy. Due to the merger of teacher education institutions at a regional level, the PH FHNW now figures among the largest UTEs in Switzerland.

The integration of teacher education into a university of applied sciences was not welcomed by all actors.<sup>171</sup> In particular, representatives from teacher education feared losing their special, exclusive status. They did not want to see teacher education as being only one subject among others at a UASs. However, the first director of the new HEI of teacher education argued that since teaching has lost its exclusive status in the modern knowledge society, there would not be any grounds for treating teacher education differently from other professions requiring higher education training:

Die Erfahrungen innerhalb der Fachhochschule haben gezeigt, dass es für die Lehrerinnen- und Lehrerbildung sehr wichtig ist, ihre Sonderstellung aufzugeben. [...] Der Lehrberuf soll und muss sich messen lassen mit anderen Berufen, deren Ausbildung an Hochschulen erfolgt. Er braucht den Vergleich mit diesen nicht zu scheuen<sup>172</sup>.

In the beginning, the integration into a university of applied sciences was perceived as positive for teacher education, since the new intercantonal ownership took teacher education away from tight control by a single cantonal government. This institutional framework entailed new autonomy which was appreciated (Criblez and Herren 2006: 109). However, the key challenge for the new institution for teacher education was to strike an appropriate balance between the requirements of academic teaching at higher education level and the need to train practitioners for the schools. This difficult situation between divergent orientations and system references was reflected by divergent and even paradoxical requirements provided by the cantonal or

<sup>170</sup> Staatsvertrag zwischen den Kantonen Aargau, Basel-Landschaft, Basel-Stadt und Solothurn über die Fachhochschule Nordwestschweiz (FHNW) vom 27. Oktober 2004/9. November 2004/18./19. Januar 2005.

<sup>171</sup> Summarizing the different positions as to the reform of teacher education, the government of the Canton of Aargau acknowledges in its dispatch: „Die Vereinheitlichung der Lehrkräfteausbildung sei zwar erstrebenswert, jedoch auch ohne Grossfusion erreichbar. [...] Von verschiedener Seite aus wird darauf insistiert, dass die Pädagogik auf die kantonalen Schulsysteme Rücksicht nehmen muss; [...] auf die Schwerpunktbildung an einem einzigen Standort sei für die Ausbildung von Lehrpersonen der Volksschule sowie für die Weiterbildung der Lehrkräfte zu verzichten“ Auswertung der Vernehmlassung, Beilage 4 zur Botschaft 04.294; Botschaft des Regierungsrats des Kantons Aargau an den Grossen Rat vom 27. Oktober 2004;

[http://www.ag.ch/grossrat/temp/c8somvrnggep3g3b2hu5cnlr4627239681049410\\_04038150.pdf](http://www.ag.ch/grossrat/temp/c8somvrnggep3g3b2hu5cnlr4627239681049410_04038150.pdf) [27.2.2013].

<sup>172</sup> R. Künzli, quoted in Criblez (2006: 96).

intercantonal regulations and the EDK regulations regarding the certification and recognition of study programmes at the national level, such as the entry requirements (e.g. general baccalaureate vs. professional baccalaureate; locally based training vs. the standard of a university level training (Criblez and Herren 2006: 96f.).

## **14.3 Integration of teacher education into the higher education system**

### **14.3.1 Supraregional integration of the non-university sector: Institutional setting and actor constellations**

The specificity of the situation in the north-western cantons<sup>173</sup> is that all non-university higher education institutions have been fully integrated into one inter-regional university of applied sciences. The federal provisions as to the creation of UASs, i.e. the declared maximum of seven UASs that would be approved by the federal government, drove the smaller cantons to integrate their non-university HEIs and to look for intercantonal cooperation. This process of integration took place over several stages and phases, starting with a rather loose consortium of different and relatively independent HEIs and moving towards an increasingly integrated institution. During this process, teacher education of the four cantons was finally merged and completely integrated into the University of Applied Sciences FHNW.

The institutional setting with a regulatory framework based on a treaty between the four cantons<sup>174</sup> significantly reduced direct control by the cantonal politics over the UASs and in fact increased the institutional autonomy of the FHNW. Today, there is not a single parliament which exercises control over its cantonal HEI. Direct supervision is delegated to an intercantonal commission accompanying the affairs of the UASs and thus responsible for all negotiations as to performance and service agreements.<sup>175</sup> Consequently, it has become much more difficult for any interest group to intervene in higher education politics in the form of some members of the cantonal parliament who were willing to be exploited and to adopt a specific actor's view. The new governance structure stipulates that all general service and performance agreements with the FHNW as well as the budget have to be approved by each of the four cantonal councils. And since the councils now can only approve or disapprove the budget and

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<sup>173</sup> Aargau, Basel-Stadt, Basel-Landschaft, Solothurn

<sup>174</sup> Staatsvertrag zwischen den Kantonen Aargau, Basel-Landschaft, Basel-Stadt und Solothurn über die Fachhochschule Nordwestschweiz (FHNW) vom 27. Oktober 2004/9. November 2004/18./19. Januar 2005.

<sup>175</sup> The four cantons of the treaty exercise joint control over the FHNW, but any resolutions must be endorsed by each of the four cantonal councils to be valid (§ 15, 2 Staatsvertrag FHNW). As a joint supervisory body, the four cantons installed an inter-parliamentary committee (IPK) comprising five members from each cantonal council (§ 16, Staatsvertrag FHNW).

the new performance agreements, the direct influence and room for manoeuvre for councillors is considerably limited. As a consequence, cantonal councillors regularly claim greater participatory rights. A member of the council of the Canton of Basel-Stadt complains:

Wir sind zu reinen Kopfnickern degradiert worden. [...] Für die vier Parlamente gibt es faktisch keine Mitbestimmungsmöglichkeiten. Am Leistungsauftrag müssten dringend Änderungen vorgenommen werden, doch das geht nicht, weil dieser an das Budget gekoppelt ist und man nur zu beidem Ja oder Nein sagen kann. Die Fachhochschule kann leider von den Parlamenten kaum beeinflusst werden.<sup>176</sup>

Consequently, the control of politics over the context and form of the curricula of the study programmes as to teacher education has been substantially reduced. This is a complete new situation for cantonal politicians, since they traditionally always had direct control over teacher training. For two of the four cantons composing the FHNW, the new organization of teacher education meant a twofold integration process: first, teacher education was upgraded to the tertiary sector and integrated on the cantonal level to a comprehensive institution of teacher education including all categories of teacher; and second, these new cantonal institutions of teacher education were merged on an inter-regional level and integrated into the new UAS of North-Western Switzerland (FHNW), where teacher education represents one of nine schools. From the side of cantonal officials, this development is described as a real advantage for the UTE. The interregional and institutional integration of teacher education led to a substantial gain in autonomy. The integration process of teacher education would not have been possible without the overall integration process of the FHNW.

Ich denke, einerseits hat die Integration der pädagogischen Hochschule in die Fachhochschule Nordwestschweiz der pädagogischen Hochschule im Vergleich zu den Vorläuferinstitutionen einen erheblichen Gewinn an Autonomie gebracht. [...] Die Vorläuferinstitutionen [...] waren relativ eng an die Verwaltung angebunden und standen auch unter enger politischer Beobachtung. [...] Kommt noch dazu, dass die heutige pädagogische Hochschule wieder eine ganze Reihe von Fusionsschritten in kürzester Folge durchlaufen hat. Und auch das wäre nicht möglich gewesen, wenn das nicht im Rahmen, der politisch gewollten, grossen Fusion der Fachhochschule Nordwestschweiz erfolgt wäre. (RESP 035, 4f.)

*Government official, Canton of Aargau*

### **14.3.2 Strategy of enhancing the scientific profile of teacher education**

The integration process of teacher education was accompanied internally by a consequent development towards a higher education institution of a university nature. This process is primarily initiated and driven by the new director of the merged PH FHNW. The director, a scholar with a university background, had a clear vision of tertiarized teacher education and was committed to transferring teacher education from its traditional, local status of a teacher

<sup>176</sup> Cf. Basellandschaftliche Zeitung, 11.12.2008.

training school to a real institution of higher education with an academic profile. This strong commitment of a further academic consolidation and scientific orientation<sup>177</sup> is a key element in the mission of the new director (cf. RESP 025, 37-38). He justifies this strategy by the international developments in teacher education. According to this line of reasoning, teacher education in most industrialized countries is organized at university level and backed by a strong reference to research in teaching and learning.<sup>178</sup> If one wants to avoid being cut off from this international scientific discourse in teaching and learning, the director of the PH FHNW argues, teacher education has to be installed at the university level. This having been said, he is also aware that this would contradict the given structural situation of the Swiss higher education system:

Wenn die PH FHNW sich auf Dauer [...] vom internationalen Diskurs, aber auch vom internationalen Arbeitsmarkt nicht abtrennen will, muss sie auf dieses [universitäre] Niveau gehen. Ich sehe keine andere Möglichkeit, wenn man wirklich das Niveau in der Lehrerbildung, wie es sich in Europa, aber auch in den USA und in Kanada etabliert hat, erreichen will, dann muss man dieses Ziel haben, sonst geht es nicht. Dem widerspricht nun die schweizerische Konstruktion. (RESP 032, 2)

*Director PH FHNW*

As the director of the PH FHNW sees it, the contradiction in the organization of teacher education in the Swiss higher education system is due to the fact that the UTEs are conceptualized as universities of applied sciences and thus form part of the non-university sector. As such, the PH FHNW does not have academic prerogatives such as the right to award doctoral degrees. Consequently, neither the UTEs nor the UASs can train their own young academics, a key element characterizing a university.

Formally, the PH FHNW is part of the University of Applied Sciences of North-Western Switzerland, and is thus treated equally as the other nine schools and academies of FHNW, also with respect to the categories applied by the Swiss National Science Foundation (cf. RESP 025; 6). Yet as an institution of teacher education, the PH FHNW has to align itself with the norms and accreditation system of the EDK, whereas all the other schools of the FHNW comply with federal norms pursuant to the Act on the UAS (FHG). These governance-related contradictions are characteristic of the UTEs integrated into the FHNW (cf. RESP 025; 4 and 46f.).<sup>179</sup>

With regards to its efforts to develop a truly scientific profile and to become an equal partner of the university, the PH FHNW is encouraged by the cantonal officials. In this respect,

<sup>177</sup> “Bezüglich meiner pädagogischen Hochschule ist ein klares Bestreben vorhanden, sich in Richtung Universität positionieren zu können“ (RESP 036, 2).

<sup>178</sup> Cf. Interview with the director of PH FHNW, in Aargauer Zeitung, 12.6.2008.

<sup>179</sup> A representative of the PH FHNW states: “[...] es gibt sehr viele Passungsprobleme” (RESP 025, 46).

the cantonal department responsible for higher education clearly supports the academic drift of the PH FHNW:

[...] da sind wir sehr überzeugt, dass das der richtige Weg ist, die PH FHNW unternimmt grosse Anstrengungen, um diesen gleichwertigen, aber andersartigen Status wirklich auch faktisch zu erlangen [...]. Und das bedeutet halt, sie muss im personellen Bereich zeigen, dass ihre Dozierenden Qualitäten haben, die vergleichbar sind mit den Dozierenden der Universitäten [...], dass sie mit der Universität auch Zusammenarbeitsvereinbarungen auf gleichberechtigter Basis abschliessen kann und dass sie Forschungserfolge hat, national und international [...]. Das ist für uns schon unabdingbar. (RESP 035, 7)

*Senior official, Ministry of education, canton of Aargau*

However, the position of the cantonal policy-makers is not very consistent in this respect. They support the academic development of the PH FHNW, but also want to adhere to the binary model of the higher education system and assign the UTEs to the non-university sector (RESP 035, 2):<sup>180</sup>

Von der Bildungssystematik her möchten wir sicher daran festhalten, dass es sich um den Typus Fachhochschule handelt mit speziellen Bedingungen [...]. (RESP 035, 2)

*Senior official, Ministry of education, Canton of Aargau*

At the same time, the idea of three types of higher education institutions is primarily advocated because of the cantonal funding of the UTEs and because of their specific collaboration with the universities (RESP 035, 10f.). Similarly, the chairman of the executive board of the FHNW, representing the UASs as a whole, defines the school of teacher education as belonging to the FHNW, implying that the PH FHNW is an HEI of the non-university type. He explains this definition by the fact that teacher education is characterized by strong reliance on praxis and the occupational field as well as by the degrees granted by a UTE (e.g. BAs with a direct qualification for the occupation (cf. RESP 024; 5). Contrary to the view of the director of the PH FHNW, from the perspective of the chairman of the executive board of the FHNW, teacher education meshes perfectly with the non-university world of the FHNW:

Der kulturelle Unterschied zwischen der PH und der Betriebsökonomie ist aus meiner Sicht nicht wesentlich grösser als der kulturelle Unterschied zwischen der Betriebsökonomie und der Musik. Die alten Konservatorien sind doch fast noch exotischer als die PH. Und die sind seit Jahren in der FH integriert [...] Es gibt viele Ähnlichkeiten: Zum Beispiel die Berufsorientierung; die PH hat eine sehr starke Berufsorientierung, [...]. Es geht immer um Menschen, in der Psychologie, der sozialen Arbeit, auch in der Lehrerbildung. (RESP 024, 23-25)

*President of the executive board of the FHNW*

<sup>180</sup> The definition of UTE as universities of applied sciences is often done with regard to the public opinion for the general opinion perceives teacher education as an education and training with a strong relation to the practice and would refuse a clear scientific orientation. Thus although problems of accordance between within the higher education system are acknowledged, representatives from the cantonal office prefer to define UTE as forming part of the UAS sector: "(...) mit dem Vorteil, dass es eben doch klar positioniert und in der Öffentlichkeit verständlich ist, dass es hier um eine praxisbezogene Ausbildung geht." (RESP 035, 13f.)



This statement illustrates the paradoxical situation of the positioning of the PH FHNW within the structure of the Swiss higher education system. Formally and from the ministerial perspective, teacher education is situated in the non-university sector of the higher education system. This view is shared by the general management of the FHNW, which does not see any problem in assigning teacher education to the UAS sector. On the other side, there is the self-image of the PH FHNW which positions itself in between the two types, namely “traditional universities” and “universities of applied sciences”, as a third and new type of HEI institution. Furthermore, by its sheer size alone, the PH FHNW occupies a special status within the UASs, for teacher education alone generates some 40% of the FHNW’s turnover. This situation creates tensions and conflicts that must be resolved in the context of the UASs (RESP 035, 6).

The conflict manifested in this situation is not so much the question of whether teacher education should be tertiarized and integrated within the higher education system, but rather where teacher education is to be positioned within the binary structure of the system. In this regard, the policy side does not see a problem with the non-university position of teacher education. Although teacher education and the other UAS disciplines are governed by different bodies of legislation (cantonal vs. federal) policy-makers view teacher education as a part of the UAS sector. Yet this conflict will only be heightened if the PH FHNW continues to pursue a pronounced strategy of academic drift. And the conflict will of course increase when the PH FHNW develops towards a university while it is organizationally subordinated to a university of applied sciences. In this respect, it is only logical for the president of the executive board of the FHNW to state that the integration of teacher education within the UAS world would be even easier if the entire sector of teacher education were under the responsibility of the federal government, as it is the case for the other UAS disciplines. Only then would the special status of teacher education change (cf. RESP 024, 25). On the other hand, only the status as part of a major intercantonal HEI ensures the necessary autonomy and distance from the political authorities that allows the PH FHNW to pursue a relatively pronounced academic strategy.

### ***The call for functional differentiation***

Contrary to the general understanding of the binary divide between the university and the non-university sector along the categories of fundamental vs. applied research, the director of the PH FHNW proposes a differentiation in terms of content and disciplines. Thus, he suggests a distribution of tasks, though not the usual differentiation into fundamental research vs. applied research but instead a functional differentiation by occupational field, disciplines and the like. For example, the regular universities would then offer the traditional studies in the subjects, whereas the universities of teacher education would provide all studies in the field of teaching

and learning. In other words, all training relating to knowledge transfer, to learning and teaching – e.g. pedagogy, didactics, pedagogical content knowledge (i.e. subject-related didactics) – would be offered by universities of teacher education. Consequently, the UTEs would be defined as a specific type of HEI, specialized and with particular competence in all teaching-related subjects:

Im Kontext dieser Bildungspolitik hat sich mehrheitlich in der Schweiz ein spezifischer Hochschultyp herausgebildet, dessen Kernkompetenzen im Bereich der Vermittlungsdisziplinen (Pädagogik und Didaktiken) liegen. Dadurch ergibt sich zwischen den Hochschultypen der Schweiz eine sinnvolle Arbeitsteilung in Forschung und Lehre. Während die universitären Hochschulen in erster Linie Fachwissenschaften umfassen, finden an Pädagogischen Hochschulen pädagogische und fachdidaktische Schwerpunktbildungen statt. (Forneck 2011: 38)

Such systemic differentiation would of course stand in contrast to the traditional understanding of the differentiation with a binary divide between research universities doing fundamental research and UASs focussing on applied research. This new understanding of the mission of the UTEs and their function within a higher education system would certainly trigger the resistance of the university departments of pedagogy and schools of education, for this would pose a threat to their existence. However, the PH FHNW argues that this conflict cannot be avoided if the UTEs are to enjoy genuine prospects as an HEI type of their own. Consequently, he rejects the concept of the universities acting as training institutions for the entire sector of teacher education, and he claims that the UTEs are recognized in their core competency of teacher education:

Die pädagogischen Hochschulen müssen an einer entscheidenden Stelle die Frage stellen. [...] Wenn dieser Hochschul-Typus eine Entwicklungschance haben soll, dann muss er in seiner Kernkompetenz anerkannt werden; dann muss es eine Arbeitsteilung geben. [...]. Für Kernkompetenzen der Lehrerbildung übernehmen die pädagogischen Hochschulen diese Aufgaben und nicht die Universitäten. Es macht keinen Sinn, das doppelt zu führen und Universitäten sozusagen als Ausbildungsinstitute für einen anderen Hochschul-Typus zu haben. [...] Wenn man Hochschul-Typen einrichtet, dann muss man auch ihre Kernkompetenzen anerkennen. (RESP 032, 18-26)

*Representative of the management of PH FHNW*

With this radical position, the PH FHNW stands alone among the universities of teacher education. This can also be explained by the different institutional settings of the various UTEs. Consequently, their prospects for developing as HEI differ considerably and do not lead to the same implications. But given the understanding of a tertiarized teacher education and its role as HEI of the PH FHNW, this strategy as to the position in the higher education system is entirely consistent. Furthermore, the PH FHNW has a clear ambition to emancipate itself from the political authorities and cantonal administration. Thus, the director of the PH

FHNW rejects the direct access of policy into the internal affairs of teacher education (strategy, curricula, personnel etc.).

Die Wege in die Bildungsdirektionen bleiben kurz, die Zugriffe auf die Hochschule weitreichend. [...] Die Akteure müssten einen zentralen Befund der internationalen Professionalisierungsforschung und -theorie aufnehmen, den Befund, dass es keine lineare Professionalisierung gibt, die eine Vermittlungswirklichkeit unterstellt, sondern dass das Verhältnis von wissenschaftlicher Sozialisation und Profession indirekter ist. Diese Vorstellung einer Linearität von ‚Ausbildung‘ und ‚Berufsqualifikation‘ bindet die Pädagogischen Hochschulen an die immer wieder wechselnden und kantonale verschiedenen Entscheidungen der Bildungspolitik, sie legitimiert direkte Eingriffe in die Hochschule [...]. (Forneck 2009a: 254)

Consequently, the PH FHNW did not respond to the political demands in times of teacher shortages to introduce fast track study programmes to attract more students to teacher education and in particular career changers on an unconditional basis. On the contrary, the PH FHNW created a special access procedure for career changers and older students with working experience, introducing a special part-time study programme for this clientele. But the PH FHNW does not award them with any sort of “light” teaching diploma. They might be employed by cantonal authorities in times of severe teacher shortages after having acquired only part of the training, but the regular, nationally recognized degree is awarded only upon completion of the entire study programme. In this way, the PH FHNW retains its autonomy and its responsibility for the quality of its study programmes as well as the quality of its graduates by maintaining its academic standards. This is rather unique as far as Swiss politics of teacher education are concerned. On the other hand, from the standpoint of the cantonal owners, the cantonal education ministries, due to their responsibility for the educational system have certain expectations and requirements as to the content and organization of studies at the UTEs:

Die Sondersituation kommt natürlich daher, dass die Träger in ihrer Funktion als Hüter der kantonalen Bildungssysteme bestimmte auch inhaltliche Anforderungen stellen an die Studiengänge. Das muss immer wieder neu verhandelt werden. Eben immer auch mit der Frage, was bedeutet das für die Hochschule? (RESP 035, 6)

*Senior official, Ministry of education, canton of Aargau*

For the cantonal ministry, the UTE remains a very particular HEI with a specific function for the cantonal education system. Furthermore, the canton now also expects the UTE, as a HEI with a research profile, to produce relevant knowledge for policy. The representative from the ministry acknowledges the autonomy of the UTE and admits that the PH will primarily represent the scientific perspective and does not adopt any political or other actors’ interests. In return, the UTE is expected to respond to social demands and to critically reflect them and to

advise policy on a scientific basis. Hence the position of the ministry of the canton of Aargau, given by the head of the higher education department:

Die PH ist für uns deshalb so wichtig, weil sie in dem genannten Lernprozess die Wissenschaft vertreten und deren Erkenntnisse einbringen soll – und zwar auch gerade dann, wenn diese allenfalls den Erwartungen der Politik und der Interessenvertretungen nicht entsprechen. In diesem Sinn erwarten wir von der PH, dass sie die real existierende Praxis und die bildungspolitischen Forderungen, die aus der gesellschaftspolitischen Diskussion erwachsen, kritisch auf der Basis der wissenschaftlichen Erkenntnisse reflektiert und uns entsprechend berät. [...] Gleichzeitig sollte die PH umgekehrt die gesellschafts- und bildungspolitischen Forderungen auf fachlich angemessene Weise aufnehmen. (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 50)

In the eyes of the teachers' organizations, the proximity to the occupational field and the relevance of teacher education at the new UTE for the daily work in practice count the most. On the other hand, the concern of the professional organizations (the organizations even more than the individual teachers) is that the institution of teacher education as a HEI should be of good quality and that education should have a high standing, as this enhances the image of the profession. In this regard, the teachers' organizations are interested in a high-quality, high-status HEI. They could even imagine having teacher education integrated at the university. For example, the president of a cantonal teacher association states the following:

[Bei der Lehrerbildung ist] natürlich die Frage [zentral], ob das Image der Lehrpersonen gestärkt oder geschwächt wird. Und diesbezüglich betrachte ich es als sehr wichtig, dass die pädagogische Hochschule in Bezug auf die Qualität der Ausbildung, aber auch in Bezug auf ihren Anspruch, eine Hochschule zu sein, wirklich top aufgestellt ist. (RESP 029, 2)

*Representative of the teachers' association, canton of Aargau*

Also with regard to the organization of education, the teachers' association is calling for the prolongation of studies with a master's degree for all categories of teachers. But the whole shift towards a stronger academic orientation as a HEI (including PhD study programmes in order to train its own personnel, more selective access, etc.) is coupled with the claim that teacher educators must have practical experience as teachers in the field. This is perceived as a question of authenticity (cf. RESP 029, 36).

### **14.3.3 Organization of research and development in teacher education: A new approach**

The upgrading of teacher education and its integration into the higher education system was primarily justified by the need to enhance the professionalism of the teaching profession by ensuring scientifically-based training of teachers. However, the formal HEI status of the newly conceptualized institutions of teacher education is not sufficient for achieving the desired

effects of a tertiarized teacher education. In this regard, the director of the PH FHNW argues that the new formal status of HEI must be accompanied within the higher education organization by a qualitative development. For this qualitative aspect of tertiarization, he uses the term “internal tertiarization” in contrast to “external”, i.e. formal, tertiarization (Forneck 2011: 38):

Nun ergibt sich die Wirkung einer tertiarisierten Lehrerinnen- und Lehrerbildung überwiegend nicht aus dem formalen Status. Aus letzterem eröffnen sich veränderte Möglichkeitsbedingungen, die die Pädagogischen Hochschulen auch wahrnehmen müssen. Dieser hier als «äussere Tertiarisierung» bezeichnete formale Status ist mit einer inhaltlich-qualitativen Erwartung an die neue Institution «Pädagogische Hochschule» verknüpft. Für diese inhaltlich-qualitative Dimension der Tertiarisierung wird hier der Begriff «innere Tertiarisierung» verwendet. (Forneck 2011: 38)

Forneck argues that teaching can only be professionalized<sup>181</sup> if the education of teachers has a real university character, i.e. when the teaching at a UTE is truly scientifically and research based. Internal tertiarization in the case of a UTE would then mean: an UTE is able to produce knowledge that meets the international standards of the discipline, which only guarantees access to the international scientific discourse and knowledge production. Further, only the production of such knowledge enables the UTE to implement scientifically oriented teaching (Forneck 2011: 39f.):

Hochschullehre ist wesentlich dann überzeugend, wenn Studierende mit Wissenschaftlern arbeiten, die Wissenschaft personal repräsentieren. Diese müssen zeigen, dass sie mit Hilfe wissenschaftlichen Vorgehens relevante berufsfeldspezifische Problemlagen bearbeiten können. Eine reine Rezeptionslehre ist keine angemessene Hochschullehre [...]. (Forneck 2011: 39)

This research is defined as a specific form of basic research, called user-related research (ibid.: 39)<sup>182</sup>. The role of research and development in teacher education is primarily to respond to issues at stake in the field of practice:

Forschung und Entwicklung an der Pädagogischen Hochschule hat also eine dreifache Aufgabe: Erstens muss sie den internationalen Standards der Bildungsforschung genügen, weil sie anders kein ernst zu nehmendes Wissen bereitstellen könnte. Zweitens muss sie die im Berufsfeld brennenden Themen aufnehmen, weil sie mit Blick auf die Praxis, in Kooperation mit dieser und nicht an ihr vorbei wirken soll. Und drittens muss sie die Ergebnisse so konkret wie möglich liefern, damit sie zur Verbesserung der pädagogischen Praxis tatsächlich beitragen kann. (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 29).

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<sup>181</sup> „Die Professionalisierung des pädagogischen Handelns stellt einen Prozess dar, in dem man lernt, auf wissenschaftliches Wissen und entsprechende Problem- und Lösungspraktiken zurückzugreifen, um eigene Fragen zu stellen, Sachverhalte zu analysieren und Probleme zu lösen.“ (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 9).

<sup>182</sup> “Will pädagogische Forschung zur professionellen Sozialisation beitragen, dann muss sie einen Zusammenhang von anspruchsvoller theoretischer Perspektive, empirischer Datenproduktion und didaktischer Konstruktion aufweisen. Pädagogische Forschung zeichnet sich durch eine geglückte Vereinigung von Theorie, Empirie und handlungsorientierter Konstruktivität aus, die in der Wissenschaftstheorie als nutzenorientierte Grundlagenforschung bezeichnet wird” (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 9).

Research in this understanding relates the theoretical perspective to the empirical production of data and didactic construction. Accordingly, pedagogical research represents a successful combination of theory, empirics and constructivity (ibid.).

***How to organize the link between training, research and the occupational practice?***

In order to enable an internal tertiarization, the UTEs have to establish an adequate structure enabling the structural link between teaching and research as well as between teaching and vocational experience (ibid.). The latter is important to note for in the logic of a tertiarized teacher education as per Forneck, new forms of practical and occupation-specific training will have to be developed (Forneck 2011: 49). It is a common criticism of an academic teacher education that there is not enough practical and occupation-related experiences and that the practical training elements were the most important and effective elements of teacher education. However, recent research on these issues raises doubts as to these assertions. Accordingly, the traditional internships in schools (i.e. the teaching experience of the student teachers) as part of traditional teacher training do not seem to have a real impact on teaching effectiveness (cf. Hascher and Moser 2000; Schüpbach 2006, cited in Forneck 2011: 49ff.).

Here, Forneck identifies one of the key challenges of a university-level, scientifically-based teacher education: scientific knowledge has to be transferred into the logic of practical action knowledge. The more effective this transfer, the higher the degree of professionalism in teaching. This is a completely new situation for the tertiarized teacher education at UTEs. The former teacher training schools did not face this situation since they only taught practical instructional knowledge that was repeated with the pupils in the school setting. But in the setting of a tertiarized teacher education, scientific knowledge has to be confronted with practical, occupation-related knowledge (Forneck 2011: 49):

Eine tertiäre Lehre impliziert auch eine veränderte berufspraktische Ausbildung. Nur dann lassen sich erziehungswissenschaftlicher, fachdidaktischer und fachwissenschaftlicher Wissenserwerb funktional d.h. professionswirksam aufeinander beziehen. [...] Die Pädagogischen Hochschulen stehen vor der Herausforderung, einen tertiären Praxisbezug erst noch entwickeln zu müssen. Folglich müssen tertiäre Formen der Praxiserfahrung in Hochschulen entwickelt und umgesetzt werden. Hier liegt eine der zentralen Herausforderungen des Hochschultyps Pädagogische Hochschulen. (Forneck 2011: 49)

In this respect, the task of HEIs of teacher education according to Forneck is to transfer problems, results and techniques produced by scientific discourse into a professional, occupational setting. Thus, a scientific approach to the occupational field can be followed and represented by researchers from teacher education. The relationship must be characterized by the division of labour: the schools represent the point of reference of schooling practice, the UTEs the point

of reference of science for the schools (Forneck 2009a: 253). Both fields are characterized by a different discourse that must accept to make exchange and cooperation possible.

Nur in dieser Differenzierung manifestiert sich ein angemessenes Professionsverständnis, nur in dieser funktionalen Differenzierung lässt sich eine sinnvolle Kooperation zwischen Hochschule und Praxis gewinnen. (Forneck 2009a: 253)

Furthermore, the PH FHNW initiated a practitioners' council comprising representatives of the different actors in the field of practice: teachers, school leaders, school councils and political school bodies. The mission of this council is to ensure communication between the school system and the higher education institution. The council is designed to provide feedback from the educational system, educational practice in the field, and address questions relevant for practitioners.<sup>183</sup>

#### **14.3.4 Competence centres as core cells of research and teaching**

The strategy of the PH FHNW is now to develop a scientific culture characterized by disciplinary discourses. In pursuing a clear scientific profile with a disciplinary culture, the PH FHNW defines itself as different from the occupational field and the practice of the schools. Thus, each discipline represented at a UTE contributes to the professionalization of the teachers and increases its autonomy (Forneck 2009a: 255). Based on this approach, the PH FHNW aims to create the structural conditions required to support the development of a disciplinary culture. This implies first of all that the PH FHNW enhance the discipline-specific aspects of educational sciences, subject-related knowledge and subject-related didactics within the curricula; and second, that study programmes be conceptualized on the basis of competency descriptions (which increases the autonomy of the lecturers). Consequently, 26 regionally diverse study programmes dispersed over some two dozen places and sites were reduced to fewer than 10 study programmes now offered at only five sites and covering all categories of teachers. Now, for each category of teacher, only a single programme is offered, and studies are centralized in such a manner that not every site offers the full range of teacher education. Finally, the PH FHNW introduced organizational structures suited to this approach. This led to the creation of research clusters or competency centres (called "Professuren-Teams") responsible for a specific disciplinary field (Forneck 2009a: 255):

Entwickelt wurde ein Professuren-Teamkompetenzenmodell, das im Sommer 2009 eingeführt wird. Kernidee ist, die verschiedenen Leistungsbereiche in einer Struktur zusammenzuführen und dabei den Fokus auf ein Team als Ganzes zu richten und nicht mehr auf einzelne Mitarbeitende, die alle Leistungsbereiche abdecken sollten. Professuren sind also disziplinäre Teams mit Dozierenden, Mittelbau-

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<sup>183</sup> Cf. Interview with the director of the PH FHNW in Aargauer Zeitung, 4.5.2012.

angehörigen und administrativen Mitarbeitenden, die Leistungen in der Lehre, in den berufspraktischen Studien sowie in Forschung und Entwicklung erbringen. (Fachhochschule Nordwestschweiz Pädagogische Hochschule 2008: 16)

This is the organizational solution that was chosen by the PH FHNW in order to allow a structural link between research and teaching. Research is no longer separated in rather isolated departments with specific research personnel that do not get in touch with the teaching activities of the UTE. The members of these teams are responsible for research as well as teaching within a specific and defined field:

Diese Teams bestimmen in einem definierten Bereich ihre Lehre in Zukunft selbst. [...] Die Professorenteams erhalten an der Pädagogischen Hochschule FHNW im Bereich von Forschung und Entwicklung im Rahmen ihres Institutsprofils einen Aufgaben- und Gestaltungsraum. Damit soll eine engere, also reale strukturelle Verbindung von Forschung und Lehre geschaffen werden. (Forneck 2009a: 255f.)

Thus, a certain number of centres for competencies were defined; their leading research positions were posted, internally and externally; and those interested had to apply. This new personnel policy introduced vertical segmentation and hierarchy within the organization and was accompanied by a process of selection that was not easy for the teacher educators already employed. These reforms meant quite a cultural change within the institution. The new hierarchy and the fact that long-serving teacher educators were not considered for new posts of professorship led to opposition and resentment among the personnel<sup>184</sup> (cf. RESP 036, 44-46).

The internal conflict escalated in 2008 when the commission of employees' representatives resigned en masse and made their allegations public via the local media. The critiques said that the pace of the reforms was too fast; that a majority of the personnel would not be properly informed about the reform strategy; that they would not understand them; and that they would not support them.<sup>185</sup> Via certain councillors, these critiques were expressed publicly and confused with unspecified discontent at the academic strategy of the University of teacher education. Advocates of traditional teacher education were put off by the concentration process and the harmonization of studies, hence the abandonment of certain traditional local specificities.<sup>186</sup> Thus, in two of the four cantonal councils (Basel-Stadt and Basel-Landschaft), serious opposition developed to the strategy of the PH FHNW and the person of its director.

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<sup>184</sup> In local newspapers, the views were spread that there was a climate of uncertainty and fear among the personnel: "Viele Mitarbeiter fühlten sich übergangen und hätten Angst, sie könnten bei der geplanten Forcierung der Forschung übe kurz oder lang nicht mehr gefragt sein und ihre Stelle verlieren." (Basler Zeitung, 4.9.2008).

<sup>185</sup> Cf. Basler Zeitung, 4.9.2008.

<sup>186</sup> „CVP-Grossrat O.I. befürchtet, dass beim Konzentrationsprozess von bisher 26 auf 9 Studiengänge die Qualität der Ausbildung nicht steigt, sondern eher sinkt. Bisherige Stärken, wie etwa der stark musische Schwerpunkt am Seminar Liestal oder die enge Einzelbetreuung der Studierenden durch Methodik- und Praxislehrkräfte würden einer „Gleichmacherei“ und einem sinnlosen Wettstreit mit anderen Schweizer PH geopfert [...]. Kritik an der „Verakademisierung“ der Grundausbildung der Volksschullehrkräfte kommt auch aus dem Baselbiet.“ (Basler Zeitung, 4.9.2008).



However, since the representatives of the two other cantons (Aargau and Solothurn) did not share this criticism, the opposition could not really impede the development initiated. This example shows how the influence and control of the HEI policy by cantonal councillors has been considerably limited by the intercantonal institutional setting. The chair of the board of the FHNW complained in a public statement, where he responded to the negative criticism, about the action taken by a group of employees that did not find internal support of their position to enlist politicians for their cause:

Der Fachhochschulrat beobachtet mit Sorge seit Monaten den immer gleichen Vorgang. Es scheint, dass einige Mitarbeitenden der PH, die intern mit ihrer Meinung (zuweilen auch nur für die Durchsetzung ihrer Interessen) keine Unterstützung fanden, sich an einzelne Parlamentsmitglieder wenden. Die so angesprochenen Politiker machen sich die ihnen zugetragene Meinung zu eigen und üben öffentlich Kritik.<sup>187</sup>

This strategy of a minority group unhappy with a new concept, with a reform strategy or a certain development, of finding advocates among the councillors, has been a very successful strategy in other cantons' reforms of teacher education. On the other hand, due to the academic drift the PH FHNW described in recent years, the HEI has become attractive for university graduates with the ambition of pursuing an academic career. The organizational model with competency models and professorship posts enables the PH FHNW to recruit scientific scholars who normally would only have chosen a regular university:

Hier hat ein Paradigmenwechsel stattgefunden, dass nun von den Universitäten her gewisse pädagogische Hochschulen durchaus auch aus universitärer Sicht als potenzielle Arbeitgeber vorstellbar geworden sind. Also es muss nicht mehr zwingend oder ausschliesslich eine Professur sein an einer Universität, es kann auch eine an einer PH sein, die ja dann vielleicht später einmal zur Universität führt und umgekehrt. Hier hat es eine grosse Veränderung gegeben. (RESP 030, 17)

*Representative of the PH FHNW*

Likewise, with regard to international student mobility, students of the PH FHNW, when they go abroad, are treated university students, and it makes no difference that in Switzerland the PH FHNW does not have the same status as a university (RESP 030, 15).

### **14.3.5 Institutional cooperation with the university**

The PH FHNW has established close collaboration with the University of Basel in the field of educational sciences. In 2007, the PH FHNW and the University of Basel agreed to establish a joint *Centre for Research and Study in Pedagogics*.<sup>188</sup> The stipulated goal of this centre was to

<sup>187</sup> Quoted in Zofinger Tagblatt, 16.3.2009.

<sup>188</sup> See <http://paedagogik.unibas.ch/studium>

ensure a broad offer of study programmes in pedagogics, research cooperation between the PH FHNW and the University of Basel, the introduction of a university master's programme in pedagogics, open to students of PH FHNW, and the scientific training of the teaching personnel of PH FHNW.<sup>189</sup> The University of Basel, which traditionally did not have strong competence in pedagogics, benefited from this cooperation since the chair for pedagogics was phased out a few years ago. With the joint research centre, the University of Basel got such a chair once again. Now, the PH FHNW co-finances this university chair and the research personnel of the centre. The costs are shared and amount to some CHF 1 million for the PH FHNW (cf. RESP 025). This collaboration gives the PH FHNW direct access to the university, so to speak. The UTE now has an opportunity to scientifically train its personnel at university level, to open up opportunities for further qualification of its personnel, in particular the possibility of a doctorate, and to offer academic master's programmes to able students.

However, the relationship with the university is not free of competition and attempts of distinction (RESP 032, 13; RESP 036, 14). Since the universities of teacher education do not have the right to award doctoral degrees, the PH FHNW depends on the university chairs in this respect. There are numerous researchers and assistants employed by the PH FHNW who are writing their PhD thesis, mainly supervised by PH FHNW professors, but only the university professors are formally entitled to supervise PhDs – a situation which is not attractive for the UTE for it has the investment without getting the general acknowledgment.

Wir arbeiten im Moment etwa an 90 bis 100 Forschungsprojekten, ein Grossteil davon in Kooperation mit anderen Universitäten. Es ist viel einfacher, mit deutschen oder österreichischen Universitäten zu kooperieren als mit schweizerischen. In der Schweiz befinden wir uns in der Situation, dass das Hochschulsystem am Entstehen ist. Und in dieser Entstehungszeit des Systems gibt es Distinktionen, und einen Kampf um ganz bestimmte Privilegien. Und die zentrale Arena der Distinktion ist das Promotionsrecht. [...] Das führt gegenwärtig zu der absurden Situation, dass wir ca. 50 Dissertationsprojekte unseres wissenschaftlichen Nachwuchses finanzieren - wir zahlen die Lohnkosten, die Daten stammen aus unseren Forschungsprojekten [...] - und die Universitäten schreiben das auf ihren Leistungsausweis, und wir betreuen die Leute auch noch. (RESP 032, 13f)

*Representative of the PH FHNW*

On a general level, it can be observed that the competition between universities and the UTEs for research funds has become more intense. Ever since the DORE programme, a specific funding programme for the UASs/UTEs of the Swiss National Science Foundation (SNF), was phased out, UTE researchers have been competing for the same funds as university research-

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<sup>189</sup> Vereinbarung zwischen der Universität Basel und der Pädagogischen Hochschule der Fachhochschule Nordwestschweiz betreffend die Einrichtung eines „Forschungs- und Studienzentrums für Pädagogik“ (FSP), 30. September 2007; Universität Basel: Strukturplan Pädagogik. Freigabe einer Doppelp Professur Fachhochschule/Universität. Beschluss des Rektorates Nr. 06.04.84 vom 4. April 2006.

ers.<sup>190</sup> The UTEs have an inferior starting position since a majority of the delegates represented on the research councils of the SNF are university professors (cf. RESP 036, 14; RESP 032, 38). Furthermore, it is difficult for UASs or UTEs to get research projects funded by the SNF without any cooperation with a university:

Wir brauchen die Universitäten, weil der Nationalfonds, würde ich mal behaupten, immer mehr so funktionieren wird, dass bezüglich der Verteilung der wenigen Gelder die informelle Steuerung so laufen wird, dass die Gelder möglichst an die Universitäten fließen, möglichst wenig an die Fachhochschulen. Das heisst, wir sind strategisch darauf angewiesen, diese Kooperationen einzugehen. Auf der anderen Seite ist es aber auch so, dass die Universitäten Interessen an uns haben, das ist nicht ganz einseitig, weil wir einen besseren Bezug haben zum Praxisfeld, und das zum Teil sehr attraktiv sein kann (RESP 036, 12).

*Professor at the PH FHNW*

At the moment, cooperation with the universities is crucial for the positioning of the UTEs and for the funding of research projects. In return, the access of the UTEs to the praxis field can be attractive for the universities and motivate them for cooperation. As for the quality level, the UTEs are well aware of the fact that their performance in research does not really equal that of the universities and that they still have a long ways to go to catch up. All these aspects show clearly that the UTEs are still in an inferior position vis-à-vis the universities (cf. RESP 030, 17; RESP 032, 19).

### 14.3.6 Recruiting strategies: Keeping quality requirements high

Consequently, the PH FHNW is pursuing the strategy of a selective HEI. As the director argues, only by increasing the standards and requirements for entering studies can one improve the status of the teaching profession. According to this strategy, the usual reaction by policy-makers in times of tight labour markets with teacher shortages, to lower entry standards, is detrimental for the profession and makes it even less attractive for gifted students. Likewise, standards for career changers with occupational experience are high in order to attract able students.<sup>191</sup> Yet, as the recruitment of students is concerned, the PH FHNW competes with the cantons of Bern and Zurich with regard to both the geographical location of the institution and entry requirements. With the concentration process, potential students from certain areas of the

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<sup>190</sup> „Das eine ist, dass die Forschungsräte fast nur durch universitäre Professoren abgedeckt sind, das muss man jetzt beobachten, wie sich das entwickelt, aber ich würde sagen, dass die Selbstrekrutierungsquote sehr hoch sein wird in den Forschungsräten. Die Distinktionsprozesse, die hier abgehen, die laufen schon länger, [...] und ich bin ganz sicher, dass hier Hierarchierungen und Ausschlüsse stattfinden werden“ (RESP 036, 14).

<sup>191</sup> Cf. Interview with the director of PH FHNW in Aargauer Zeitung, 4.5.2012.

cantons of Aarau or Solothurn might find themselves in a situation where Bern or Zurich would be nearer their home than the new campus of the PH FHNW.<sup>192</sup>

Wenn wir die PH im Aargau abziehen würden, gingen die Studierenden nach Zürich. Wenn wir sie in Solothurn abziehen, gehen sie nach Bern. Deshalb haben wir das Institut Oberstufe nun auch in Solothurn. [...] Mit jedem Studierenden, der nicht nach Bern abwandert, kann der Kanton Solothurn Beiträge sparen.<sup>193</sup>

Furthermore, the PH FHNW loses students to other UTEs when they offer study programmes with lower entry requirements or with a broader focus (e.g. a study programme covering all teaching levels at the primary school, whereas the PH FHNW undertakes a specialization into the entry level and the higher levels of the primary school).

## 14.4 Summary

The PH FHNW had quite a favourable starting position for integration into the higher education system. The institutional setting based on an intercantonal construction and integration into a broader higher education institution of the FHNW endowed the UTE with autonomy and a certain distance from political processes that allowed the present development towards a scientific HEI. The existence of the intercantonal cooperation with the creation of a common UAS in North-Western Switzerland facilitated the process of merging the teacher education institutions of the four cantons. Only in the wake of the major FHNW was it possible to develop an intercantonal UTE across four cantons without offering all studies at each site. This construction enabled a much deeper integration of teacher education at an intercantonal level than for instance the federation of three UTEs in Central Switzerland (PHZ).<sup>194</sup> The regional solution led to a greater distance of politics to the UTE. The complex intercantonal governance structure of the FHNW impeded politicians' direct access to the UTE and gave the management of the PH FHNW a certain amount of leeway to develop a specific profile without fearing being held back by pressure groups and interest-led policy interventions.

These favourable constellations plus the fact that there is no strong university player were ideal preconditions for the development of the PH FHNW. Only one of the four partner cantons has its own university. This is the Canton of Basel-Stadt with the University of Basel. But

<sup>192</sup> An analysis of the effect of the distance to study among Swiss high school graduates reveals that students prefer HEI situated nearby (Denzler and Wolter 2010b; Denzler and Wolter 2010a).

<sup>193</sup> Cf. Interview with the director of PH FHNW in Aargauer Zeitung, 4.5.2012.

<sup>194</sup> In the case of the UTE of Central Switzerland (PHZ), the UTEs of three cantons were integrated into a consortium with a common management, with each cantonal UTE keeping its own structure and management. This organizational structure proved to be rather difficult and susceptible to independent decisions on a single canton's authority. Thus, the canton of Lucerne, which provides the bulk of funding, recently decided to leave the intercantonal federation. As a consequence, the federation of the PHZ broke down, and each canton will once again run its own UTE.

since pedagogy and educational sciences have no long tradition and are not very well represented, the university does not represent real competition. On the contrary, only the cooperation with the UTE allowed the university to regain its chair of pedagogy. This constellation brings the UTE into quite a strong position vis-à-vis the local university.

Based on this concrete situation, the PH FHNW has now developed a pronounced strategy of academic drift. The goal is to position teacher education as an academic and research-focused HEI, just after the model of the traditional universities. Consequently, the organizational structure has been conceptualized after the university model with the introduction of professorships as disciplinary and thematically organized competency centres for research and teaching led by a scholar with a strong academic background. Due to this organizational structure, where the competency centres form so to speak the core cells of the institution and are responsible for teaching in their field, the UTE can develop a better and more consistent profile as a research and scientifically oriented HEI. And with the researchers at the head of the competency centres, the new strategy of the scientific orientation is well established and implemented within the HEI. Furthermore, the cooperation that takes place within the competency centres helps to develop a new understanding also at the bottom line (cf. RESP 026; 32). Yet the development of the PH FHNW has led to a demand for full academic prerogatives, such as the right to award doctoral degrees. For the time being, both the policy side and the cantonal administration are treating the PH FHNW as an UAS and therefore do not want to see the UTE introduce doctoral degrees.

In sum, the PH FHNW seems to be a UTE that has displayed a pronounced development as a scientific HEI with a clear academic ambition. The UTE has opted for a consistent strategy of positioning teacher education at the tertiary level and has shown convincingly what this would mean in terms of organization as an HEI as well as in terms of the structure of the higher education system. For in this perspective, teacher education claims its own exclusive status as an HEI for teacher education endowed with the full academic prerogatives. However, in its full consequence, this strategy could only be implemented by means of a radical change in the structure of the Swiss higher education system. For it is not plausible to introduce a functional differentiation only for the field of teacher education: other sectors that are now integrated within the UASs (the fine arts, music, social work or health for instance) would follow and require their own separate form of HEI. In such a case, the binary divide and the differentiation into a non-university sector that does not have the same rights as the traditional universities would have to be abandoned. All types of HEI would have the same opportunities as regards the range of studies and degrees offered. The system would thus converge towards a rather comprehensive form of HEI. But market forces and political regulation would determine

the degree of differentiation. However, a functional differentiation of the image of the PH FHNW could only be established if the political authorities were prepared to concentrate certain fields and disciplines, such as teacher education or social work, in one type of HEI. Without such a strong coordinative intervention on the national level, we would be confronted with a heterogeneous development of the higher education system and with the coexistence of a rather functional differentiation in some regions and a rather hierarchical differentiation susceptible to competition for status and prestige in others.

The present direction of the UTE has defined a clear strategy of scientific enhancement, and introduced – albeit in the face of internal and external opposition – small units for research and teaching, according to the university model of the professorships, and quite similar to the model of the HEP Vaud. However, compared with the HEP Vaud, this organizational choice is based to a lesser extent on a sound institutional and regulatory ground. In the case of the HEP Vaud, the structure of the personnel is defined by law, whereas in the case of the PH FHNW, the personnel categories are defined by directives of the management. Consequently, they could easily be modified under changed circumstances.

## 15 University of Teacher Education of the Canton of Thurgau (PHTG)

### 15.1 Institutional background

The Canton of Thurgau is located at the north-east end of Switzerland, bordering on Germany. It is a rural canton with some rather small urban centres. Teacher education has always been a major concern of local policy-makers. With the argument that the quality of the local schools could only be improved by enhancing the education of the teachers, the canton established a school for teacher training already back in 1833, even before creating its own high school in 1853.<sup>195</sup>

In the 1990s, the Canton of Thurgau had to respond to developments at the national level, aiming at the reform of teacher education and its integration into the higher education system. The direction towards higher education was clearly set, i.e. teacher education had henceforth to be organized at the tertiary level. Yet the Canton of Thurgau did not have any institution of higher education, neither a university nor a polytechnic. And since the canton had a long-standing tradition of teacher training, it did not see itself abandoning this task and letting its teachers be trained by other cantons. In this situation, the canton adopted a constitutional amendment enabling the creation of cantonal higher education institutions. This was the legal basis for creating its own university of teacher education. Only in this way was it possible for this small canton to keep its own teacher education. On an institutional basis, the cantonal council adopted in 2001 an Act on Tertiary Education containing the mission for the canton to create a university of teacher education (UTE). The need for a rather small canton to run its own university of teacher education was principally argued in terms of the supply of teachers for the local schools:

Durch eine eigene PH bestehen bessere Voraussetzungen, unsern Kanton mit adäquaten Dienstleistungen und einer genügend grossen Zahl an gut ausgebildeten Lehrkräften zu versorgen. Letzteres erweist sich besonders in Zeiten des Lehrermangels als vorteilhaft. Ich bin davon überzeugt: Eine erfolgreiche, gut funktionierende PHTG mit direkter Einflussmöglichkeit durch den Kanton trägt entscheidend zur Qualitätsentwicklung der Thurgauer Schule bei.<sup>196</sup>

*Senior official, Ministry of education, Canton Thurgau*

<sup>195</sup> Cf. the address by the education minister of the Canton of Thurgau at the 175<sup>th</sup> anniversary of the cantonal teacher education: "Ein Blick zurück: Aus der Geschichte der letzten 175 Jahre". Rede von Regierungsrätin Monika Knill, Chefin des Departements für Erziehung und Kultur, anlässlich der Feier vom 29. November 2008 zum 175-Jahr-Jubiläum der Thurgauer Lehrerinnen- und Lehrerbildung und zur Einweihung der Neubauten des Campus Bildung Kreuzlingen, p. 5.

<sup>196</sup> Quotation of the director of the cantonal office for compulsory schooling (Chef Amt für Volksschule und Kindergarten) in: Amt für Mittel- und Hochschulen, 2006, Ein Bildungszentrum für die Schule Thurgau, Informationen zur Abstimmung vom 12.2.2006.

Further important arguments were the direct influence on the education and training of the cantonal teachers – “[...] eine PHTG mit direkter Einflussmöglichkeit [sic] durch den Kanton [...]” (ibid.) –, a better connection of teaching and school practice, the induction of the local teachers, tailored continuous programmes for the employed teachers, but also the promotion of the new campus of higher education as an attractive employer and the general promotion of regional economic development.<sup>197</sup>

After a preparatory phase, the new University of Teacher Education of the Canton of Thurgau (PHTG) opened its doors in September 2003 for roughly 100 students of primary teaching. Two years later, the PHTG had already reached its full capacity of a total of over 300 students. This was considered as sufficient to ensure the supply of teachers for the local schools. However, the PHTG attracts students not only from other cantons, but also from neighbouring Germany. In 2005, the cantonal population voted for a credit of CHF 29.3 million to finance a new building designed to group teacher education together on a single campus. Since 2009/10, the PHTG has offered study programmes for all levels of teaching, from kindergarten up to high school (Gymnasium). Consequently, the number of students increased to 572 students in 2010, of whom 58% from the Canton of Thurgau (cf. Jahresbericht PHTG 2010).

## **15.2 Integration of teacher education into the higher education system**

### **15.2.1 Compromise with the local teacher training tradition**

Traditionally, teacher training in the Canton of Thurgau was organized in a normal school (teacher training seminary) at the upper secondary level. The training represented a specific upper secondary education leading to the primary schoolteacher’s diploma. With the new regulations on the intercantonal recognition of diplomas at the national level (EDK 1999a, EDK 1999b), it was not possible to keep this system any longer. However, the Canton of Thurgau managed to retain certain elements of this normal school tradition of teacher education. The normal school was turned into a specific high school with a fine arts and pedagogical profile (PMS) comprising an integrated first year of the new teacher education at the PHTG. This means that today, students with a baccalaureate from this pedagogical high school (PMS) can enter the second year of the study programme at the university of teacher education

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<sup>197</sup> It was argued that the presence of 300-400 students at the Campus of PHTG in Kreuzlingen would generate about CHF 4 million of the local GDP (Regierungsrat des Kantons Thurgau, 2005, Botschaft zum Beschluss des Grossen Rates vom 26. Oktober 2005, Amtsblatt des Kantons Thurgau, 2005, Nr. 49, p. 2632).



(PHTG). The reason why this model was – after intensive and long negotiations with the EDK – finally approved and why the PHTG study programmes, where PMS students can enter directly in the second year, secured accreditation from the EDK was the fact that students at the PMS have completed one year more than students from other high schools, since access to the PMS required nine years of schooling instead of eight as for the other high schools.<sup>198</sup> This advance in terms of total school years – as the argument goes – makes it possible to have occupation-specific training and preparatory lessons that students from other high schools only acquire in the first year at the PHTG. However, it must be borne in mind that the additional school year takes place at the lower secondary level. The high school programme (general baccalaureate schools) for the regular ones as well as for the pedagogical profile (PMS) takes four years. In other words, from an external point of view, it does not seem that PMS students acquire substantially more knowledge compared with the students of the regular high schools. But this specific local model of teacher education, the specific institution with a pedagogical high school assuming a lot of the first year teaching of the study programme of teacher education at the PHTG, certainly represents a creative solution for keeping to some extent the local tradition of teacher education at the secondary level. This model, called the “Thurgau model”, – though it was not easy to get it approved by the EDK – was one reason why the reform of teacher education with the creation of a university of teacher education at the tertiary level did not encounter the strong opposition as was the case in other cantons. When asked why there was not strong opposition to the project of a university of teacher education in the Canton of Thurgau, the head of the cantonal office for higher education responded that in his view, this was primarily due to the way in which the canton kept elements of the former model of teacher education:

Ich glaube, hier sind wir halt einfach politisch relativ geschickt vorgegangen, indem wir eigentlich der einzige Kanton sind, der die Vorteile einer seminaristischen Bildung nicht einfach gleich über Bord warf. Wir sind derjenige Kanton, der nach wie vor eine spezifische gymnasiale Ausrichtung hat, wo pädagogisch-psychologische Fragestellungen klar im Zentrum stehen. [...] Unser Profil ist voll und ganz auf die Lehrerbildung ausgerichtet: Die Schüler an der pädagogischen Maturitätsschule (PMS) machen bereits gewisse Unterrichtspraktika. In diesem Sinne haben wir eben eine Politik beschritten, wo wir sagen konnten, okay, wir wollen [...] eine Hochschule aufbauen. Aber wir schmeissen nicht über Bord, was sich seit 175 Jahren bewährt hat. Und mit dieser Verbindung, bei der wir ein Jahr dieser pädagogischen Maturitätsschule anrechnen können, hatten wir halt einfach den Goodwill der Bevölkerung. Es gab praktisch keine Opposition dagegen. Aber es war ein riesen Kampf mit der EDK. (RESP 043, 62)

*Senior official, Ministry of education, Canton Thurgau*

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<sup>198</sup> Total schooling years to general baccalaureate with the PMS option is 6 years of primary school plus 3 years of lower secondary school plus 4 years PMS (Pädagogische Maturitätsschule), whereas all other types of high school require 6 years of primary school plus 2 years of lower secondary school plus 4 years of high school (Gymnasium).

With the specific local model of teacher education, it was argued that the traditional approach to teacher training (i.e. by means of post-secondary level teacher training schools) could be kept to some extent and the canton could benefit from several advantages such as a longer preparatory phase for teachers, a better combination of general and occupational education, and in particular the assurance of a continuous number of students entering teacher education at the PHTG, for there are roughly 60% to 80% of graduates from the pedagogical high school entering teacher education at the PHTG. This fact facilitates the planning of the study offer at the PHTG and of course increases planning reliability. Furthermore, the teaching personnel of the PMS – i.e. teachers from the former teacher training school – now assume to a great deal the teaching at the new university of teacher education (PHTG).<sup>199</sup>

The Canton of Thurgau thus realized in a single reform process two important elements of the reform of teacher education: It upgraded teacher education to the post-secondary level (i.e. studies requiring a general baccalaureate) and organized it at the newly created universities of teacher education. This was achieved mainly by turning the traditional teacher education institution (i.e. the normal school at the upper secondary level) into a specific type of high school (PMS) and by equipping the new PHTG with teaching personnel from the traditional normal school.

### 15.2.2 Relationship with the political authorities

From the relevant actors in the system, after the new developments at the national level, politicians and policy-makers were challenged to find a feasible solution for keeping teacher education in the canton. If they wanted to keep their local teacher education, they had to transform it to the tertiary level and to create a university of teacher education. The tradition of the teacher training school was so strong that it was just unthinkable to completely abandon this institution (RESP 038, 2). The solution with the “Thurgau model” finally represented the option that keeps a maximum of the previous situation. Thus, for many politicians (councillors or members of a political party), the PHTG is often seen as merely a slightly upgraded teacher training school, but they do not really perceive it as an institution of higher education, as a *university* of teacher education:

[...] im Kanton Thurgau sind wir zwar eine Hochschule, aber von den Politikern im Kanton werden wir oftmals nicht als Hochschule angesehen, weil sie von uns eigentlich nur erwarten, als dass wir Lehrer ausbilden, und es kommt oft vor, dass sogar Politiker sagen, der Kanton Thurgau ist kein Hochschulkanton. (RESP 041, 16), *Representative of PHTG*

<sup>199</sup> „Die Ausbildung an der PHTG wird ferner hauptsächlich von Lehrkräften des bisherigen Seminars getragen“ (Pädagogische Hochschule Thurgau, 2004, Geschäftsbericht 2003).

Most of the politicians were glad that they finally could save the traditional normal school in the form of the pedagogical high school (PMS). Consequently, they do not really perceive their new UTE as an institution of higher education. It is only in the cooperation with the University of Constance that the politicians realize that the PHTG is a regular HEI and thus a potential partner of the neighbouring university (cf. RESP 041, 6). On the other hand, policy-makers are also proud that, for the first time, the PHTG has its own HEI (cf. RESP 043, 4).

For the teacher educators of the old institution, the creation of a UTE did not represent a real threat since they were transferred to the new institution. On the contrary, most of the teacher educators benefited from this upgrading to higher education status. The transfer of the old staff explains why observers and representatives of the new PHTG describe that the identity as a HEI is not really consolidated yet. Accordingly, the university habitus is not self-evident. A representative of the PHTG puts it this way: “We have not really become an institution of higher education yet” (RESP 38, 2). The overall perception is that this UTE has not arrived at the tertiary level yet (RESP 041, 2).

The political side clearly wants its local teacher education. For the cantonal school authorities, direct control over teacher education is a key argument for the local organization of teacher education. Besides the idea that the supply of teachers is better assured with a local UTE (cf. RESP, 86), policy and administration want to have their own institution of teacher education at their disposal when they have to implement curricula issues, commission evaluations, or conceptualize further education.

Wir fanden, dass die Lehrerbildung immer etwas sehr stark an den Kanton Gebundenes sei. [...] hier ist die direkte Einflussnahme absolut zentral. Ich meine, man sieht auch, wie die Leistungsaufträge respektive Leistungsvereinbarungen an PHs formuliert sind. Da nimmt man natürlich schon Einfluss [...]. Wenn es um die Einführung von bestimmten Lehrmitteln geht, oder um die Definition von Kompetenzen, die im Zentrum stehen. Wenn es darum geht, Weiterbildungen anzubieten, die spezifisch auf die Lage eines Kantons ausgerichtet sind [...]. Also es geht wirklich darum, die spezifischen Bedürfnisse eines Kantons der PH gegenüber deklarieren zu können und dort auch Lösungen einzufordern. (RESP 043, 82-84)

*Senior official, Ministry of education, Canton Thurgau*

This official summarizes this requirement quite clearly: he sees the canton as entitled to *demand* that the UTE respond to its specific needs and to call for solutions. This clear position of a principal who can order particular services is typical for the understanding of the cantonal authorities towards the local UTE. It does not correspond at all to the position they usually accord to other HEIs, for instance universities. But teacher education has a very different tradition; before being assumed by autonomous HEIs such as the UTEs, the former teacher training schools had a status as a special unit of the cantonal administration. Usually, the

directors of these normal schools were directly subordinated to the cantonal administration which then legitimately behaved as the principal. Cantonal politicians and policy-makers thus fear the institutional autonomy that UTEs now enjoy.

With regard to the recruitment and hiring of young teachers, local school bodies have a particular interest in the organization of the study of teacher education. They prefer for instance the traditional curriculum where primary school teachers are trained in all subjects. This makes the organization of the schools easier and more flexible. However, efforts to professionalize teacher education led to a certain concentration of subject-specific training. Today, most UTEs offer teacher training for the primary level with a specialization in a number of subjects. Thus, teachers are no longer trained for all subjects. This has led to fierce resistance from politicians, local school councils and conservative groups of teachers, who prefer to keep the all-around model.<sup>200</sup>

### 15.2.3 Institutional cooperation

Since the Canton of Thurgau does not have a university, cooperation with other HEIs was crucial for the development of the scientific basis of the new university of teacher education. The specific situation of the Canton of Thurgau is that no other HEI exists; there is no university, nor is there a university of applied sciences in the canton. Consequently, the PHTG did not have to face any competition from other local players of the higher education system.<sup>201</sup>

However, the small size of the PHTG<sup>202</sup> makes it necessary to invest in cooperation with other HEIs. In this situation, one would believe it self-evident that the PHTG would cooperate with another UTE in the region, e.g. with the UTE of the neighbouring canton of St. Gallen. There is indeed some cooperation activity between these two UTEs, but the relationship is also characterized by competition (RESP 043, 74). Instead, the PHTG prefers to cooperate with universities.

The geographically closest university to the PHTG is the university of the German border town of Constance, directly adjacent to Kreuzlingen, the site of the PHTG. Although this

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<sup>200</sup> Councillors of the Canton of Thurgau have just launched a parliamentary initiative asking the government to enlarge the variety and number of subjects that have to be studied. Teachers should again be trained in at least eight subjects (see Motion Senn: Umfassende Lehrbefähigung für an der PHTG ausgebildete Lehrpersonen auf der Primarstufe; GRG Nr. 08 MO57, 423). Even the rector of the PHTG admits that the „Specialization model“ has never been sufficiently well accepted: „Ich muss zugeben, dass unser Modell mit Studierenden, die nicht alle Fächer belegen müssen, bei kleineren Schulgemeinde nie auf volle Akzeptanz gestossen ist.“ (quoted in: Thurgauer Zeitung, 27.1.2012).

<sup>201</sup> In the words of the rector of PHTG: „Bei mir ist niemand, der mir auf die Füße tritt“ (RESP 041, 113).

<sup>202</sup> Even for the personnel at the PHTG it is a fact that UTEs with about 300 or 500 students are very small institutions and that it is difficult to realize a university habitus and identity when the institutes are too small. Thus, a representative stated: „[...] die ganz Kleinen, die sind unterkritisch, die haben weniger als 300 Studierende, und ich glaube, dass es für eine Hochschule im Grunde mindestens 1000 Studierende braucht“ (RESP 038, 6).

university enjoys excellent standing in the German higher education system, the educational sciences are not well developed. The university has a centre for teacher education for the upper secondary level (high schools). The study programme for teacher education comprises principally the subject studies at the respective faculties and some teaching in pedagogics, in pedagogical content knowledge and in didactics. But the university did not have a single chair for pedagogics and educational sciences.

This specific situation of the institutional setting entailed several advantages for the PHTG and brought it into an ideal position for cooperation. Since the two HEIs do not belong to the same higher education system, they do not compete for the same research grants or for the majority of the students. Consequently, aspects of status are not as dominant as they were with two types of HEI acting at the same place within a common regulation. Although it is clear that the PHTG appears as the junior partner, either HEI can enter projects of cooperation as autonomous actors backed by their respective political authority.

The key idea of the concept of institutional cooperation that the PHTG started with the University of Constance was to benefit from the complementary situation: if the PHTG wanted to extend its study offer to the secondary level, it needed the cooperation with a university for the subject training of secondary teachers and for the access to doctoral studies and larger research projects. In return, the PHTG offered the University of Constance access to its comprehensive teacher training programmes. Swiss students at the PHTG can complete studies in lower and upper secondary teaching. In these study courses, students get their disciplinary training (in two or three school subjects) at the University of Constance while their occupation-specific training takes place at the PHTG. Similarly, German students have the opportunity to complete teacher education studies for the primary and the lower secondary level at the PHTG. Furthermore, the PHTG developed together with the University of Constance a binational study programme for upper secondary teaching that started in 2007. All subject-specific teaching takes place at the university. Once they have acquired a masters' degree in a school discipline, students can enter the study programme for upper secondary teaching which takes place at the PHTG. The corresponding diploma is recognized in both Switzerland and in Germany.

Dieses Modell, dass man einen universitären Master in ein oder zwei Fächer machen kann und dann noch das Lehrdiplom - das gibt es in Deutschland nicht. Wir haben ihnen [den Deutschen] sozusagen Zugang verschafft, durch unser Lehrdiplom zu einem zweiten Weg zur Lehrerbildung. (RESP 041, 43)

*Member of the management of PHTG*

In 2008, a study programme for lower secondary teaching was introduced. Cooperation with the University of Constance is organized along similar lines: subject-specific teaching takes

place at the University of Constance, whereas occupation-specific and pedagogical, didactic teaching takes place at PHTG. The option for the PHTG of also offering a study programme for lower secondary teaching was particularly attractive for the Canton of Thurgau, since in the past the teachers for the lower secondary level, which still belonged to the compulsory school system, had to be trained in St. Gallen or in Zurich. With the new opportunity, the PHTG can attract more students, a factor which clearly helps ensure its survival as an HEI. With this cross-border institutional cooperation, the Canton of Thurgau is able to offer the full range of teacher education programmes at its own institution, the PHTG. This is a great advantage in the inter-institutional competition among regional UTEs.

The cooperation with the University of Constance also comprises the commitment for the university centre for teacher education. The Canton of Thurgau finances a professor for education sciences at the University of Constance. This cooperative professorship PHTG/University of Constance<sup>203</sup> combined with a junior professorship, enables the PHTG to have scholars writing their PhD thesis at the PHTG to be supervised by university professors at the University of Constance. This cooperation is mutually beneficial: the University of Constance gets a new professorship financed which did not exist before, while the PHTG gets the opportunity to offer all study programmes for the different levels of teaching and the possibility of institutionalized cooperation in research and in the training of doctorates.

Finally, since 2011, the PHTG and the University of Constance have offered a joint master's programme on early childhood. This is an ambitious project which involves the foundation of a second professorship at the University of Constance financed by the Canton of Thurgau as well as the amendment of institution-specific regulations in order to create the legal basis for conferring joint master degrees on behalf of both institutions. The program is organized within a network comprising the University of Constance (Germany), the University of Ulm (Germany), the University of Applied Sciences of St. Gallen (FHSG) and the Institute for the Study of Early Childhood Marie-Meierhofer Zurich. It is important to note that this programme does not form part of the official mission of the PHTG. The university of teacher education finances this programme by means of reserves that have been accumulated for the strategic development of the HEI. Indeed, the PHTG has been quite successful in creating a network of cooperation with the HEIs in the region, in particular with the University and the University of Applied Sciences of Constance, and thereby positioning itself as an attractive partner within this regional higher education network. The rector of PHTG identifies this as a clear advantage: "Wir haben die Chance, einen grossen und starken Hochschulstandort „Bo-

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<sup>203</sup> „Brückenprofessur PHTG/Universität Konstanz“, cf. <http://www.psychologie.unikonstanz.de/forschung/erziehungswissenschaft/home/mitarbeiterinnen/> [23.3.2012]

densee West“ mit der PH, der Universität und der Fachhochschule Konstanz zu schaffen, der für Schweizer und deutsche Studierende durchlässig ist.“<sup>204</sup> He therefore sees the strategic potential for the PHTG as much more in terms of cooperation with the HEIs of the border town Constance than with the Swiss HEIs of the neighbouring cantons such as St. Gallen or Zurich. The cooperation with the University of Constance implies much more complementing elements than competition. Thanks to its cooperation with the University of Constance, the PHTG can offer programmes of teacher education for all levels of schools, from pre-school up to the upper secondary level. This expansion of the study offer was an important condition for attracting more students and gaining importance due to the institutional growth. The prospects of the near future see the PHTG as nearly twice as big as it was initially conceptualized. This development also places the UTE in a better position when it comes to questions of concentration and mergers in teacher education within the eastern part of Switzerland. The rector thus asserts quite self-confidently that even in the case of mergers and concentration processes of UTEs in the east of Switzerland, Kreuzlingen, the place of the PHTG, would certainly be kept as a site of teacher education.<sup>205</sup> Similarly, the head of the cantonal office for higher education declares that it is not realistic that the smaller UTEs of Eastern Switzerland – e.g. Thurgau, St. Gallen and Graubünden – would be merged into a single comprehensive UTE (RESP 043, 80). Having its own institution for teacher education is seen as very profitable for the canton as a whole. It allows the canton to ensure a sufficient supply of teachers; the new HEI also enhances the identity of the small canton of Thurgau:

In den letzten neun Jahren hat sich gezeigt, dass der Thurgau von der eigenen Lehrerbildung profitieren und seinen Lehrernachwuchs auf der ganzen Linie sicherstellen konnte. Die Pädagogische Hochschule trägt zu Identität bei.<sup>206</sup>

*Senior official, Ministry of education, Canton Thurgau*

The strategy is to cooperate with other HEIs but from a basis of strength. The success of the cooperation with the University of Constance is probably due to the fact that this is a foreign university, as a representative of the PHTG states:

[...] das ist natürlich ein Supermodell, funktioniert bestens, funktioniert deswegen wahrscheinlich so gut, weil es keine Schweizer Universität ist, wo also alle Fragen von Abgrenzung, Konkurrenz, gegenseitig vorhandene oder nicht vorhandene Wertschätzung und so, überhaupt keine Rolle spielen. Da ist eben die Unabhängigkeit durch die Grenze, die da läuft, so klar gegeben, dass man es wieder leicht hat zu kooperieren, da wo es beiden nützt. Das ist eigentlich ein Idealfall. (RESP 023, 18)

*Member of the management of PHTG*

<sup>204</sup> Rector of the PHTG, quoted in: Thurgauer Zeitung, 27.1.2012.

<sup>205</sup> „Selbst wenn es Zusammenschlüsse geben sollte, wird Kreuzlingen als Standort erhalten bleiben.“ rector of PHTG, quoted in Thurgauer Zeitung, 27.1.2012.

<sup>206</sup> Thurgauer Zeitung, 27.1.2012.

### 15.2.4 Organizational choice to adapt to the research function

In the case of the PHTG, research and development was – like with other UTEs – assigned to a specialized extra unit. Since most of the teacher educators of the former teacher training schools were transferred to the new UTE but did not really have a research background, the research function had to be assigned to specialized personnel. Thus, researchers with an academic record were recruited for the research unit with the task of conducting research projects with a certain visibility. In the eyes of a researcher at the PHTG, this organizational choice has the advantage of being relatively efficient in producing good results in a short time. Further, this model is substantially less expensive because it is not necessary to create and build up a research culture from scratch:

Die Thurgauer haben gesagt: "Wir wollen schnell vorankommen in der Forschung, wir wollen innerhalb von fünf Jahren eine professionelle Forschung haben, die wir zeigen können, die quasi bestehen kann." Das konnten sie natürlich nicht aus dem alten Personalbestand entwickeln. "Dann machen wir eine Abteilung, wo nur Forscher sind, und die tun im Wesentlichen auch nur das." Wir machen sehr wenig Lehre, unser Auftrag ist nun wirklich einfach Forschung zu betreiben. Das ist eines der Modelle. Das hat den Vorteil, dass es schnell ist, es bringt schnell Ergebnisse, es ist relativ günstig. (RESP 038, 44)

*Researcher PHTG*

However, this concept entails the separation between the personnel primarily teaching and researchers. Both types of personnel have a different focus and orientation. The researchers are more externally oriented, while the teacher educators are more internally oriented. Some perceive these differences as relatively strong, as though they reflected two different cultures:

[...] das sind einfach verschiedene Welten, das ist so. Ich meine, wir von der Forschung haben eine extreme Aussenorientierung. Wir orientieren uns an den Standards der Forschung. Das ist relevant für uns. Wie viele Drittmittel bringt man, wo publiziert man, wo wird man eingeladen - das sind die Dinge, die zählen. Und diese sind alle unwichtig für die, die in der Lehre sind. Wir haben eine Aussenorientierung und die ändern eine Binnenorientierung und das gibt manchmal schon in einzelnen Punkten eher Meinungsverschiedenheiten [...]. (RESP 038, 60)

*Researcher PHTG*

This organizational separation between teaching and research makes it more difficult to establish the link between the research and the educational system which is one of the key characteristics of a university. The above described divergences between the researchers and the teachers again reveal the dilemma between the two systemic perspectives of the UTEs. Thus, such an approach to the organization of research probably tends to hinder the institutional development of the PHTG as an HEI (cf. RESP 041, 115).



On the other hand, even if all researchers are gathered in one department or unit, the research unit of a rather small UTE (with less than a dozen researchers) is still too small to achieve the critical mass required to operate effectively.<sup>207</sup> The rector of the PHTG admits that insufficient importance was attached to ensuring a homogeneous research field for the research unit. Instead, the few researchers they have now are from different disciplines. Although this interdisciplinary composition of the research unit might be an interesting characteristic, the disadvantage is that it is not possible to attain critical mass in at least one discipline to have a greater impact within the research community.<sup>208</sup>

Another problematic aspect of this organization with a separate research unit is the development of an institutional identity. If the researchers want to acquire reputation and recognition within the research community, they have to aim at international visibility with journal publications and congress participation. However, such an orientation runs the risk of conflict with the identity of an institution of teacher education open to the school system with its specific needs and with a close link to the practical needs of the student teachers.

Die universitäre Sichtweise verlangt: Die Forschung muss international sichtbar sein. Ihr müsst peer-reviewed Artikel in renommierten Journals publizieren, ihr müsst an Kongresse, ihr müsst in der höchsten Liga spielen mit euren Leuten. Und das verträgt sich dann schlecht mit der Forderung von Schulen: Könnten wir diese und jene Forschungsfrage einmal von euch geklärt haben? (RESP 041, 117)

*Representative of PHTG*

Similar dilemmas arise with the cooperation with the University of Constance. Although highly praised by the management of the institutions, those who closely collaborate with the university come to a slightly different assessment. Considering the conflict between a clear research orientation with international ambition and the requirements of the teaching obligations at the university of teacher education, a representative from the research unit at the PHTG describes the collaboration between an academically ambitious university department and the small local UTE as rather problematic:

In Begeisterung bricht man dabei nicht aus, weil diese Leute an zwei völlig verschiedenen Relevanz-Systemen exponiert werden. Einerseits die Universität Konstanz als Exzellenzcluster mit den höchsten wissenschaftlichen Ansprüchen und andererseits hier bei uns diese, sagen wir, eher Nacherziehungsaufgaben. [...] Diese Leute sind zerrissen, in einem enormen Spannungsfeld. [...] Das höre ich auch von anderen Orten mit ähnlichen Einrichtungen. (RESP 038, 20)

*Researcher PHTG*

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<sup>207</sup> „Man müsste in der Forschung verstärkt regional kooperieren. [...] Man würde mehr Effizienz erreichen, wenn man sagen würde, dass es an diesen 14 pädagogischen Hochschulen drei Forschungszentren geben würde, und man diese zusammenfassen würde.“

<sup>208</sup> RESP 041, 121.

The cooperation with the University of Constance is attractive for the PHTG for status reasons, and enables the UTE to circumvent institutional restrictions, e.g. to offer university master programs, which is not provided by the EDK regulations of the UTE. Yet on the level of the concrete collaboration, where the individual researchers have to cooperate, the institutional differences, the different functions and orientations arise and complicate the cooperation. From this perspective it is not clear how the cooperation with a university helps the PHTG to become a fully tertiarized higher education institution and to better link teaching and research.

### 15.2.5 Institutional development

As to the strategy of institutional development, the PHTG has declared the goal of developing the scientific qualification of its personnel, which implies teaching personnel with at least PhD qualification, a mid-level faculty (i.e. non-tenured staff and research assistants), and in the long run, the creation of professorships (RESP 041, 49). Part of this strategy is to acquire in the medium term the right to award doctoral degrees and to offer PhD programmes, provided however that there are sufficiently qualified personnel (i.e. teaching staff with a post-doctoral qualification). According to the rector of the PHTG, a first step in this direction could be joint PhD programmes together with a university (RESP 041, 103).

However, this strategy of increased academization contrasts with image of teacher education as a special case of higher education that does not fit into one of the two categories of the binary system. All representatives and respondents of the PHTG assign the UTE to a third type of HEI which does not correspond to either the UAS or the academic universities, although the representatives of the UTEs see the UTEs as clearly nearer to the universities than to the UASs.

Wir wollen einen Hochschultypus, der sich ausschliesslich mit erzieherischen, pädagogischen Berufen befasst, und wir wollen nicht den Fachhochschulen beigelegt werden [...] eine Hochschule, die eine Art dritter Hochschultyp ist, zwischen der applied science und den Universitäten [...]. (RESP 041, 18)

*Member of the management, PHTG*

The personnel of the UTE should be more differentiated with a PhD-qualification as the rule. However, the reality looks quite different. A representative of the teaching department admits that the academic qualification of the current teaching personnel differs according to the content of the course. Thus, in didactics or occupation-oriented courses, the academic requirements as to the qualification of the educators are lower than in research-oriented courses. And since teacher educators are required to have practical experience in the school system as well

as academic qualifications, the recruitment of the ideal teacher educator remains difficult. Furthermore, with this extra qualification, UTE distinguish themselves from the universities.

Natürlich gelingt es noch nicht, die Dozierenden mit dem Idealprofil zu rekrutieren, die gibt es schlicht noch gar nicht, das sind wirklich Einzelexemplare, die das so vorweisen können. [...] Aber es wäre einfach schlicht nicht zu leisten, dass alle Dozenten ein Doktorat haben. (RESP 023, 58f.)

*Representative of PHTG*

Representatives from the teaching department decline to recruit only university-trained teaching staff without practical school experience. They even fear teacher educators with an overly strong research orientation.

Also, wenn ich sage, wir müssen einen Entwicklungsschritt Richtung universitäre Verhältnisse gehen, dann würde ich nie dorthin gehen wollen, also ich würde nie dort landen wollen, sondern einen Schritt in diese Richtung gehen. Ich sehe ja doch an der Uni Konstanz: Im Zentrum steht die Forschung, und die Lehre hat einen schwachen Stand. [...] Aber wenn Sie eine Professur wollen, dann müssen sie einfach eine 30 Seiten lange Publikationsliste haben, und da müssen sie erst einmal zehn Jahre darauf hinarbeiten [...]. Und das will ich nicht. Ich will nicht, dass die Forschung diese Bedeutung erhalte für unsere Dozenten, denn [...] wir bilden hier vorerst ausschliesslich Lehrer aus. (RESP 041, 131)

*Member of the management, PHTG*

This is the dilemma: the UTEs want to recruit academically trained personnel, and for status reasons ideally even with a PhD, but they should not be narrow-minded and only academically-interested researchers but rather teacher educators with a school background as teacher and with a university education. In this respect, the UTEs tend much more towards a specific type of professional HEI. Although the PHTG does not exhibit a strong trend towards academic drift, there is a constant tendency among the wider public to express reservations and to criticize the actual development of the PHTG that regularly finds expression in the debates of the cantonal council at the issues of the annual report. The general perception is that the PHTG fulfils its mission well but there are always voices – as for instance this councillor – warning about teacher education that gets too far away from practical everyday reality in the schools:

An dieser Stelle sei einmal mehr darauf hingewiesen, dass insbesondere der Akademisierungsgrad bei der Ausbildung von Lehrpersonal für die Vorschul- und Basisstufe im Auge behalten werden muss. Die Frage, wie Schüler mit wenig ausgeprägten intellektuellen Begabungen ihre praktischen Fähigkeiten entdecken können, wenn die Lehrpersonen zunehmend aus einem rein akademischen Ausbildungsgang kommen, muss in das immer wieder angestrebte qualitative Wachstum der Ausbildung einfließen.<sup>209</sup>

*Cantonal councillor*

<sup>209</sup> Protokoll des Grossen Rates vom 15. Juni 2011, p. 32.

Similarly, other speakers warn that the education of the teachers must not become too much academic<sup>210</sup> and the fact that 10% of the teacher educators at the PHTG do not have own teaching experiences as school teachers is not welcomed.<sup>211</sup>

### 15.3 Summary

The institutional setting and the specific actor constellations of the canton of Thurgau lead to a very specific integration of teacher education into the higher education system. This specific situation is characterized by a strong tradition of non-tertiary teacher training and by the absence of other HEIs. Consequently, the new university of teacher education did not face competition from a local university involved in educational research or in the education of secondary teachers.

With the so-called “Thurgau model”, the Canton of Thurgau developed an EDK-compliant combination of tertiarized teacher education with elements of the former teacher training at upper secondary level. The personnel of the former institute was kept and complemented by a research unit assuming the new research function of the UTE. With the cooperation with the University of Constance, the PHTG ensured access to university level research and training. The success of the successively developed cooperation with the nearby German university of Constance lies in the complementarity of the two very different profiles and natures of the institutions. The PHTG did not develop any activities that the university considered as its core business. In other words, this foreign university did not feel at all challenged by the PHTG, which would after all have been attenuated anyway because of the separate national government regimes. At the University of Constance, educational sciences were hardly developed and the university only provided teacher education for the high schools.

The PHTG now clearly benefits from the academic status and prerogatives of the university and now sees itself in the comfortable situation of being able to offer the whole range of teacher education programmes, and additionally academic master’s programmes. These programmes could not be offered by the PHTG if it were not possible to purchase teaching services in the different subject disciplines from the university.

Owing to this cooperation with a university, the PHTG managed in a short time to position itself as a strong regional HEI of teacher education, attracting sufficient students and acquiring a respectable size without implementing any strong academization developments within the institution. The development of the PHTG cannot be described in terms of academic

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<sup>210</sup> Protokoll des Grossen Rates vom 15. Juni 2011, p. 33.

<sup>211</sup> Protokoll des Grossen Rates vom 15. Juni 2011, p. 33.

drift, and the UTE is not developing towards the university model. Rather, it exhibits a form of higher education institution that is still strongly rooted in the former tradition of teacher training but that has ensured its institutional survival by means of clever diplomacy with the EDK as well as pragmatic cooperation with foreign HEIs. Without the cooperation with the University of Constance, the PHTG would have been restricted to the education of the pre-primary and primary teachers, which would have severely impeded the development as university of teacher education in terms of size and academic status.



## 16 University of Teacher Education of the Canton of Zurich (PHZH)

### 16.1 Introduction

With a total of some 2000 students, the PHZH is one of the biggest universities of teacher education in Switzerland. Based on the revised Cantonal Law on the University of Applied Sciences (FH-Gesetz),<sup>212</sup> the PHZH is institutionally integrated into the University of Applied Sciences comprising a total of around 17,000 students. But this integration represents a rather loose federation of former independent institutions of higher education that have kept a high degree of autonomy. Today, the Zurich School of Applied Sciences (ZHAW), the Zurich University of the Arts (ZHdK) and the Zurich University of Teacher Education (PHZH), as well as a private institute, the Zurich University of Applied Sciences in Business Administration (HWZ), are joined in the holding structure of the Zurich University of Applied Sciences (ZFH). However, each of these four institutions enjoys substantial autonomy and decides on its own overall budget.<sup>213</sup>

### 16.2 Reforming teacher education: The example of the Canton of Zurich

The case of the canton of Zurich represents a good example for tracing the reform process of teacher education and the gradual conceptualization of a new teacher education as the outcome of a highly politicized process where various actors had to agree on different values and interests and to come to a compromise.

Based on a Cantonal Law on Teacher Education<sup>214</sup> from 1978, teacher education for compulsory school was highly fragmented and organized in several different and isolated institutes. Primary and lower-secondary teachers were trained at post-secondary institutes requiring a general baccalaureate for admission. The tracking of the lower-secondary schools was reflected in teacher education, where only the teachers for the higher ability tracks<sup>215</sup> got their discipli-

<sup>212</sup> With the revision of the Act on the UAS (FaHG) in 2007, the three schools “Zürcher Hochschule für Angewandte Wissenschaften” (ZHAW), “Zürcher Hochschule der Künste” (ZHdK) and “Pädagogische Hochschule Zürich” (PHZH) represent three autonomous institutions of the public university of applied sciences “Zürcher Fachhochschule” (ZFH).

<sup>213</sup> Whereas the FHNW is governed by a central management, in the case of the UAS of the Canton of Zurich (ZFH), each of the four member institutions has its own legislative basis (e.g. the Act on the UTE) and its own management by the rectors. Only specific overall issues are dealt with in the rectors’ conference, where the rectors of the three (only public) member institutions are represented.

<sup>214</sup> Kanton Zürich: Gesetz über die Ausbildung von Lehrern für die Vorschulstufe und die Volksschule (Lehrerbildungsgesetz) vom 24. September 1978.

<sup>215</sup> i.e. the lower secondary school track, called „Sekundarschule“.

nary teaching at a specialized institute at the university. The first study year was organized for all primary and the lower-secondary teachers at a comprehensive teacher training college. The teachers for pre-primary school (Kindergarten) as well as teachers for subjects such as house-keeping, cooking or needlework and handicrafts were trained at specialized institutes. However, entry requirements for these special branches of teacher training were lower than for general compulsory school teacher training. This fragmented situation and the differentiation into different categories of teacher was viewed as increasingly outdated and not compatible with national and international developments. Finally, also continuous teacher training was organized by a specialized institute. It was therefore clear for most of the actors in the field that teacher education needed to be reformed. Yet innovative and radical approaches risked rejection by the political authorities; reforms had to be planned carefully involving all relevant actor groups and constantly adjusted to national developments.

### **16.2.1 A first attempt to bring teacher education to the tertiary level**

The first initiative to establish a higher education institution for teacher education dates back to the early 1990s. In a parliamentary proposal by left-wing members, the cantonal government was requested to prepare the legislative bases for establishing a university of applied sciences for teacher education.<sup>216</sup> The proposal was motivated by the challenges of European integration and the new dynamics in higher education, such as for instance the announcement of the federal government to prepare a Federal Act on Universities of Applied Sciences. These developments, as the argument went, would also make it necessary to optimize teacher education and to bring the training and education of all categories of teachers into a single institution at the tertiary level where teaching, research and development could better cooperate.

Yet the education minister then did not want to accept the proposal and to attack such a reform. Therefore, he asked the council not to remit the proposal. He argued that the proposal only represented one possible option, i.e. the creation of a university of applied sciences, but that other options would have to be examined and that the preparation of such a reform would indeed need a careful consultation among all stakeholders.<sup>217</sup> Following this argumentation, the members of the cantonal council finally refused to remit the proposal in March 1993. One of the most controversial issues was the question of whether all categories of teacher were to be trained and educated at the same institution. And on this issue, for instance, representatives of the secondary teachers were strongly opposed to the idea of withdrawing their training from

<sup>216</sup> „Der Regierungsrat wird eingeladen, die gesetzlichen Grundlagen zu schaffen, damit im Kanton Zürich eine pädagogische Fachhochschule [sic] errichtet werden kann, welche die Aus- und Fortbildung der Lehrkräfte aller Stufen der zürcherischen Volksschule umfasst.“ (Motion Brändli/Gerber-Weeber vom 11. Mai 1992, KR-Nr. 143/1992.

<sup>217</sup> Cf. Reply of the government of the parliamentary proposal Brändli/Gerber-Weeber (KR-Sitzung vom 8. Juli 1992).



the university and allocating it to a new institution of teacher education, e.g. a university of teacher education.<sup>218</sup>

Not least because of the federal intentions of developing tertiary education in Switzerland, the cantonal minister for education appointed in September 1992 a committee mandated to evaluate the actual situation in teacher education and to develop recommendations for adapting teacher education to current national and international developments and for securing international recognition of diplomas. This committee comprised 27 members representing the ministry of education, the different existing institutes of teacher education, the university and teacher associations as well as some other stakeholders.<sup>219</sup> The committee's mission was to develop concrete proposals regarding different options that were first, the creation of an institution for teacher education comprising only pre-school and primary school teacher education; or to organise the education of all categories of teacher education at a comprehensive university of teacher education (Pädagogische Hochschule).<sup>220</sup> In the context of the developments in higher education and in particular in teacher education at the national and international level, the primary task of teacher education, which was represented on this committee by the majority of the members, was to redefine its new position within the education system.<sup>221</sup> In parallel to the work of the committee in the canton of Zurich, development at the national level is pursued with the discussion on the creation of universities of applied science that will be implemented following the adoption of the Federal Act on Universities of Applied Sciences (FHG)<sup>222</sup> as well as the project launched by the EDK to develop universities of teacher education (UTEs) via a mission statement in 1993 (EDK 1993b).

The committee presented a final report in 1996<sup>223</sup> outlining a new comprehensive institution of teacher education (university of teacher education). This UTE was intended to offer training for pre-primary, primary schoolteachers and the special branches teachers as well as the first study year of the lower secondary teacher education. For the further education of the lower secondary teachers, a separate institute at the university was suggested.<sup>224</sup>

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<sup>218</sup> In the Canton of Zurich, high school teachers, thus the teachers at general upper secondary schools, were trained subsequent to regular university studies (at Master's level) in a graduated study programme for 1-2 years. The teachers for the lower secondary level, however, were trained at an annex institute at the University (Sekundar- und Fachlehrerausbildung an der Universität Zürich SFA), but they were not enrolled at the University and their diploma was not recognized as an academic degree. Nevertheless, particularly this group of lower-secondary teachers draw very much on their "university status". Consequently, this category of teachers as well as representatives of SFA were strongly opposed to the idea of a unified institute providing training for all categories of teachers.

<sup>219</sup> Erziehungsrätliche Kommission "Zukunft der Zürcher Lehrerbildung" unter der Leitung von Erziehungsrat H.P. Fehr.

<sup>220</sup> Erziehungsrätliche Kommission (1996). Zukunft der Zürcher Lehrerbildung. Bericht und Anträge, p. 21.

<sup>221</sup> "Die Lehrerbildung ist aufgefordert, ihre Stellung im Bildungssystem neu zu definieren." Erziehungsrätliche Kommission (1996), S. 21.

<sup>222</sup> Bundesgesetz über die Fachhochschulen (Fachhochschulgesetz, FHSG), 414.71.

<sup>223</sup> Erziehungsrätliche Kommission (1996). Zukunft der Zürcher Lehrerbildung. Bericht und Anträge

<sup>224</sup> Erziehungsrätliche Kommission (1996). Zukunft der Zürcher Lehrerbildung. Bericht und Anträge, p. 29.

The solution of the committee was to merge the different teacher training institutes into a comprehensive UTE and to merge the training of the different categories of lower-secondary teachers within an institute at the university. Considering the fact that this proposal kept the difference between the primary and lower-secondary teachers, this solution finally represented only an adapted version of the status quo. But any reform that went beyond this seemed simply unfeasible, politically speaking. The results of the consultation process show this quite clearly: whereas among the different teacher training institutions a clear majority of two-thirds supported the idea of concentrating the training of all teacher categories within a comprehensive UTE or even that of organizing all training at the university, the political parties, local school boards and other stakeholders were clearly in favour of a comprehensive university of teacher education for all categories of compulsory school teachers. The idea of establishing teacher training at a specialized university institute did not find any support among the political parties.<sup>225</sup> Also, the local school boards stated that the education of the pupils and the clear reference to praxis had to be the central elements in teacher education, and advised against an exaggerated academic and scientific orientation in teacher education.<sup>226</sup> As a result, any reference to academic teacher training and a stronger scientific foundation for training is observed with great scepticism.

### 16.2.2 A new impulse for the cantonal reform by the federal developments

Meanwhile, the differentiation of the higher education system slowly took shape with the creation of a non-university sector. In 1995, the federal Parliament adopted the Federal Act on the Universities of Applied Sciences (FHG)<sup>227</sup>, and the Conference of Cantonal Ministers of Education (EDK) adopted the guidelines for the creation of universities of teacher education (UTE) that same year. Subsequently, the processes of reforming teacher education at the cantonal level has gained a new dynamic. Furthermore, the intercantonal agreement of mutual recognition of diplomas<sup>228</sup> was adopted in 1996 by the voters of the canton in a referendum. Joining to this intercantonal agreement finally motivated the reform of teacher education in order to comply with the intercantonal minimal standards for teacher education.<sup>229</sup>

<sup>225</sup> Erziehungsrätliche Kommission (1996). Vernehmlassung zur "Zukunft der Zürcher Lehrerbildung". Bericht, S. 2f.

<sup>226</sup> Es wird betont, dass "... in der Lehrerbildung die erzieherischen Aufgaben und der Praxisbezug im Vordergrund stehen müssten [...]. Und man warnt vor einer Verakademisierung der Lehrerbildung" (ibid., p. 9).

<sup>227</sup> Fachhochschulgesetz (FHG): [http://www.admin.ch/ch/d/sr/414\\_71/index.html](http://www.admin.ch/ch/d/sr/414_71/index.html) [accessed: 19.7.2012]

<sup>228</sup> EDK: Interkantonale Vereinbarung über die Anerkennung von Ausbildungsabschlüssen vom 18. Februar 1993.

<sup>229</sup> The minister of education argued exactly with this aspect when he justified the draft law in the cantonal council: The goal of the law is to enhance intercantonal mobility. Furthermore, the clear acceptance in the popular vote of the intercantonal diploma recognition therefore represents a mandate to create mobility within teacher education. The proposed law thus had to comply with the legislative framework created by the EDK. Moreover, the collaboration with the university will be facilitated once teacher education has gained higher education status. "Jetzt ist die Lehrerbildung praktisch auf der Sekundarstufe II, neu ist sie auf der Fachhochschulstufe." And finally, there has to be research in

In the late 1990s, the higher education sector of the canton of Zurich thus underwent substantial reforms: a new Act on the University was adopted in 1998. Subsequently, the foundation of a University of applied sciences was sealed by the adoption of the new Act on the University of Applied Sciences (FaHG)<sup>230</sup> by referendum in 1999. At the same time, the draft of a new Act on Teacher Education (i.e. the creation of a university of teacher education) was debated in the cantonal council.

The president of the parliamentary committee argued for the reform by referring to the nationwide trend towards upgrading teacher education to the tertiary level. Thus, the new Act on Teacher Education would be necessary to fulfil the new requirements for intercantonal diploma recognition. In order to comply with these regulations, a newly conceptualized institution for teacher education (pädagogische Hochschule) was proposed where all the former teacher training institutes would be grouped together. Consequently, equal entry requirements for all study programmes were suggested. Furthermore, and in accordance with the EDK guidelines, a comprehensive training for all types of lower-secondary teachers was conceptualized, abandoning the traditional differentiation between an academic training in a certain number of disciplines of teachers for the advanced tracks and general broad training of teachers for the lower ability tracks.

However, as the debates in the cantonal council revealed, these aspects of the proposed law were highly controversial. Right-wing and conservative parties rejected the law because they feared the end of the special character of the traditional comprehensive training of the secondary teachers for the vocationally oriented track, i.e. the lower ability students<sup>231</sup>. What is more, they objected to raising the entry requirements for training for pre-school teachers. In fact, these groups advocated the status quo; they wanted to maintain the traditional idea of teacher training as a practical training of specific skills that does not require any scientific foundation. Moreover, they feared latent tendencies in the school system, such as professionalization of the teachers; specialization, which runs counter to the idea of a all-round teacher responsible for all subjects; and the general tendency to increasingly refer to scientific knowledge. They argued in favour of practical training and the need for local schools to staff teachers able to teach all subjects, with the advantage for the pupils of having just one single teacher responsible for them; in general, they cautioned against heartless intellectual teaching.<sup>232</sup>

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teacher education: „Für die Anerkennung einer Pädagogischen Hochschule ist es zwingend, dass sie im Bereich der Forschung tätig ist; das ist bei den heutigen Seminarinen nicht der Fall.“ (Protokoll des Zürcher Kantonsrates, 6. Sitzung, Montag, 5. Juli 1999, p. 414).

<sup>230</sup> Fachhochschulgesetz (FaHG), amended in 2007 ([www.zhlex.zh.ch/Erlass.html?Open&Ordnr=414.10](http://www.zhlex.zh.ch/Erlass.html?Open&Ordnr=414.10)) [19.7.2012].

<sup>231</sup> Cf. the German term “Reallehrer”.

<sup>232</sup> Cf. minutes of the Parliamentary debate (Protokoll des Zürcher Kantonsrates, 6. Sitzung, Montag, 5. Juli 1999)

The idea of bringing training for all different categories of teachers together into one comprehensive HEI for teacher education has always been difficult in Zurich. Thus, during the consultation process concerning the EDK recommendations, Zurich asked for the possibility of creating UTEs for only a single category of teachers.<sup>233</sup> This would have been a simple way of carrying on with the existing normal schools for different categories of teachers (e.g. primary teachers, lower level of secondary I, housework, etc.).

### **16.2.3 The compromise: Combining teacher education for all teachers of compulsory school**

Finally, during the debates, the equal entry requirements for all categories of teachers were amended, and differentiation of the training of pre-school teachers was introduced with respect to access requirements. Thus, access to the study programme for pre-school was kept low. Students can enter pre-school teacher training without having a general baccalaureate; the diploma of a three-year upper-secondary training (i.e. the socialized baccalaureate) – as used before – would be sufficient. However, training of upper secondary teachers was kept at university, thereby retaining the differentiation of the categories of teachers as well as the hierarchy of status. The mission of the UTE was defined in rather general terms, and the requirement of the UTE to conduct research was mentioned as the fourth element of the general mission:

Die Pädagogische Hochschule bietet in Verbindung von Wissenschaft und Praxis Aus- und Weiterbildung an für Lehrkräfte der Vorschulstufe, Volksschule, Mittelschule sowie Berufsschule. Sie betreibt anwendungsorientierte Forschung (§ 3. Gesetz über die Pädagogische Hochschule).

Eventually, the law passed the final vote in the council on 25th October 1999 by 86 to 61. The unsuccessful parties and pressure groups subsequently called for a referendum, which was held in March 2000. In this votation, the majority of the citizens finally accepted the Act on the New Teacher Training, and thereby led the legal basis for the PHZH.<sup>234</sup>

## **16.3 Integration of teacher education into the higher education system**

At the time of the conceptualization of the Act on Teacher Education in the cantonal council, the question of where to position teacher education and the new UTE within the higher educa-

<sup>233</sup> Cf. EDK, 1994, Auswertungsbericht zu den Thesen Pädagogische Hochschulen, p. 10f.

<sup>234</sup> Referendum on March 12th 2000 with a majority of 55.2% of votes (cf. Statistisches Amt des Kantons Zürich; Rosenmund 2008).

tion system was not raised. The project, as it was proposed by the government and the experts' committee, defined the UTE as always being a UAS, according to the EDK recommendations (EDK 1995). The parliamentary discussion showed that the issue of the debates was the question of whether teacher education needed to be integrated within a comprehensive institution and which categories of teachers should be trained at this institution. There was no question of integrating teacher training into university. The creation of a UTE and the attempt to build teacher training on a scientific basis was already a major reform step that provoked fears of overly abstract and theoretical training. Although it was clear that teacher education needed to be reformed, there were still certain groups that tried to stick as much as possible to the status quo. And the status quo was characterized by strong differentiation between categories of teachers: high school teachers were trained at university; lower secondary school teachers did their disciplinary studies at university and were then trained at a teacher training college; while primary teachers completed a teacher training college.

The option of bringing all of teacher training to university had no chance in the political debates, and it was clear for the council that the newly conceptualized UTE was to be part of the university of applied sciences.<sup>235</sup> The distance from the existing institutions of teacher education to a university institute would have been too big, for already the idea of training teachers for primary levels at a university of teacher education at the tertiary level represented a substantial change in mentality. Thus, to sum up, positioning aspects as to the type of HEI and its position within the higher education system were not at stake in the conceptualization phase in the council.

### 16.3.1 Position and profile within higher education

About ten years after the conceptualization as a UTE, the PHZH is concerned with its profile as an HEI and with its position within the higher education system. As one of the major UTEs, the PHZH is quite self-confident as a HEI. It defines itself as one of the major institutions for teacher education and thus has the ambition of making an impact on the national level. Emphasizing these characteristics, the PHZH aspires to develop a unique and distinguishable profile as an HEI which makes it identifiable and distinctive from other HEI types such as the universities and the UASs (cf. RESP 027, 2f.). Consequently, the PHZH has developed a specific strategy of development as an HEI, balancing between the other local players, the university

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<sup>235</sup> "Natürlich wäre auch ein Lehrerbildungszentrum an der Universität denkbar gewesen. Der Vorschlag der Regierung schien uns aber vernünftig. Er unterstreicht, dass es an der PH primär um Berufsausbildungen geht." (Protokoll des Zürcher Kantonsrates, 6. Sitzung, Montag, 5. Juli 1999, p. 385). See also: Projektgesamtleitung: Schlussbericht zur Projektphase I, 2000, p. 15: "Status PH im Fachhochschul-Verbund".

and the ETH, as well as between politics and ministry and pursuing a positioning as a third type of HEI with an independent profile, and not imitating the universities or the UASs.

Wir bezeichnen uns als eine der grösseren pädagogischen Hochschulen und nehmen deshalb auch für uns in Anspruch, dass wir eine gewisse Ausstrahlung auf das Bildungswesen in der Schweiz haben. Wir wollen dies auch dadurch unterstreichen, dass wir uns ein Profil geben, das klar identifizierbar ist für die Mitbewerber in diesem Markt ersichtlich ist. [...] Es ist wichtig, dass wir uns am Leistungsauftrag, welcher die pädagogischen Hochschulen haben, zu orientieren versuchen und nicht einen bestehenden Hochschultypus, zum Beispiel universitäre Hochschule oder Fachhochschule, imitieren. (RESP 027, 2)

*Representative PHZH*

It is this independency and the characteristics of a specific thematic orientation that let representatives of the PHZH to argue in favour of forming a third and separate type of HEI (cf. RESP 045, 2). Yet there is no unanimous view among the representatives of the PHZH as to whether this third type would tend more towards the applied sciences side, i.e. the UASs, or rather towards the academic and scientifically oriented universities. Among the teacher educators, there are those that would like to see the PHZH develop more towards university, while others emphasize the occupation-specific character. However, the close relationship with the occupational field and school practice seems to be a constitutive element of the UTEs on which a relatively broad consensus exists. According to this view, teacher education is characterized by both the research and academic orientation as well as by the orientation to the practice. This also holds true for those researchers arguing for a stronger academic and research-based orientation for the PHZH, and they underscore that this occupation-specific orientation should not be neglected, as this represents a core element of teacher education. Thus, for example, the statement of a researcher at the PHZH:

Meine Idee ist, dass es durchaus eine Annäherung an die Universitäten sein darf auf der Ebene der Qualität der Forschungs- und Entwicklungsprojekte, dass es aber gleichzeitig immer auch auf das Berufsfeld bezogen sein muss. Das ist für mich ganz klar. Ich denke, es macht keinen Sinn, dieses Berufsfeld nicht mitzudenken. Also es ist sinnvoll, dass die PHs Forschung und Entwicklung machen im Hinblick auf das Schulfeld, so dass diese Profession wirklich auch unterstützt wird und dass sie sich aufgrund dieser Resultate weiterentwickeln kann und dass es Reflexionsmöglichkeiten gibt. Es ist sowohl als auch: eine akademische Ausrichtung, als auch eine Praxisorientierung [...]. (RESP 026, 36)

*Researcher at PHZH*

In any case, it has increasingly clear that neither a majority of the teacher educators within the institution, nor the public administration nor the political authorities would accept it if the PHZH were to take a strong academic drift. A clear academic development towards a university institute or even integration into the university, as it might have been a mid-term option for some of the researchers, is no longer an option. Politically, this would be just impossible.

Respondents and advocates of a stronger academic orientation have expressed a certain disappointment on this point (cf. RESP 028, 4).

Moreover, the PHZH has still not found broad acceptance among teachers and their organizations as a HEI also endowed with an academic profile and a research basis. In particular among teachers in the field, the PHZH still has a rather ambivalent image (cf. RESP 050). Furthermore, teacher organizations and politicians tend to adhere to the traditional approach to teacher education, as a researcher from the PHZH explains:

Zum einen würde ich sagen, hat die pädagogische Hochschule teilweise auch bei den Lehrerverbänden und Lehrerkreisen noch nicht diese Akzeptanz gefunden in dieser Ausrichtung. Und zum andern denke ich auch, dass es bestimmte bildungspolitische Gruppierungen gibt, die auch den Lehrberuf sehr stark mit Lebenserfahrung verbinden, wobei man die Berufserfahrung auch in direkter Involvierung in das Berufsfeld gewinnen, und dann den Beruf so erlernen kann. (RESP 045, 36)

*Researcher at PHZH*

But also among the teacher educators within the PHZH, there seem to be tenants of the former model with the normal schools, who favour a strong occupational orientation and do not really see the advantage of having a research department. This situation results in a rather diffuse and ambivalent self-image of the PHZH, not very well suited to defending its ambitious strategy of upgrading teacher education and gaining full academic prerogatives (cf. RESP 028, 102).

### 16.3.2 Actor constellation

The UTE of the canton of Zurich is the institution for teacher education of the canton, by the canton, and for the canton.<sup>236</sup> The institution is democratically constituted – by a cantonal act ratified by the people in the referendum – led and controlled by the cantonal council and government and in the service of the canton’s teachers. As an institution of higher education, the PHZH is embedded in a rather complex constellation at the local site. Actors such as the other HEIs also located in Zurich, the university and the ETH, affect the development of the PHZH as an HEI. These powerful and dominant HEIs are watching closely to see whether the PHZH challenges any of their prerogatives and privileges.

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<sup>236</sup> The characterization of the institutional setting of the UTE as a democratically constituted institution in the sole competence of the canton (and thus controlled by the cantonal council and the cantonal government, and in the service of the government and the people) is used with reference to the famous definition of democracy by Abraham Lincoln in his Gettysburg Address in 1863: “government of the people, by the people, for the people” White (2005).

### *Collaboration with the university*

Collaboration with the university has proven to be rather difficult and complicated. Representatives from the PHZH describe the University of Zurich as being rather reluctant to collaborate with the UTE; they perceive it as a tendency to distance itself from the others. For the university, the UTE is simply not a very attractive partner (cf. RESP 045, 16). Furthermore, opportunities for transition from the PHZH to the university are limited, and the access regulations for career changers are viewed as rather prohibitive (cf. RESP 027, 18). Finally, cooperation with the university is difficult with regard to subject-specific training. If the professors responsible for certain disciplines at the university want to define the scientific contents of the curricula of teacher education, this will of course cause conflict with the teacher educators in charge of curricula (cf. RESP 027, 22).

Another aspect is the fact that for the institute of education at the University of Zurich, the PHZH represents to some extent an actor with whom it competes for research funds and projects commissioned by the ministry. Although the PHZH is a mere junior partner, it nevertheless represents an additional player on the market and thus heightens competition (cf. RESP 028, 82).

The key issue affecting the relationship between the UTE and the university is of course the question of the right to award doctoral degrees. In this regard, most representatives of the PHZH argue that the UTE should get this right in the near future. Yet they are also aware that they are not really prepared at the moment. First, the research capacity would have to be built up; and there needs to be more qualified personnel at the PHZH, i.e. scholars holding a PhD or a post-doctoral qualification (cf. RESP 028, 104).

In the case of the PHZH, the proximity to the University of Zurich and the ETH entails a specific situation and makes the PHZH even more cautious when it comes to demanding this prerogative. For the time being, it seems that some sort of division of labour has been established as to doctoral education. Young researchers from the PHZH usually write their thesis with professors at the university, even if they are formally employed by the PHZH and working on PHZH research projects. On the other hand, respondents from the university (notably from the institute of education) are not interested in sharing this prerogative with the PHZH. This privilege is still an attractive advantage in the comparison with the PHZH. This holds true in particular for those responsible for training upper secondary teachers (cf. RESP 034, 32). The position of the ministry in this regard is rather reluctant. According to the responsible



official, the ministry rather considers assigning this prerogative in the near future to the higher education institutions in the fine arts<sup>237</sup> but not to the applied sciences or to teacher training:

In Zürich haben wir nun die Haltung, dass wir für die Künste darüber nachdenken, aber für die ZHAW eigentlich nicht und für die PHZH vorderhand auch nicht. (RESP 049, 30)

*Senior official, ministry of education, Zurich*

With regard to subject-related didactics, where the UTEs argue that they were the core disciplines of teacher education and that no reference would exist at the university, the ministry prefers seeing the UTEs cooperate with the university disciplines instead of establishing their own doctoral programmes (cf. RESP 049, 37f.).

### ***Proximity to the ministry***

Another aspect is the fact that the PHZH is the university of teacher education of a single canton. Consequently, the ministry of education, responsible for higher education, represents an important stakeholder and the distance to the administration is closer than for instance in other cantons with regional institutions of teacher education. Furthermore, the canton still runs a separate research department within the education ministry<sup>238</sup> responsible for research and development. In this respect, it shares this mission with the R+D department of the PHZH. The roles and competencies of this ministerial research department are somewhat unclear, and communication between the two is not very effective (cf. RESP 027, 30f.). From the UTE's perspective, it is argued that this governmental department should have been integrated into the UTE as in most other cantons. However, this did not happen, and the relationship between this department and the PHZH has not been clarified. In the view of the UTE, this situation is a real problem of governance.

Other respondents are quite frank. They state openly that the relationship with the ministry was not very good (cf. RESP 028, 84). To put it briefly, from the perspective of the ministry, the UTE is dealt with as the junior partner of the university. With regard to research by the

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<sup>237</sup> The line of reasoning behind this position is that in the fine arts (music, dance, graphic art), there does not exist any reference discipline at the university where one could write a PhD, and thus this educational option is missing. One could, however, argue on the contrary that only the existence of a scientific reference discipline at the university as a benchmark would guarantee the academic quality of PhDs granted by new HEIs such as the universities of applied sciences. It is rather doubtful how a PhD written by fine arts students at academies of art (where mastery in a specific performing art is the primary function), would meet academic standards equivalent to those of university cultural sciences, social sciences or the humanities. Given the primary function of the academies of fine arts, the claim for the right to grant doctoral degrees seems to be motivated much more by status considerations and international competition and is rather inconsistent with the Swiss tertiary system.

<sup>238</sup> Cf. Bildungsplanung, Bildungsdirektion Kanton Zürich:  
[http://www.bi.zh.ch/internet/bildungsdirektion/de/unsere\\_direktion/bildungsplanung.html](http://www.bi.zh.ch/internet/bildungsdirektion/de/unsere_direktion/bildungsplanung.html)

UTE, the ministry is rather sceptical as to its quality. And as for the consultation function, the ministry still misses concrete counselling and the provision of support in policy-relevant topics (cf. RESP 049, 22). When it comes to the question of access regulation, politicians and administrations have clear expectations for the UTE. In times of teacher shortage, for instance, the political authorities and the ministry ask for quick solutions. They expect the UTE to offer short cycle training for students who do not meet formal entry requirements. The PHZH has to fulfil *nolens volens* such expectations to some extent, even if it is clear that this is detrimental to the quality of the students (cf. RESP 045).

### *Differentiation of teacher categories – The special status of high school teachers*

Teacher education in the Canton of Zurich has its own specific historic tradition. Teacher education has always been differentiated by category of teacher: there have been various schools for training different type of teachers by subject category and by level of teaching. This differentiation was not fully abolished with the reform of teacher education and the creation of a comprehensive university of teacher education. As the analysis of the legislative process revealed, the idea of fully integrating the training of all teacher categories in the PHZH was doomed from the start. There was strong opposition to integrating the training of upper secondary level teachers into the PHZH. Thus, teachers for the general upper secondary level are still trained separately at the university. The principle that upper secondary teachers are trained exclusively at the university represents something of a ‘sacred cow’, as a member of the management of the PHZH explains:

Das ist eine heilige Kuh im Kanton Zürich. [...] Ja, das ist undenkbar, dass das [die Gymnasiallehrer-ausbildung] an die PH käme. [...] das wäre undenkbar, politischer Selbstmord, wenn das eine Bildungsdirektorin durchziehen wollte. [...] Da würden die Gymnasiumlehrer Sturm laufen [...]. (RESP 027, 152)

*Member of the management of the PHZH*

In a recent reform, the training of the VET teachers was transferred from the university to the PHZH. This change was possible because the VET teachers preferred receiving their training at the PHZH and not at the university. But the high school teachers<sup>239</sup> have a rather elitist self-perception; they tend to see the Gymnasium as the propaedeutic courses of the university, and consider themselves as the “small university”. Consequently, the representatives from the high schools do not consider the UTE as a possible option for their graduates. For the high school, only the university exists.

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<sup>239</sup> That is, the teachers of the general section of the upper secondary education, officially named General baccalaureate schools (Gymnasium/gymnase).

[...] es ist gewissermassen nicht opportun in den Gymnasien über die Lehrerbildung zu reden. [...] die Gymnasialvertreter bezeichnen sich gerne als "die kleine Universität", also "für uns gibt es nur den Weg in die Universität", und nun sind aber mit den Fachhochschulen und den pädagogischen Hochschulen weitere Wege offen, und das nehmen die einfach nicht zur Kenntnis, das wird einfach negiert. Hier haben wir ein Problem. (RESP 027, 118)

*Member of the management of the PHZH*

The fact that the upper secondary teachers, in particular the high school teachers, are firmly opposed to the idea of concentrating and integrating their teacher training at the UTE shows that there are strong status aspects at work here. High school teachers, trained in a specific subject at the university, thus consider that it would not be appropriate if they were trained at the UTE. In their eyes, training at the UTE would imply a loss of status. This differentiation perpetuates the status differences between university and UTE. Thus, the UTE in such a constellation cannot fully exercise its role as a specialized institution for the education and training of all teachers.

## **16.4 Adoption of the research function**

### **16.4.1 Role and function of research**

Research and development represent constitutive elements of the new HEIs for teacher education. First, according to the Federal Act on the Universities of Applied Sciences, research and development (R+D) are part of the mission of the UASs. The universities of teacher education have been conceptualized by the EDK following the model of the UASs and have thus also been assigned a research mission (EDK 1995: Art. B.2f.). Second, the establishment of R+D in teacher education is part of a general policy to professionalize teacher education and improve the scientific basis of training. Third, R+D in teacher education contributes to the professionalization of the teachers in the field, making it possible to identify new approaches to teaching and develop new solutions for an increasingly complex field. Fourth, R+D brings teacher education up to the tertiary level and establishes teacher education as a scientific partner of the other HEIs (cf. Schlussbericht zur Projektphase I, 2000).

Representatives from the PHZH define their role with a clear reference to the school system. Teacher education has to boost quality of the field of practice. Viewed from this angle, it is seen as crucial that teacher education keep a close relationship with the school system. Teacher education has to identify the salient issues of concern to teachers and local school boards (RESP 026, 4). Similarly, the function of research is defined in reference to the school system. Research at the PHZH shall pick up problems relevant for the occupational field,

consider questions asked by the actors in practice, find and reflect on possible answers. A member of the management of the PHZH put it this way:

Für mich ist klar, dass die Forschung in der PH eigentlich Situationen der Praxis aufgreifen, analysieren, Fragen der Praxis aufnehmen, Antworten finden und diese zurückgeben muss. Also idealtypisch sehe ich einen Wissenskreislauf, wobei wir in einem engen Kontext mit dem Schulfeld gewisse Fragestellungen vielleicht gemeinsam definieren, vielleicht sogar Elemente der Volksschule in die Praxis einbeziehen, und dort Fragen, die akut sind oder allenfalls auch für die Zukunft antizipieren, in Bezug auf mögliche Entwicklungen Lösungen entwickeln. (RESP 027, 24)

*Member of the management of PHZH*

Or quite similarly by another member of the management, who refers to a specific concept of teacher education, a teacher profile based on research: “Es ist ein bestimmtes Konzept von Lehrpersonenbildung im Hintergrund, wo eben die Forschung eine Rolle spielt, im Gegensatz zu anderen Modell, die man vielleicht früher hatte“ (RESP 045, 8). Besides this knowledge-generating function, there is also the important aspect of research as a constituent element of a higher education institution. Only the fact that the PHZH actively conducts research makes it an establishment of higher education. In this regard, research plays a key role for the status and position of the UTE, an aspect of which all the respondents from the PHZH are well aware: only research makes the PHZH a university:

Also die Forschung ist jener Anteil, der eine pädagogische Hochschule erst zu einer Hochschule an sich macht, sonst wären wir eine pädagogische Schule. Dies ist das wesentliche Reformelement im Vergleich zu den Seminaren [...]. (RESP 026, 18)

[Forschung spielt] eine zentrale Rolle bei der Konstituierung der PH als Hochschultypus. Zur Hochschule, würde ich sagen, gehört Forschung und eine Forschungsorientierung. Das ist von grosser Bedeutung für die Positionierung im Hochschulfeld. (RESP 045, 8)

*Researchers at PHZH*

The function of research at the PHZH is thus quite clearly defined, first, by referring to its role in the Constitution as a higher education institution; and second, by a role in the professionalization and support of teaching, according to the new approach whereby teacher education is to be based on research. Yet the discussion begins when it comes to defining exactly what kind of research a UTE is supposed to conduct. There is no consensus as to the research mission of UTEs, and even in the case of a single UTE, the PHZH, there exist a variety of opinions regarding this point. Many respondents suggest that the UTEs should be actively researching topics relating to the reality of the schools, while others use the term “applied research”, conceding however that this term has not been clarified with regard to educational research by the UTEs.

### 16.4.2 Organization of research at the PHZH

Seven different institutions for teacher education from the pre-school level up to upper secondary were integrated into the new university of teacher education. In terms of organizational form, a matrix was chosen with content- and disciplinary-defined departments on one dimension and the four performance sectors on the other dimension (initial training, continuous training, R+D, and services). The original concept of a matrix organization to establish the link between research and teaching has undergone several changes since the PHZH was established. It became clear that those responsible for the study programmes in the training department were not satisfied with the relatively high autonomy of the department for research and continuous education. Consequently, the matrix structure was abolished and the hierarchical line became the single structuring principle which gave the heads of the training departments more power. However, this new organizational structure made the research department even more remote and isolated from other activities within the UTE. The researchers reported that in fact, they enjoyed considerable autonomy and independence within the separate research department, but they also admitted that the link between teaching and research did not function properly and that the organization of the workload between commitments to research projects and teaching assignments used to be complicated and not easy to plan (cf. RESP 026, 48). Furthermore, there was a potential for conflict when lecturers for different units (research and training) with completely different educational backgrounds and views as to teacher training co-taught within the same course (cf. RESP 026, 58f.). The isolation of the research department was a fact and was also perceived by the management of the institution:

Ich würde schon sagen, dass sie [die Forschung] etwas abgekoppelt ist, auch durch dieses Modell, das wir ja hier in Zürich wählten, mit einer Forschungsabteilung und einem Prorektorat Ausbildung, wobei auch personell klare Zuordnungen in den einen oder anderen Bereich gemacht wurden. Es gibt in der Ausbildung einfach wenig Gefässe, die forschungsorientiert sind. (RESP 045, 42)

*Member of the management of PHZH*

The research function was restricted to specialized personnel. The proposition, at least in the early years, was to recruit the personnel for the research department externally and not start broad qualification programmes for existing personnel.<sup>240</sup> The R+D department was then invited to identify a few research core areas for strategic alignment. These focal points were defined as being in the following areas: languages teaching, aesthetic education, media education, schools as a system as well as historic educational research. However, these core areas stemmed from the specific interests and backgrounds of the research personnel rather than

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<sup>240</sup> Projektgesamtleitung: Schlussbericht zur Projektphase I, 2000, p. 123.

from strategic planning. As a result, a clear research profile was rather missing (cf. RESP 027, 78).

The management of the new UTE was well aware of the problem that research was isolated and that teaching and research would have to be linked in order to develop a truly higher education atmosphere. In the first annual report, the management defined the research mission with the following statement:

Kohärente Forschungs- und Entwicklungsprogramme schaffen durch die Vernetzung von Einzelprojekten die Grundlage dafür, dass Forschungs- und Entwicklungsaktivitäten nicht losgelöst von den übrigen Aufgaben der Lehrerinnen- und Lehrerbildung angegangen werden, sondern sich mit ihren Problemstellungen und Lösungsvorschlägen ins aktuelle Geschäft der Aus- und Weiterbildung einfügen und einen innovativen Beitrag zu einer erfolgreichen Lehrerinnen- und Lehrerbildung leisten. Darüber hinaus bieten sie die notwendige Basis für Forschungsverbünde mit anderen Hochschulen und die strategische Positionierung in der nationalen und internationalen Forschungslandschaft im Bildungsbereich [...] Gemeinsam mit dem Prorektorat Ausbildung sichert das Departement die wirksame Vernetzung zwischen Forschung und Lehre sowohl für Studierende als auch für Dozierende.<sup>241</sup>

The goal was clearly stated: researchers should collaborate with other departments in order to ensure the relevance of their research for the other sectors as well as for the field of practice. This overall goal, the continuous communication between research and teaching, the link with the occupational field, was stated subsequently in every annual report. The issue was discussed continuously, and improvements as to a better organizational solution to embed research in teacher education were proposed on numerous occasions. In 2006 this effort resulted in a reorganization of the matrix structure, whereby the research department was merged with the department for continuous training.<sup>242</sup>

### **16.4.3 A new strategy to integrate research and teaching**

In 2007, a new strategy for 2009-12 was adopted defining the perspectives for future development: The research profiles were to be focused and research expenditure was to be stabilized. Research services such as evaluation, counselling and the development of teaching materials were to be strengthened (Jahresbericht PHZH 2007, 9). From a strategic point of view, the position and quality of research is a crucial element of the UTE's profile. The annual report makes reference to R+D which meets international standards (Jahresbericht PHZH 2004, 9). The following strategic goals were set: (1) the research groups should be consolidated as to content, personnel and finances; (2) the degree of self-financing should be stabilized; (3) research should be systematically integrated into initial and continuous training, in counselling

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<sup>241</sup> Jahresbericht PHZH 2003, 26.

<sup>242</sup> Cf. Jahresbericht PHZH 2004, 9.

and school development;<sup>243</sup> (4) two research projects should be acquired per year, financed by the Swiss National Science Foundation; (5) integration into a European-wide network should be promoted; and (6) the position as a primary institution of educational research in Switzerland should be promoted (Jahresbericht PHZH 2007, 9).

Only recently, the management of the PHZH introduced a new concept as to how to establish this link between research and teaching. The idea was to create research clusters within the different departments that are responsible for research and teaching within a specific thematic field. The key elements of the new organization are these research clusters that are led by a newly appointed professor with a specific research assignment.

[Die] Forschung muss natürlich den Lehrern dienen. Diese Verknüpfung von Forschung und Lehre, die muss geleistet werden. Ich denke nicht, dass wir grosse Grundlagenforschung machen, das überlassen wir gerne der Uni, aber unsere Lehre muss forschungsgestützt sein. Und diese Verbindung von Forschung und Lehre muss in der PH drin geleistet werden. [...] Wir haben jetzt ein neues Modell, ein Cluster-Modell. Wir haben ein Forschungs-Cluster, und das hängt eigentlich zusammen mit dieser Reorganisation der Professoren-Reglemente. Neu wird im Kanton Zürich der Professorentitel nur noch vergeben, wenn jemand personale und eigentlich funktionale Bedingungen erfüllt. Die personalen sind klar, das muss eine Promotion sein plus Forschungserfahrung. Die strukturelle ist eigentlich die, dass er quasi ein Forschungsportfolio haben muss, er muss einen Forschungsauftrag haben. (RESP 45, 50)

*Member of the management PHZH*

This reform represents a radical change from the previous personnel policy, where teacher educators, lecturers at the PHZH after some years of tenure were awarded the title of professor.<sup>244</sup> The new regulation applies to all schools of the UAS Zurich, and will lead to a much more restrictive policy when it comes to awarding the title of professor. Each school, e.g. the PHZH, will have to set up a medium-term plan indicating which posts they plan to staff with professors. Consequently, henceforth only those scholars appointed to such a professor post will be awarded the title of professor.<sup>245</sup> And these titles are conditional upon personal and structural requirements: PhD plus a research record and a post with a research portfolio.

The separation into two units – teaching and research – featured a disadvantage: teacher educators with relatively heavy teaching workloads did not have the time to be actively involved in research projects; nor did they have the time or capacity to specialize and to explore a specific topic in greater depth. Consequently, their teaching has been closer to that of a high school teacher rather than that of a scholar at an HEI (cf. RESP 045, 50).

<sup>243</sup> „Die Verknüpfung von Forschung und Lehre soll einen hohen Stellenwert haben“ (Jahresbericht PHZH 2007, 9).

<sup>244</sup> The title of a professor at the PHZH was awarded by the government of the canton of Zurich and conditional upon the employment factor, tenure, the personnel research record (as a rule, a PhD was required along with research activities), but the regulation provided for numerous exceptions and so-called “equivalent educational achievements”, as a result of which there are many professors at the PHZH without even a PhD.

<sup>245</sup> Cf. the new regulation: Kanton Zürich: Reglement über den Titel der Professorin oder des Professors an der Zürcher Fachhochschule (vom 6. Juli 2010); 414.112.2.

The new research strategy of the PHZH has a top-down approach: the management of the PHZH has a clear desire to control and govern research activities. To this end, the management of the PHZH defines the disciplines and the fields where it wishes to create a research cluster. As a first example, the management of the PHZH has launched this process with a first research cluster in STEM (science, technology, engineering and mathematics). The different units – preschool/primary school, lower secondary school, continuous training and R+D – can now define specific professorships and issue tenders for such posts:

Wir haben nun ein erstes Cluster MINT gemacht. Hier definieren wir von der strategischen Seite, von der Hochschulleitung das Thema, und fordern die Leistungsbereiche auf, in diesem Oberthema MINT allfällige Professuren auszuschildern. [...] Und diese definieren ein Portfolio, das wird ausgeschrieben, sie können sich bewerben, und dann erhalten sie einen Leistungsauftrag für sechs Jahre. [...] Nach sechs Jahren schaut die Hochschulleitung hin und entscheidet, ob das erfüllt ist. [...] Wir gehen sogar so weit, dass wir sagen, wenn wir sehen, dass die Ausrichtung falsch ist, dann korrigieren wir sie entweder oder wir lösen die Professur im Notfall auf. Das Ziel ist ganz klar der Anspruch, Forschung steuern zu können. (RESP 027, 40f.)

*Member of the management, PHZH*

Furthermore, the new approach to research at the PHZH establishes the research clusters within the different units in order to facilitate knowledge transfer. The idea is that this positioning at the interface to practice will also enable better communication between research and the practice side; new research questions can thus be generated and addressed from the practice side to the researchers and vice versa, and research results can be directly transferred to practice (cf. RESP 027, 46). These research clusters are endowed with an initial funding, but must secure third party funds and quickly develop their own research portfolio within the given theme. There are also prospects for further development. If the cluster is developing fast, acquiring resources and attracting researchers, the cluster could be extended to a research centre or even a separate institute within this specific field. Such a centre would then also be able to integrate researchers from other UTE or closely cooperate with them – an attractive option for small UTEs for instance. By this time – as the respondent from the management believed – such a centre would have acquired the necessary research competence within a given disciplinary field and theme that would be suitable for practising doctoral education on its own account:

[...] das geht bis hin zu Zentren [...]. Und bei einer Einsparten-Hochschule, wie es die PH ist, müsste der Fokus meiner Meinung nach auf der Fachdidaktik liegen. Wenn nun dieser Cluster zu einem Forschungszentrum ausgebaut werden kann, [...] dann könnte eine Art Akkreditierungsbegehren gestellt werden für ein Promotionsrecht in diesem Bereich. [...] Aber das braucht Zeit, das muss aufgebaut werden. (RESP 027, 72)

*Member of the management, PHZH*



The research department with its research groups would coexist but be gradually replaced by more focused research clusters under the guidance of an appointed professor. The firm ambition of the management is to overcome the rather contingent and heterogeneous research practice that is due to the beginning of its existence as a HEI. The existing research groups date back to the start of the research department with a range of individual topics the first team of researchers merely brought with them as their personal research interests. Yet this was unsystematic rather than focused and coordinated. The researchers were independent and the link between the institution's strategy and the research activities did not function very well. The management of the PHZH has a strong desire to govern research, determine the general direction and set priorities. It expects increasingly focused research activities to boost research efficacy: "I want to set the direction" (RESP 027, 98), thus the statement of the director. And he is well aware of the fact that universities do not have the means to govern research in this way: "Wenn wir das schaffen, dann haben wir meiner Meinung nach einen Effektivitätsgewinn gegenüber den Universitäten" (RESP 027, 98f).

This new policy – this top-down approach to research – runs counter to the self-understanding of the researchers. Consequently, they complain about the lack of freedom in research; they find it tiresome that every project has to be accepted by supervisors and higher authorities:

[...] mein Eindruck ist der, dass es in den Fachhochschulen weder die freie Lehre noch die freie Forschung gibt. [...] Alles was Forschung in der Institution betrifft, braucht eine gewisse Akzeptanz der Vorgesetzten. Und das heisst, dass es natürlich sehr komplexe Prozesssteuerungen gibt [...]. Es hat einfach sehr viele Players, die mitargumentieren, mitsteuern, mitreden zu ganz vielen Zeitpunkten im Prozess [...], und es muss klar ausgewiesen sein, was der Nutzen eines Forschungsprojekts für die Forschung beziehungsweise die Lehre oder die Weiterbildung ist [...]. (RESP 026, 16)

*Researcher PHZH*

The management of the UTEs are faced with diminishing resources and must therefore ensure efficient allocation of resources. Naturally, such a policy also applies to the research department. From a general perspective, the UTEs need to better focus their research in order to have an impact and to be visible in the research community. And this can lead to new decisions concerning specific research topics, a factor which arouses opposition among the researchers.

In den pädagogischen Hochschulen war Ökonomie ein Fremdwort und nun da die Mittel geschmälert werden, muss man versuchen, mit den vorhandenen Mitteln ein Optimum rauszuholen, und da muss man halt einem, der irgendwie ein Orchideenthema hat, sagen: "Es tut mir leid, das liegt jetzt nicht mehr drin, wir müssen diese Mittel jetzt umleiten", und das ist natürlich schon etwas, das in Bezug auf das Forschungsverständnis Widerstände hervorrief. (RESP 027, 110)

*Member of the management, PHZH*

However, the present organizational structure seems overly complex and decision-making takes too long. Many processes are too bureaucratic. There were too many regulations, criticizes a researcher; research at the PHZH was “overstored”<sup>246</sup> (cf. RESP 028, 120). Above all, there have been too many organizational reforms and reorganizations at the PHZH. Researchers complain that there was never enough time to have a new structure settled and thoroughly implemented. They criticize the fact that the institution as a whole was too wrapped up in itself and wasted too much energy on reorganizations than on productive work:

Ich denke, es war nicht sehr förderlich [...], dass man in derart kurzer Zeit eigentlich [...] drei wirklich tiefgreifende Reformen machte. [...] Und das führte natürlich immer dazu, dass sich etwas nicht konsolidieren konnte und wir enorm viel Energie, Geld und Zeit investieren mussten, nur schon in die Organisation und wieder in das Umbauen und in das neue Platzfinden. In der Zwischenzeit waren andere Fachhochschulen schon längstens am Forschen und hatten Projekte gemacht und Entwicklungen eingeleitet inhaltlicher Art. [...] Also kurz gesagt hatte man sich einfach sehr viel mit sich selbst beschäftigt anstatt mit der Sache. Ich staune, dass überhaupt die Ausbildung irgendwie lief. (RESP 028, 114f.)

*Researcher PHZH*

Researchers at the UTE are often not understood by their colleagues in other departments. Teacher educators from other sectors often watch with envy as the researchers enjoy a great life, travelling all over Europe, not working like the others and doing worthless, highly abstract and detached projects that are not relevant to the day-to-work work in schools (cf. RESP 028, 38). Such caricatures of the researchers' role in teacher education do not help to facilitate communication between research and teaching. A defensive attitude towards research and science affects the work with the students, when lecturers argue against research and base their teaching primarily on their practical experience.

Diese, sagen wir einmal, Abwehr gegenüber Forschung oder Wissenschaftlichkeit ist etwas, das in unserer Profession inhärent ist [...]. Dann kommt es in gewissen Situationen zu wenig konstruktiven Auseinandersetzungen, wie man Wissen und Können verbinden kann oder wie man Forschung und Entwicklung, oder wie man Praxis und Theorie verbinden kann, und es läuft auf eine Verhärtung von Positionen hinaus [...]. Das kann sich konkret so manifestieren, dass dann einzelne Dozierende sehr stark praxisorientiert argumentieren und ein Stück weit auch die Studierenden instrumentalisieren, während die anderen einen nicht ganz einfachen Kampf führen, um das wissenschaftliche Niveau hoch zu halten, um den Ansprüchen an eine Fachhochschule zu genügen. (RESP 026, 58-60)

*Researcher PHZH*

This often latent conflict between research and teaching hampers the academic development of the whole institution.

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<sup>246</sup> „Das Problem sind diese administrativen Abläufe und diese verwaltungsinternen Vorschriften, diese finde ich sehr mühsam. Die ganze Forschung ist übersteuert [...]“ (RESP 028, 120).

## 16.5 Summary

To conclude, the PHZH is caught in a difficult integration process. Due to the political struggle for a reformed and comprehensive institution of teacher education, the academic profile and the position within the higher education system was never really clarified. For the past ten years or so, the PHZH was very much preoccupied with itself as an HEI. The organizational development of the PHZH is illustrative for the whole sector of the UTEs. Most institutions tried in the initial phase to treat research as an annex function with which they now had to comply just as other missions such as continuous training or services. Thus, research departments were created that developed a rather independent life of their own. The heads of these research departments had a mission to lead and guide the research activities, but in fact, they often could not really manage research and were limited to coordinate activities.

The experience with the organization of research and development at the PHZH starting with a matrix, going back to a hierarchical structure and the introduction of research clusters now illustrates the fact that the way in which an HEI adopts its research function is crucial for its development. The management of the PHZH has probably left research on its own for too long, trusting that it would find their way and that this would be sufficient. But in the current struggle of the UTEs within the higher education system, this no longer suffices. Consequently, the management of the PHZH has opted for a pronounced research strategy and is endeavouring to introduce research clusters.

However, with this policy change, the PHZH has to start again with a process of setup and development in research whereas other UTEs are already fully operating on such an organizational basis. This type of change of research strategy cannot be implemented without conflict among the existing research personnel, and it will take some time until the new approach becomes part of the organizational identity. Furthermore, the financial resources that will be transferred from the research department to the newly established research clusters will probably increase conflicts, as well the pronounced top-down bias of this policy. If this policy change cannot be implemented with the broad support of the middle management it will be difficult to establish an HEI strategy. And finally, on a general basis, who can guarantee that the management of a UTE will be able to make the best strategic choices as to the direction of the research clusters? And will these decisions be consistent with the development of certain disciplines?



## 17 Synthesis of the case studies

The different findings as to the function and role of research at the UTEs reveal that the new institutions for teacher education are still in a difficult and complex search for their identity. This process involves the position as HEIs within the higher education system (and on the local level within specific constellations of suppliers of higher education); the strategy as to institutional development; the function and role of research within teacher education, which heavily draws on the specific teacher profile; and organizational issues such as the structure of personnel or the organization of research and the way this is linked to teaching.

Comparing the four UTEs, we can conclude that none of these UTEs identify with the UASs' position. This means that the UTEs reject the official binary systematic of the higher education system and the assignment to the non-university sector. Generally, the UTEs tend to position themselves between the academic universities and the vocationally oriented UASs. They characterize themselves as being institutions of higher education with an academic approach as to research and teaching, but with a occupational perspective as to the preparation of teachers. Regarding the actor constellations, the situation of the four UTEs presents differently: some UTEs have a primarily cooperative relationship with the local university, whereas for some UTEs, the relation is rather characterized by competition. In general, the university does not accept the UTE as an equal partner.

Then, as to the relationship with the cantonal authorities, for some UTEs, government and administration fully back and support the young HEI and keeps close ties with teacher training. This is the case in particular for the smaller cantons that do not have other HEIs. Others perceive the closeness of the ministry and the critical attitude of the legislative authority as a hindrance to an academic development, because they fear the political influence on curricula and study organization. The UTEs have succeeded in varying degrees in assuring political support for the institutional development depending on the legal framework. Thus, the Act on the UTE of the Canton Vaud, for instance, defines the UTE in the image of the university as an institution of higher education, thereby truly establishing teacher education at the tertiary level. On the other hand, the concrete policy and strategy of the PH FHNW is principally defined by the management, and thus not backed by the legislative framework of the institution.

As a function of the cognitive orientation and strategic positioning of the UTE, the organization of research functions differently, either as a separate department or integrated within small units responsible for research and teaching in a defined field. The general tendency is towards institutional integration according to the classical university model. The case of the PHZH is illustrative in this regard: after several organizational attempts, the management of

the PHZH has now just introduced a new top-down strategy to better link research and teaching by establishing small competence centres. However, as has been shown throughout all four cases, the research function in teacher education has become increasingly important. Thus, all of the UTEs surveyed have enhanced their research profile or arranged for strong partnerships with local universities.

The table below (see Table 17.1) gives a summary of the key findings from the different case studies, controlling for cognitive orientation, actor constellations and institutional setting:

**Table 17.1: Comparison of case studies (overview)**

<i>Name</i>	<i>cognitive orientation; positioning</i>	<i>actor constellations</i>	<i>organization of R+D; structure of personnel</i>	<i>strategy for development</i>
HEP VD	third type HEI between academic university and vocational UAS	partner and concurrent of local university; position of UTE and legal basis according to University as political decision	integration of R+D within small units; differentiation of personnel	differentiation; third way of HEI; autonomization from ministry
PH FHNW	strong academic ambition by the management; aspiration for university model; ambivalent attitude by political side	intercantonal governance; UTE part of UAS; university as partner;	integration of R+D within small units; differentiation of personnel	differentiation; transformation by internal tertiarization and personnel policy
PH ZH	third type HEI between academic university and vocational UAS	partner and concurrent of local university; proximity to ministry; popular fears of academization	separate organization of R+D; new top-down strategy to integrate research and to control research	development and enhancement of research function
PH TG	teacher education between traditional approach and tertiarization	neighbouring university as partner; long tradition as HEI for the canton; full support by ministry	separate organization of R+D, coupling with university department	moderate academisation by reconciling academic and practical approach

The analyses of the four specific cases have revealed a heterogeneous picture of the UTEs' context in terms of cognitive orientation, institutional setting and actor constellations. This allows to better understand the UTEs' self-perception, their strategies for positioning themselves within the higher education system, and the concrete constellation they find themselves confronted with other actors. However, there is a missing link: what about the students as the system's clients? How do the students in teacher education fit into the UTEs' new strategy of enhancing their research profile? Are teacher students interested in a stronger academic orientation of their studies? Or do they on the contrary prefer practice-based teaching? These questions shall now be addressed by means of analyses of micro-level data on students' career choices.

## 18 Students' self-selection into teacher education: A micro-sociological analysis

An analysis of policy changes from an actor-centred perspective has to take into account the micro perspective of the different actors, i.e. their interests and resources. In higher education, the students, as the clients of the system (Luhmann 1997), represent the demand side of the system and are thus an important group of actors whose actions have individual causes and aggregate impacts on the system level.<sup>247</sup> With regard to the subsystem of teacher education, the individual students' behaviour, and in particular their educational choices, indirectly affect the school system via the quality of teachers. The reform of teacher education, the tertiarization and upgrading of the institutions to the tertiary level were explicitly implemented by means of a strategy of quality enhancement and professionalization of teaching personnel (EDK 1993b). Consequently, it matters who and which students opt for teacher education under the new institutional setting. Any evaluation of teacher education policy must therefore consider on a micro level the individual students' behaviour in terms of choice of study and how this affects the system as a whole.

### 18.1 Educational choice as a result of a process of self-selection

The strategy of quality enhancement via the upgrading of education and training will only be successful if there are enough high-quality students opting for teaching as a career. Accordingly, the attractiveness of the study programmes at a university of teacher education is a precondition for training a sufficient number of high-quality teachers. This attractiveness depends on how potential UTE students assess the different aspects of such a study programme, the institution of UTE as such, as well as the working conditions of teachers.<sup>248</sup> Given these assumptions, any change in the working conditions of teachers (e.g. salaries, workload etc.) but also changes in the institutional context of the professional education modify positively or negatively the overall appeal and incentive quality of a teaching career.

In accordance with the sociological and economic literature, I shall use the term *self-selection* for the process of opting for a specific study and a particular professional career. Demand for training as a teacher – and subsequently the supply of trained teachers – results

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<sup>247</sup> From a policy analysis perspective, any policy evaluation will assess the consequences and impact of a policy as the observable direct effects on the target groups (Knoepfel et al. 2006). In higher education, the students can also be considered as one of the target groups. In the concrete case of teacher education, the students as future teachers will be the mediators and transmitters of a given education policy.

<sup>248</sup> Cf. Luhmann and Mayntz (1973): "Das Individuum bewertet dabei die konkreten Merkmale der beruflichen Alternativen im Lichte seiner eigenen Bedürfnisse und Präferenzen. Die positive oder negative Bewertung der Merkmale eines Berufes oder Arbeitgebers stellen deren Anreizqualität dar" (Luhmann and Mayntz 1973: 17).

from a process of self-selection among potential students, that is, potential students choose within a process of individual selection between different occupational and educational options. Luhmann and Mayntz (1973) provide the following definition of self-selection in their analysis of the recruitment of the personnel for the public service:

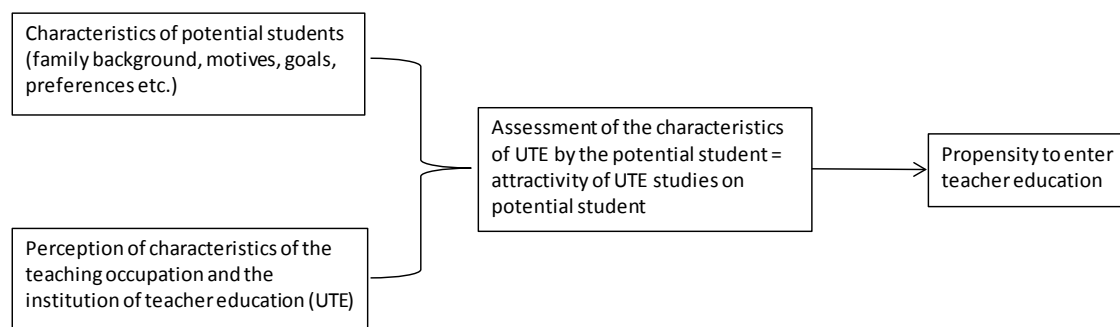
Das Angebot an Bewerbern für den Eintritt in den öffentlichen Dienst ist das Ergebnis von Prozessen der Selbstselektion, d.h. von individuellen Auswahlentscheidungen zwischen verschiedenen Berufsmöglichkeiten und verschiedenen Arbeitgebern. (Luhmann and Mayntz 1973: 15)

However, we must bear in mind that processes of self-selection are based not on objective characteristics and aspects of a given occupation or a given line of study but rather on an individual assessment of subjectively perceived aspects of the alternatives in question (Luhmann and Mayntz 1973: 17). Put it this way, we may consider self-selection into teacher education as part of a process of occupational choice where individuals with specific characteristics, interests and goals reacts on the basis of a certain number of educational and occupational alternatives. In the following analysis, rather than investigating in depth the psychological process of occupational choice, I shall focus on the correlation between individual characteristics, motives and interests and the choice for teacher education, as this will allow us to assess the attractiveness of the UTEs in the eyes of potential students and to identify factors relevant for self-selection into teaching. In this respect, it is assumed that willingness to enter teacher education respectively a UTE, or not, results from the perceived characteristics of the study programme and the teaching occupation compared with alternative options in view of subjective preferences and interests which might in turn be conditioned by such dimensions as gender or social background. The prestige institutional types and specific professions assumedly play a crucial role in this selection process:

Moreover, there is a direct practical component to prestige and the way in which some institutions are valued more than others, which in turn relates to resource competition and institutional survival. Students and their parents, for example, view some institutions as providing more advantage with respect to the labor market and future employment prospects. These institutions are thus placed in a more favourable position with respect to competing for students, particularly the best academically prepared students. (Meek et al. 1996: 222)

Following Luhmann and Mayntz (1973), I illustrate this relationship as reproduced in the following figure (see Figure 18.1).



**Figure 18.1: Process of self-selection into teacher education**

Source: Own representation following Luhmann and Mayntz (1973)

According to this logic, we may assume that the characteristics describing teacher education will attract individuals with specific interests and orientations while putting others off. In other words, it is precisely this differential effect of attraction that characterizes the process of self-selection (Luhmann and Mayntz 1973: 22). Self-selective processes affect the composition of the student clientele. The pathways of individuals into teaching exhibit several moments of choice that impact crucially on the final composition of the teaching workforce. Sorting into the institutions of teacher education plays a major role in determining the potential quality of the teaching workforce. The quality of the teachers available to work within a given educational system primarily depends on who opts for a career in teaching. As a consequence, the question of who decides to become a teacher is a highly relevant question in educational policy. In our specific case of the reform of teacher education and the creation of a new type of HEIs, we are interested in the specific attractiveness of the UTEs. We wish to identify which characteristics of the new type of institution are attractive for which individuals, and whether students opting for teacher education differ from those choosing other subjects and other HEIs. Furthermore, the identification of institutional characteristics of the new institutions for teacher education will enable us to assess how the potential student clientele perceives the structure of the higher education system and how they subjectively position the different types of HEIs. This will complement our analysis of the structural changes of the higher education system with a “bottom-up” approach, so to speak. The system-actor analysis of the institutional offer in higher education, focusing on the macro and meso level of the individual institution will be complemented by a micro-analysis taking into account the demand side of the higher education system. In the following, I shall rely on previous studies dealing with the process of self-selection into higher education and in particular into institutions of teacher education (cf. Denzler and Wolter 2008, Denzler and Wolter 2009, Denzler and Wolter 2010a; Denzler 2011).

## 18.2 Theoretical approaches to educational choice

Processes of self-selection are explained by economic and sociological micro-theories of individual choice. They are usually based on an economic model of rational choice theory (e.g. Schultz 1961; Mincer 1974; Becker 1976; Boudon 1987; Becker 1993; Esser 1993; Breen and Goldthorpe 1999). According to these theories, individuals evaluate a set of educational alternatives and select the option that maximizes utility. All these theories rely on maximizing behaviour, the basic assumption of general economic theory. Based on this reasoning, (Schultz 1961; Mincer 1974; Becker 1993) developed a theory of distribution of earnings, the human capital theory.<sup>249</sup> In the human capital approach, the assumption is that education and training raise the productivity of workers by imparting knowledge, skills, and a way of analysing problems and thereby increase workers' future income. Expenditure on training and education is therefore considered an investment in human capital<sup>250</sup> with the goal of increasing personal income (Becker 1993):

Earnings are made dependent on the amounts invested in human capital, and the latter are assumed to be determined by a rational comparison of benefits and costs. (Becker 1993: 147)

Individuals choose from among educational alternatives those which serve best their interests. The decision is based upon an evaluation of the different options with respect to costs, benefits and the probability of achieving these goals.<sup>251</sup> As a consequence, the distribution of earnings and investments depends on the distribution and shapes of individual supply and demand for investment in education. In contrast to egalitarian and elite approaches to income distribution, Becker emphasizes that there are differences in demand as well as in supply – that is, in capacities and in opportunities (Becker 1993: 178). However, the causal connection between productivity and earnings has been questioned by critics of this approach (cf., for instance, Rosen 1981).

Since the goal of the present analysis is not to analyse earnings distribution, I shall rather discuss the concept of maximizing behaviour, as this represents the key concept of economic theory which has subsequently been used in sociological approaches of rational choice and which also links to the conceptual framework of the actor-centred approach on which I draw

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<sup>249</sup> Despite the basis of maximizing behaviour, human capital theory further incorporates institutional factors such as inheritance of property income, distribution of abilities, subsidies to education, unequal opportunities (Becker 1993: 149).

<sup>250</sup> The concept of 'human capital' has often been misunderstood. Becker (1993) explains it by comparing human capital to other capitals: "Schooling, a computer training course, expenditures on medical care, [...] are capital too in the sense that they improve health, raise earnings, or add to a person's appreciation of literature over much of his or her lifetime. Consequently, it is fully in keeping with the capital concept as traditionally defined to say that expenditures on education, training, [...] are investments in capital (Becker 1993: 16).

<sup>251</sup> The concept of costs and benefits always incorporates monetary and nonmonetary variables. Human capital theory is by no means a mere theory of maximizing money: "Fortunately, nothing in the concept of human capital implies that monetary incentives need be more important than cultural and nonmonetary ones" (Becker 1993: 21).

(see chapter 4.5, p. 56). The concept of maximizing behaviour in the neoclassical understanding is not an assumption about particular motivations, and does not assume that individuals are motivated only by self-interest; it is only a *method* of analysis (Becker 1996: 38). The idea is that individuals maximize their utility the way as they perceive it regardless of their specific values and preferences:

The analysis assumes that individuals maximize welfare *as they conceive it*, whether they be selfish, altruistic, loyal, spiteful, or masochistic. Their behaviour is forward-looking, [...]. They try as best they can to anticipate the uncertain consequences of their actions. [...] Actions are constrained by income, time, imperfect memory and calculating capacities, and other limited resources, and also by the available opportunities in the economy. These opportunities are largely determined by the private and collective actions of other individuals and organizations. Different constraints are decisive for different situations, but the most fundamental constraint is limited time. [...] Utility maximization is of no relevance in a Utopia where everyone's needs are fully satisfied, but the constant flow of time makes such a Utopia impossible. (Becker 1996: 39)

The sociological tradition of methodological individualism draws on a broader type of theory, as subjects of investigation and problems are more varied and complex. Generally, rational choice theory, also named rational action theory, is used to explain individual educational choices. In the focus of these analyses are social inequalities in education. The starting point is the fact that educational inequalities have persisted over time and represent so to speak a structural phenomenon of modern society. Numerous studies have provided evidence for the existence of social inequality of educational chances or opportunities: Further and higher education is still a privilege of social classes with higher social status. The offspring of higher social classes have a significantly higher chance of successfully participating in higher education (Müller and Mayer 1976; Blossfeld and Shavit 1993; Müller and Haun 1994; Becker and Lauterbach 2004; Müller and Pollak 2004; Becker 2006; Müller et al. 2009).<sup>252</sup>

Yet it is not that easy to explain the complex relationship between education and social inequality. Theoretical approaches commonly state that social inequalities of educational opportunities are transmitted by the parents onto the next generation over the educational system. Following Boudon (1984), this process of transmission is usually explained by two mechanisms: primary and secondary effects of social background. With the concept of primary effects, the transmission of cognitive skills is described, while the concept of secondary affects educational choices within the context of the family. The differentiation between primary and secondary effects of social background has turned out to be a fruitful concept in order to explain for instance unequal participation in higher education, as both effects are dependent on

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<sup>252</sup> See also Luhmann pointing to the differences between self-selection and selection by others: "Gerade Selbstselektion macht im übrigen wahrscheinlich, dass sich Zusammenhänge mit Schichtung oder zumindest mit dem Erziehungserfolg des Elternhauses einstellen werden, während Prüfungen immer schon als Instrument der relativen Neutralisierung von Herkunft empfohlen worden sind" (Luhmann 2009: 231).

the resources of social origin but have a different mechanism. Due to better endowment and fostering, children from families with higher social status develop better performance in schools and exhibit higher academic achievement. Their probability of succeeding in school increases with the educational level of the parents, whereas low-status children or migrants have cognitive disadvantages in this respect (primary effects). This primary effect of social origin explains why educational attainment varies among social groups. Secondary effects occur through educational choices conditioned by the social background of the families, and these choices depend on the educational background and economic resources of the parents, as the cost-benefit structure of a specific educational alternative varies depending on social status and economic position (Boudon 1984; Breen and Goldthorpe 1999). For students from less privileged backgrounds, the cost of studying at university is higher, and their benefit is probably smaller than for the offspring of university graduates. Otherwise, loss in status would be greater for high-status families in the event that their offspring failed to pursue a higher education career, while their benefit would therefore be greater than for lower-status persons. These mechanisms explain why given educational opportunities are evaluated and desired differently according to social background (Boudon 1984: 108; Esser 1999: 251). Social differences in educational careers are thus understood as the product of individual decisions made on the basis of available resources and constraints.

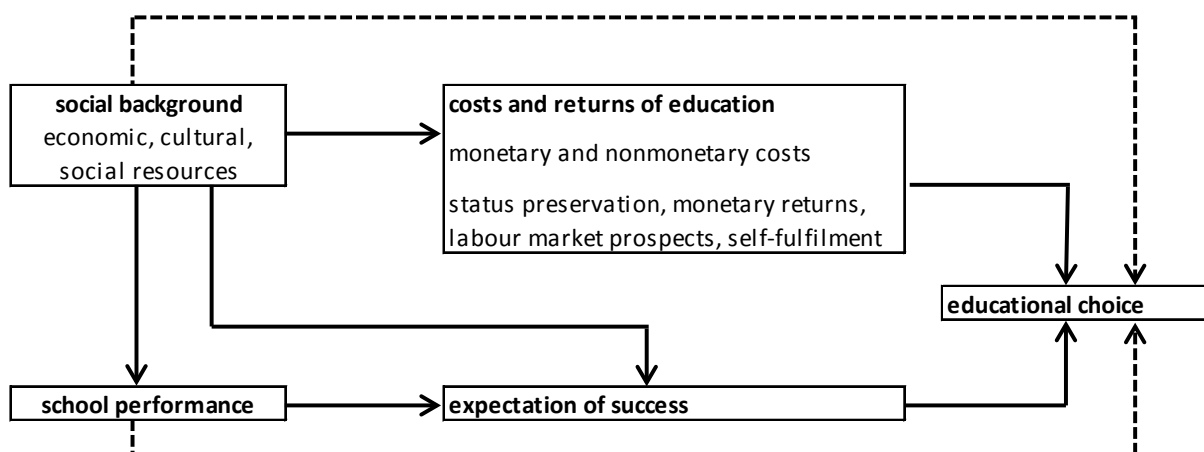
In sum, we may conclude that the educational choice concerning further education by high school graduates depends on factors such as cognitive ability, personal preferences and interests, the institutional higher education offer, the demand for academically trained personnel by the labour market, as well as on the capacities to finance higher education (Becker and Hecken 2007: 102). With regard to the choice of entering teacher education or the intention to enter a UTE, we also have to account for institutional factors such as the local higher education offer, duration of study programmes and performance requirements of different HEIs. In addition, factors such as social background, age, gender must also be considered, along with individual preferences, motives and interests. Consequently, we should be able to explain possible differences as to gender and social background by referring to different assessments of costs and returns as well as by differences in academic performance (Breen and Goldthorpe 1999; Becker and Hecken 2007). In terms of human capital theory, different assessments of costs and returns of an educational alternative translate for instance into heterogeneous time preferences.

Generally, anticipated costs of higher education are direct costs such as fees, expenditures for materials or transport costs to the study place. Further, study costs comprise the costs of living and opportunity costs (giving up gainful employment). Finally, immaterial cost can be

mentioned such as psychic and cognitive endeavour or the loss of a social network in combination with a change of residence (Spiess and Wrohlich 2010). Anticipated returns on higher education are all aspects related to the future occupation (labour market prospects, earnings, unemployment risk, and the like), but also non-monetary and immaterial benefits, motives and interests such as personal fulfilment, satisfaction of scientific curiosity or attainment of high social status and prestige. Finally, the subjectively perceived probability of success plays a central role in rational choice approaches to educational choice. Individuals who estimate their prospects for a successful higher education career as rather low have a high risk when investing in university studies, since future returns become more uncertain. Consequently, they tend to opt for a cognitively less demanding alternative (see, for instance, Heine and Quast 2011).

The figure below illustrates the mechanism of educational choices based on the conceptual framework of social action theories.

**Figure 18.2: Conceptual framework of educational choice**



*Source:* Own representation, according to Maaz (2010)

### 18.3 Empirical evidence of heterogeneous self-selection into higher education

Empirical evidence for the socially heterogeneous self-selection into higher education is broadly supported. Various authors show that study intentions are socially dependent – concerning either the choice whether to study or not (e.g. Butlin 1999; Becker 2000a; Christofides et al. 2001), the choice of type of higher education institute (e.g. Trautwein et al. 2006) or academic discipline (e.g. Jiménez and Salas-Velasco 2000; Georg 2005). Beginning students from families with graduate parents tend to prefer university studies, opt more frequently for

medicine or law and less so for humanities or teaching, and often choose longer studies (Watermann and Maaz 2004; Maaz 2006).

For Germany, Baumert et al. (2003) show considerable social disparities, especially at high schools which can be explained by primary and secondary effects. This results in the fact that 85% of privileged students acquire the university entrance diploma (Abitur), whereas among the underprivileged students, only one-third achieves this goal. This discrepancy is accentuated in the transition to higher education. High-school graduate surveys confirm these socially heterogeneous patterns of study intention: thus, 80% of all high-school graduates from university-educated families decide to start university studies, yet among graduates from non-university graduated fathers this ratio is only about 60% (Heine et al. 2006). The probability of taking up studies is twice as high for students from graduates' households than for those without university-graduated parents. When we control for school achievement, the probability of taking up university studies increases with social status (Maaz 2006: 228ff.). The study intention is positively influenced by male gender, younger age, migration status and motives such as "interest in scientific work" (Heine et al. 2006: 29). Becker (2000a) explains based on rational choice theory the decrease in study intention in a German federal state. However, the reason for the change in the study demand lies not in a modified cost-benefit ratio but solely in a decrease of the anticipated benefits. Due to difficult labour market prospects, the status effects become stronger, and the effect of the educational returns decline in importance. Thus, high school graduates from lower status families regarded the benefits of higher education as worth significantly less (Becker 2000a: 272). An analysis of the choice to enter engineering studies confirms these findings: with changes in the economic context, gender and status-specific cost-benefit ratios significantly alter results in the observable fluctuating demand for higher education (Becker 2000b: 32).

With regard to type of higher education institution, data for the last 20 years reveal relatively stable differences in the family background between students of universities and polytechnics (Watermann and Maaz 2004; Kramer et al. 2011). Different types of higher education institutions have specific incentives, as they differ with respect to study time, cognitive standards, the relationship between theoretical and practical or professional teaching and study content, and the opportunity to earn money (Watermann and Maaz 2004). The choice of the higher education type depends to a large extent on the social background as well as on the school profile and type of institution at the upper secondary level. Lower status children are more than twice as likely to take up studies at a non-university institution, i.e. at a UAS or a UTE (Maaz 2006: 226; Lörz et al. 2011). Based on a German longitudinal dataset (TOSCA), Watermann and Maaz (2004) find higher disposition rates to university studies for men with

academic family backgrounds, living in an urban environment, who have better school marks, and who are more intrinsically motivated (Watermann and Maaz 2004: 428f.). Moreover, Kramer et al. (2011) found differences in cognitive ability, educational achievement between aspirants of the different types of higher education.

PISA also revealed for Switzerland's education system a relatively high social selectivity (OECD 2001, 2004; Coradi Vellacott and Wolter 2005). Students from lower socioeconomic backgrounds are underrepresented in the upper school system. Furthermore, parents' socioeconomic status and educational level have a significant influence on their children's educational achievement. The effect works directly and indirectly via the social and cultural environment.

As for the transition and access to higher education in Switzerland, research is rather scarce. Data are available from a bi-annual graduate survey and from specialized surveys on the social and economic conditions of student life. Several reports on the social and economic conditions of students at higher education institutions in Switzerland have been published recently, underscoring the presence of socially heterogeneous access to higher education: more than 36% of all students have university-educated fathers, whereas in the respective age group in the overall population (54 to 65 years), only about 19% have acquired a higher education diploma (ISCED 5A). This percentage increases up to 42% for (academic) university students, whereas it averages only 23% for students at universities of applied sciences (BFS 2007, 2008).

Analysing the effect of monetary and non-monetary benefits on study choice, Smits et al. (2002) find based on Dutch data that students of different disciplines vary in their subjective evaluations of the anticipated benefits. Whereas for students in medicine, economics or law, monetary benefits dominate, students of other disciplines highly esteem such non-monetary factors as knowledge acquisition, study effort or leisure time. If the expected probability of success of university studies is low or if psychic costs in terms of cognitive endeavour are viewed as too high, the tendency to choose alternatives to university increases.

## **18.4 Teacher education as educational choice**

Studies on the motivation to choose teaching as an occupational career have a long tradition in the pedagogical literature (see, for example, Oesterreich 1987; Mayr 1994; Terhart et al. 1994; Brühwiler 2001; Herzog et al. 2007, for an overview, Lipowsky 2003 and Nieskens 2009). However, our interest is rather focused on the self-selection into teacher education, i.e. choosing to study at a university of teacher education or not. We apply the general issue of educational choice and transition into higher education to the question of the choice of a particular

field of study: the education and training for teacher at compulsory schools. In the following section, I shall therefore only refer to studies that treat the educational choice as a process of self-selection into teacher education,<sup>253</sup> that is, studies which rely on representative data on potential students, for only such a survey design allows the identification of factors of self-selection. Luhmann and Mayntz (1973) similarly argue in their analysis of self-selection into public service:

Will man die Faktoren untersuchen, die die Bereitschaft zum Eintritt in den öffentlichen Dienst positiv oder negativ beeinflussen, dann genügt es nicht, eine Erhebung unter tatsächlichen Neubewerbern für den Eintritt in den öffentlichen Dienst durchzuführen. Vielmehr musste sich die Untersuchung auf Gruppen potentieller Bewerber beziehen und hier die prinzipiell Eintrittswilligen mit denen vergleichen, die nicht gern in den öffentlichen Dienst eintreten würden. (Luhmann and Mayntz 1973: 23)

Considering this rationale, the relevant literature for our purposes should be found primarily in the field of higher education studies; high school graduates' surveys for instance assessing study intentions and career choices could be drawn on since they would be based on all potential students (individuals with a higher education entrance qualification). The majority of these type of surveys find a gender specific self-selection into teacher education: females have a significantly higher probability of choosing teacher education as their study programme (Stegmann 1980; Heine 2002; Trautwein et al. 2006; Lörz et al. 2011; Lörz and Schindler 2011). Gender-specific self-selection is also found by psychological research studying the person environment fit between potential students' traits and occupation characteristics based on a representative longitudinal sample of high school students (Nieskens 2009). Furthermore, future teacher students are found to come to a greater extent from lower-status families with a non-academic background (Stegmann 1980; Deauvieu 2005; Kühne 2006; Trautwein et al. 2006). Teacher education still seems to play a role in the upward mobility of social status (see e.g. Enzelberger 2001). Moreover, future students of teaching are characterized by more intrinsic and social motives (Heine 2002; Nieskens 2009); they attach greater importance to the possibility of reconciling career and family life (Heublein and Sommer 2000; Abele 2011); and they are identified as being less scientifically interested (Heine 2002; Spinath et al. 2005; Trautwein et al. 2006) and less career-oriented (Heine 2002).

Finally, regarding self-selection into teaching, it matters whether cognitive abilities and educational achievement differ between those aspiring to teacher education and other students. In the Anglo-Saxon literature, the evidence points rather to a negative self-selection into

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<sup>253</sup> The problem with studies on career motives of teachers is that most of these analyses comprise exclusively teachers and no other potential students. Consequently, such studies do not rely on representative samples and hence, are unable to contribute to the question of self-selection into teaching – a fact that is often neglected in the classical pedagogical literature on teachers (see for illustration the recent literature review by Rothland (2011) who – using as the only quality criteria the sheer number of cases within a sample – does not assess the representativeness of the samples or the problem of selection bias when discussing the different study findings).



teaching profession (see, for example, Manski 1987; Murnane et al. 1991; Hanushek and Pace 1995; Webbink 1999; Stinebrickner 2001; Podgursky 2004). However, this might also be explained by the lower status of the teaching profession in the Anglo-Saxon world compared with the situation in Switzerland or Germany. As far as the German-speaking countries are concerned, the findings are less clear-cut. Various studies describe the recruitment of teachers as a negative selection with regard to cognitive abilities – at least as regards compulsory school teachers (see, for example, Stegmann 1980; Giesen and Gold 1993; Spinath et al. 2005). Spinath et al. (2005) identify significant differences between students in teacher education and students in mathematics, natural sciences as well as in engineering, but they do not find differences between the different study courses of teacher education. Others question the thesis of negative self-selection into teacher education. For example, Bergmann (1994) did not find any difference in cognitive abilities between high-school graduates opting for teaching and others. Bergmann and Eder (1994) state that at least between those high school students with an early decision to enter teacher education and other students, they do not find any differences. Recent analyses on the other hand tend rather to find differences as to cognitive abilities between future teacher students and others (cf. Trautwein et al. 2006).

## 18.5 Assumptions

One of the key hypotheses that can be deduced from the above theoretical approaches is the assumption of class-specific self-selection into teacher education. In terms of rational choice theory, the socially heterogeneous self-selection results from class-specific cost-benefit assessments. As for the cost side, education for general compulsory teaching at a university of teacher education (UTE) has, compared with academic university studies, the advantage of studies of shorter duration; the acquisition of occupational qualifications enabling direct labour market entry; and relatively good and secure employment conditions. Given this institutional setting, we would expect lower-status groups to exhibit a stronger preference for study courses at a UTE since they are generally more sensitive to costs (Becker 1993), have a higher time preference, are more risk averse and more averse to take on lending (Freeman 1986; Anderhub et al. 2001; Hartog and Díaz-Serrano 2004).

A further aspect of costs is the geographical distance from the student's home to the place of study as revealed by the empirical economic literature: several empirical studies have shown that the distance to the nearest university affects study choice. Larger distances to a university lead to higher transaction costs, direct financial costs for external living or travelling and indirect costs in form of foregone economies of scale when not sharing the household with the

family. Furthermore, there are emotional costs, such as the loss of social networks of family and peers. All these factors generally lower the inclination to study (cf. Frenette 2006, 2009; Spiess and Wrohlich 2010). Sometimes universities of teacher education (UTEs) are located on a more decentralized basis in the Swiss higher education landscape than for instance academic universities. We may therefore assume that the preference for entering teacher education is higher for people who live in the catchment area of a UTE but not a university.

On the return side, status preservation with a degree from teacher education will be more difficult since teacher education in general and the newly created HEIs of teacher education do not have the same standing and prestige as the traditional academic universities (Hutmacher 2003; Lipowsky 2003; Henecka and Lipowsky 2004). Consequently, sons and daughters from academically trained parents will have stronger incentives to take up studies at a university than aiming for studying at a UTE if they want to keep the family's social status. We can thus assume that students with an academic background will tend less often to choose teacher education whereas students from non-academic families will have a higher probability of entering teacher education at UTEs.

Further, individual interests and motives such as self-fulfilment, creativity and a social, caring orientation will presumably be fairly well satisfied by opting for a teacher career. Referring to matching theories (Holland 1997) or models of social identity (Akerlof and Kranton 2000) and the characterization of the teaching profession as a social and communicative activity (Nieskens 2009), it can be inferred that socially oriented, communicative and caring persons are predominantly interested in a teaching career. Taking into account the different missions of the university and the non-university sector and in particular the practically oriented training at UTEs, we can expect those individuals opting for a UTE to be more practically and less scientifically oriented. Such a finding would also be consistent with the empirical literature (see for instance Heine 2002; Spinath et al. 2005; Trautwein et al. 2006). Finally, another aspect that has to be subsumed under the potential benefits of teaching is the possibility of reconciling career and family life. In this respect, teaching, with the possibility of part-time work, flexibility and free time, is ideal. As a result, we expect women to have a higher tendency to opt for teaching as a career. In conclusion from these reflections, the following hypotheses will be empirically tested within the following micro-sociological analysis:

- 1) Potential students aspiring to enter a university of teacher education (UTE) come from lower socio-economic and cultural background than those entering regular university studies. The socially heterogeneous self-selection into teacher education can also be shown by proxies for study cost such as time preference and distance to university: Those preferring a UTE will exhibit a stronger preference for the present

and come from more remote places. – And vice versa, students from academic parental background tend to opt out from teacher education for status reasons.

- 2) Students aspiring to enter studies at a university of teacher education (UTE) are characterized by a stronger social and family orientation, by a stronger practical bent and by lesser scientific interest than university students.

In sum, the hypotheses to be tested assume that there are structural factors such as the type of higher education institution, the duration of studies, and the organization of the study programme that affect students' decisions for or against a UTE. Considering aspects such as the proximity of UTEs, it can further be questioned whether the choice of a UTE is not a decision against studying at a university. In general, the hypothesized structural differences between the student clientele of UTEs and the traditional academic universities would have to be interpreted as being evidence for the differentiation of the higher education system. Consequently, UTEs were then to be positioned at a different level than the universities.

## 18.6 Empirical strategy

As I have explained above, if one wishes to study factors that affect the choice to enter a UTE, it will not be sufficient to survey students entering teacher education. To find out that those wanting to become a teacher are predominantly intrinsically motivated, socially oriented individuals who like to work with children – thus the overall finding in the literature on teacher biographies (see for example Mayr 1994) – does not really help us to describe the mechanism of self-selection. Paediatricians, nurses or day nannies might similarly be motivated. Instead, we want to know what distinguishes teacher students from other higher education students. Only a *relative* perspective comparing those aspiring to enter a UTE with other students who also have the qualifications to enter teacher education but who did not choose or did not express the wish to enter a UTE will enable us to investigate self-selection mechanisms. Therefore, we would need to base our analysis on a data sample of *potential* students of teacher education containing future students of all different types of studies and disciplines. Only such a strategy will allow us to describe future teacher students compared with students of other subjects and other institutions and to identify factors affecting self-selection into the UTE. From the description of the self-selection process, we will then also be able to assess where the UTEs are positioned in the potential students' views.

### 18.6.1 Sampling

For reasons of practicability, I have restricted the analyses to a representative sample of high school graduates, i.e. students at upper secondary schools preparing for the baccalaureate (écoles de maturité/Maturitätsschulen) a few months before taking their school leaving examination. Graduates holding a baccalaureate represent the vast majority of the students entering a UTE. Furthermore, this sample is characterized by relatively high homogeneity and is therefore well suited to carrying out the proposed comparisons. Also, only graduates of the baccalaureate schools have the option of choosing any type of higher education institution.

Moreover, we have to consider at what moment occupational motives are surveyed, for surveys that assess occupational motives from students who are already pursuing a specific study programme are probably less valid than motives expressed before the decision for a specific educational alternative. Students within teacher education as well as occupied teachers have already made their occupational choice and will therefore tend to express motives that will justify their choice retrospectively (Nieskens 2009: 142). In order to avoid or reduce the problem of retrospective rationalizations as well as the problem of socially desirable answers, the study took place at a point in time when the majority of students completing high school were faced with a concrete decision concerning the line of study. Thus, the evidence gathered is based not on a choice of studies already made, but on a concrete, directly desired but theoretically still open choice. The students, faced with a broad array of educational alternatives, still have their concrete study choice decisions ahead.

Great endeavour was taken to ensure a representative random sample. Accordingly, 1566 male and female high-school students from nine German-speaking cantons in Switzerland were surveyed shortly before taking the school-leaving examination. A multilevel cluster sample was designed for the survey. Cantons were systematically selected as well as on the second level, schools. In very small cantons, all high schools were included in the survey. On the third level, inside schools, individual graduating classes were chosen at random.

Data was collected in March 2006 by circulating printed questionnaires in the selected graduating classes. The survey was conducted using standardized criteria during regular school hours, under the supervision of the teachers responsible for the classes in question. This approach was intended to guarantee the highest possible data quality and relatively homogeneous class samples with a low drop-out rate.<sup>254</sup> Finally, the adjusted random sample contains 1454 observations.

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<sup>254</sup> Owing to missing data from schools, it was not possible to perform a non-response analysis. However, a distortion can be ruled out on account of the very low drop-out rate. In addition, classes with a response ratio of less than 0.66 were also excluded.

### 18.6.2 Variables and instruments

All students were asked what type of career they wished to pursue and what type of training they wanted to undergo. The data contain further information concerning the person (sex, age, family circumstances, and leisure activities), socioeconomic background (education, socio-professional status and type of parental housing) and current school situation (high school track chosen, marks for German, French and mathematics). In order to test the influence of the geographical proximity of available study opportunities on the choice of studies, a categorical variable was introduced to represent the supply of institutions of higher education<sup>255</sup> within the canton of residence as well as a proxy variable indicating the distance to the nearest university.<sup>256</sup>

In addition, predetermined items were used to collect information on various motivations, attitudes and preferences in relation to the choice of studies and career. Career choice motives were collected by means of items taken from other graduate surveys, from a survey in 2002 on high school graduates in the canton of Berne serving as a pre-test (cf. Fiechter et al. 2004; Denzler et al. 2005) or were developed specifically for the present study. The above items on motivations and interests were examined by means of explorative factor analysis, using the principal component factor method with orthogonal rotation. Subsequently, scales for the following constructs were created subsuming the existing items: (1) social orientation; (2) scientific interest; (3) practical bent, (4) career ambition and (5) family orientation. These scales basically correspond to the most important dimensions which emerged from the explorative factor analysis of the motivational structure yet offer a more reliable and thematically more consistent interpretation of the regressions.<sup>257</sup>

### 18.6.3 Multivariate regression analysis

Contrary to bivariate descriptions where correlations risk resulting from third variables, regression analysis offers a method for simultaneously estimating the effect of different variables and identifying a specific factor while controlling for other relevant factors. Thus, it is possible to assess whether for instance the effect of the educational achievement is not mediated through social background or school profile. Moreover, we can study the correlation

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<sup>255</sup> A distinction was made between (a) university colleges with more than four faculties (full university as in the *universitas litterarum*); (b) university colleges with a limited number of courses on offer (less than four faculties, for example, only economics and law); and (c) teacher education colleges.

<sup>256</sup> As a proxy for the distance between the place of residence and the university, the minimum travel time using public transport between the high school and the nearest university (full university) was calculated by means of the official online timetable of the Swiss Federal Railway, accessible under: <http://fahrplan.sbb.ch/bin/query.exe/dn>.

<sup>257</sup> The construction of the scales is explained in greater depth in Denzler and Wolter (2008: 138ff.).

and mechanism of certain factors by successively specifying our regression model. The hypotheses set out explaining self-selection into teaching as a rational choice based on class-specific cost-benefit analyses, motivational disposition and institutional factors are thus tested subsequently.

The following model was used as the foundation for empirical analysis:

$$y_i^T = \beta_0 + \beta_1 X_i + \beta_2 S_i + \beta_3 F_i + \beta_4 M_i + \beta_5 I_i + \varepsilon_i \quad (1)$$

The dependent binary variable for career wishes ( $y^T$ ) with the value of 0 for non-teachers and 1 for teachers is regressed onto a series of covariates: whereby  $X$  represents a vector of personal characteristics;  $S$  is a vector of school related variables,  $F$  is a vector of variables relating to family origin;  $M$  is a vector of motivation-related factors;  $I$  stands for institutional factors, such as available institutions of higher education; and  $\varepsilon$  is the stochastic error term. This regression function is estimated by means of a probit model. Thus, for the parameter value 1 of the dependent variable ( $y=1$ ), the following probability model holds (Wooldridge, 2003, 557):

$$\Pr(y = 1 | x_i') = \Phi(\beta_0 + \beta_1 x_i') \quad (2)$$

Here,  $\Phi$  is the normally distributed cumulative distribution function (CDF);  $y=1$  represents a person interested in a teaching career. The determinants formulated in the different hypotheses are comprised in the vector  $x'$ . However, because of the non-linearity of the conditional expectation the parameters cannot be estimated with OLS; the estimations are therefore based on a maximum likelihood model (Wooldridge 2003: 557f.). Consequently, the coefficients can only be interpreted as to their significance and their direction. In order to make qualitative statements, marginal effects have to be calculated on the basis of the predicted probabilities of relevant covariates.<sup>258</sup>

The differences between the various levels targeted were analysed in a second phase using multinomial logistic regression – a technique which makes it possible to simultaneously evaluate a single nominally scaled dependent variable ( $j$ ) with several non-ordered response categories. This probabilistic model is developed from the binary logit model; its basis is therefore a logistic distribution function ( $\Pi$ ):

$$\Pr(y = j | x_i') = \Pi(\beta_0 + \beta_1 x_i') \quad (3)$$

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<sup>258</sup> The probit model is a non-linear model. The parameter ( $\beta x$ ) does therefore not measure the marginal effect directly. Rather, marginal probability effects (MPE) are derived from the cumulative density function (Wooldridge 2003: 557; Wooldridge 2003; Winkelmann and Boes 2006: 104).

The probabilities for the different parameter values are estimated with maximum likelihood:

$$\Pr(y = j | x_i') = \frac{\exp(x_i' \beta_j)}{1 + \sum_{h=1}^J \exp(x \beta_h)} \quad (4)$$

$j=1, \dots, J$

For identification means, the parameters of the first alternative ( $j=1$ ) are usually set null, which simplifies the term in the numerator in equation 4. This first category represents now the basis category.

$$\Pr(y = 0 | x_i') = \frac{1}{1 + \sum_{h=1}^J \exp(x \beta_h)} \quad (5)$$

## 18.7 Empirical analysis

Complex random samples such as the cluster samples used here refute the assumption of the statistical independence of the survey units. It must be assumed that elements from the same cluster are more similar than elements from different clusters. Consequently, random sampling errors with parameter evaluation cannot be estimated using the usual standard procedure (see also Denzler and Wolter 2009: 429f.). In cluster random samples, standard estimation errors tend to rise in tandem with increases in the homogeneity of the elements within a cluster in relation to the homogeneity of the elements of different clusters. To avoid this kind of cluster effect, a corrective procedure was used with all regression analyses which factors in the structure of the available random sample and corrects the current estimates accordingly. In addition, weights were used to deal with differences in cluster size.

### 18.7.1 Descriptive statistics

The aspired educational careers of the 1454 high school students comprised in the sample can be summarized as follows (see Table 18.1):

**Table 18.1: Students' aspired educational careers**

	<i>Freq.</i>	<i>Per Cent</i>	<i>Women in %</i>	<i>Academic FBG in %</i>
University	717	49.3	56.5	40.2
ETH	240	16.5	27.1	39.6
UAS	251	17.3	70.9	27.5
UTE	145	10.0	89.7	13.8
VET	87	6.0	63.2	27.6
missing	14	1.0	78.6	14.3
total	1454	100.0	58.1	34.3

Academic family background (FBG): Father or/and mother with university degree

Every second student (i.e. 717 students) opts for studying at a university. In all, 240 students (17%) want to start studying at the Swiss Federal Institute of Technology; as many opt for a university of applied sciences (UAS); and 145 (10%) opt for teacher education at a university of teacher education (UTE). About six per cent of the high school students declared that they would not enter the higher education system and would do an apprenticeship instead. Fourteen people did not express their study intentions.

Since teachers for the upper secondary schools (baccalaureate schools) need to earn a masters' degree at a university, those starting directly after graduating from high school at a UTE intend teacher training for the compulsory schools (i.e. pre-primary, primary or lower secondary schools). Those aspiring for teaching at high school are subsumed under the category "university". However, by means of the expressed career goal, it is still possible to identify the different categories of teachers (see Table 18.2):

**Table 18.2: Aspired category of teacher education**

	<i>Freq.</i>	<i>Percent</i>
Primary school	97	47.3%
Lower secondary school	48	23.4%
Upper secondary school	60	29.3%
Total	205	

Among the students opting for teacher education at a UTE or for studying at a UAS, we can find the highest proportion of female students (90% and 70%, respectively). Another interesting aspect that distinguishes the different types of further education is the academic family background. Whereas among those students opting for university studies (university or ETH) some 40 per cent come from a family where at least one parent has graduated from university, this only holds true for about 14% of the prospective UTE students.



As for high school background, the descriptive statistics already reveal that the vast majority of the prospective UTE students come from either a language track or a fine arts track (music and drawing). In particular the fine arts track (every second UTE student comes from a fine arts profile) represents the typical high school profile of those intending to study at a UTE. This can also be explained by the fact that these tracks (with a study focus in music and the fine arts or in pedagogy and psychology) originated as erstwhile normal schools at the upper secondary level. Even today, several high schools which used to be normal schools only offer these two high-school tracks.

The marks received vary astonishingly little<sup>259</sup> between the profiles of the individual high-school graduates, although it is well known that choice of track is also determined by ability and performance. We must therefore assume that marks are profile-specific, that is, information on marks is only related to the performance differences within a given track and cannot be compared between the various subject profiles at high school level. Nor is there any performance difference, when measured by the marks average between students who prefer teaching and students who pursue other study goals. However, this does not refute the hypothesis of a negative self-selection into teaching in terms of cognitive ability, as the information on marks – as set out – is hardly comparable. The marks used for the regression analysis have therefore been z-standardized at the level of the class. Furthermore, dummy variables have been created to identify high performers in mathematics and in German. The variable thus measures whether someone is in the 90th percentile of the distribution in his or her class.

### **18.7.2 Self-selection into teacher training: Determinants of educational choice**

In the following, the aspiration to start teacher training at a university of teacher education is estimated by means of the models presented above. In a first step, the dependent variable is the study choice of teacher education at a UTE. This choice will be further investigated subsequently.

#### ***Probability of choosing to study at a university of teacher education***

The results of the probit regression (compulsory school teaching staff) are shown in Table 1. The empirical model is specified step by step in order to observe how the covariates interact. In a first step, variables for personal characteristics and variables for the educational context (school track and marks) are specified to estimate the probability of choosing teacher educa-

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<sup>259</sup> The arithmetic mean of the marks in mathematics varies between 4.38 (modern languages track) and 4.54 (mathematics and natural sciences track); the mean comes to a constant 4.5 for all tracks.

tion. Not surprisingly, there is a strong and significant gender effect which remains significant throughout all specifications. High school graduates opting for teacher education are more likely females, Swiss nationals and coming from the fine arts profile (i.e. they have chosen music or drawing as a specialization at high school). Furthermore, they have lower marks in German.<sup>260</sup>

Controlling for family background in the next specification confirms the hypothesis of a class-specific preference for teacher training. The variables relating to family background<sup>261</sup> indicate that students from lower-status families or with parents who have not graduated from university as well as those living at a greater distance from a university are more likely to choose a career in teaching (see Model 2 and 3 in Table 18.3). Finally, in the last two specifications, motivational orientations and preferences are controlled for, revealing that interest in a career in teaching is correlated with higher time preference (i.e. a higher preference in the present), rather post-materialist values at the expense of materialist values (income, career etc.). Investigating a bit more in detail, we can describe these values as a preference for social values and practical aspects for a future occupation. High-school students on the verge of taking their school-leaving exams aspiring for teacher education can thus be characterized as being females of Swiss nationality of lower social status, being in a fine arts track in high school and performing less well in German. They exhibit a higher time preference, are more socially and practically oriented and less scientifically oriented than their classmates with other educational career goals. The model thus specified explains 37% of the variance in study choice (see pseudo R squared). The effect size of factors such as gender, high school profile or time preference is considerable. By way of example: when controlling for personal characteristics, family background, school context and motivational orientations, we find that women are about four times as likely as men to opt for a teaching career at the primary and lower secondary school level,<sup>262</sup> or the probability of a teaching career is reduced by half if students' parents have graduated from university.<sup>263</sup>

Lower socio-economic status usually goes hand in hand with a stronger time preference, as expressed for example in the choice of a shorter training course. The significantly positive

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<sup>260</sup> School performance is measured by a variable indicating actual marks in German and in mathematics as well as by a dummy variable representing the 9th decile of the distribution.

<sup>261</sup> Two different variables are used to control for family background: first, socio-economic status is calculated on the basis of parents' education and employment status. From this index, three dummy variables are created, each representing a third of the distribution (low, medium and high SES). Second, a dummy variable is constructed indicating whether at least one parent has graduated from university (university educated parents).

<sup>262</sup> In Table 18.3, Model 5, the marginal effect of the variable *gender* is given by .03 (i.e. 3 percentage points) signifying that being a female contributes 3 percentage points to the probability of choosing teacher training as a career (which is 3.9%). Thus the probability of men is 0.9% (3.9% - 3 percentage points=0.9%). Put differently, women's probability of choosing teacher training is with roughly 4% about four times as high as men's probability with almost 1%.

<sup>263</sup> 3.9% - 2 percentage points = 1.9% prob.

coefficient of the variable short studies thus indirectly bears out the hypothesis of the stronger time preference of high-school students who are interested in teacher training. The variable indicates the preference for short duration of studies as well as fewer demands on time during the studies. However, this effect does not appear to be only due to limited resources for higher education studies, but also to a general preference for fewer time constraints during teacher education.

With regard to regional differences, high school graduates from rural cantons without a university are more likely to choose a teaching career. According to the hypothesis put forward, this is a stable pattern, not a random observation: choice of studies is influenced by the availability of institutions of higher education and the distance to the nearest university.<sup>264</sup> I can therefore conclude that the greater the choice of institutions of higher education, the lower the probability that high-school graduates will be interested in teaching. Thus, differences in the availability of institutions of higher education and geographical distance to a university explain by and large the regional differences observed.

Interestingly, the effect of a music and fine arts or education sciences track in high school<sup>265</sup> is due to a certain extent to the variables of motivation-related disposition: the effect declines clearly after checking for motivational disposition but remains significant. This implies that the choice of these subjects is due on the one hand to socioeconomic factors and on the other hand to the inclinations and interests of the students.<sup>266</sup> Other studies have also examined the importance of the choice of a high-school track on the choice of future studies. For example, Schnabel and Gruehn (2000) show that the gender-specific choice of studies is also traced out through the choice of track in upper secondary school. Likewise, socialization- and peer effects (see, for example, Giorgi et al. 2007) are also relevant factors which influence the choice of studies, and it can therefore be assumed that high school students from the different high schools with different tracks experience this “academic” socialization differently (see Table 18.3).

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<sup>264</sup> For a detailed analysis of factor distance to university in the context of career choices, see Denzler and Wolter (2010a) and (2010b).

<sup>265</sup> In comparison to students with a language track, high school graduates with the music and education sciences track corresponding to the erstwhile normal schools are twice as likely to opt for a teaching career.

<sup>266</sup> A probit regression of these tracks (music/fine arts; education sciences) based on a series of regressors assumed to be relevant for entry to high school portrays students with these tracks as people from families with lower social status who are primarily defined by creative and musical activities. These are persons with a clear social career orientation.

**Table 18.3: Probability to choose studying at a UTE**

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender (1=female) (d)	.09 (.02)**	.07 (.02)**	.10 (.02)**	.06 (.02)**	.03 (.01)*
Swiss nationality (d)	.09 (.02)**	.07 (.02)**	.10 (.03)**	.05 (.02)**	.03 (.01)*
Language profile (d)	Ref.	Ref.	Ref.	Ref.	Ref.
Science profile (d)	-.01 (.05)	-.03 (.03)	-.04 (.04)	-.02 (.03)	.01 (.03)
Economics & law profile (d)	.02 (.05)	.01 (.04)	.02 (.06)	.04 (.05)	.02 (.03)
Fine arts profile (d)	.17 (.04)**	.15 (.04)**	.18 (.04)**	.09 (.03)**	.07 (.02)**
German grades	-.03 (.01)*	-.02 (.01)+	-.03 (.01)*		
Math grades	.00 (.01)	.00 (.01)	.00 (.01)		
German 90th perc. (d)				-.06 (.01)**	-.03 (.01)**
Math 90th perc. (d)				.01 (.03)	.03 (.03)
Distance to university		.05 (.02)**	.07 (.02)**	.05 (.02)**	.03 (.01)*
Low SES (d)		.05 (.03)+			
Medium SES (d)		Ref.			
High SES (d)		-.03 (.03)			
Univ. educated parents (d)			-.06 (.03)*	-.04 (.01)*	-.02 (.01)*
Time preference				.06 (.01)**	.03 (.01)**
Post-materialist values				.04 (.01)**	
Materialist values				-.05 (.01)**	
Practical orientation					.02 (.01)*
Scientific orientation					-.02 (.01)**
Social orientation					.04 (.01)**
Pseudo R-sq	.16	.19	.19	.34	.37
Model chi-sq	81.91	1.79	88.52	374.36	288.64
N	1353	1353	1353	1353	1353

Probit regression, reporting marginal effects (Prob. y = .039)

Standard errors (in parenthesis) are clustered on school/class

Legend: + p < .10, \* p < .05, \*\* p < .01

In addition, those who opt for a teaching career are above all people who are not interested in scientific training but who are socially inclined, action-oriented, interested in direct occupational qualifications and used to working with young people, for example, as Scouts. Finally, the desire to reconcile family life and career is a relevant factor in the choice of a teaching career, as supported by the findings of Fischer (2002) or Denzler and Wolter (2009).

### 18.7.3 Training-specific or occupation-specific self-selection into teaching – Differences between different categories of teacher

If self-selection into teaching is primarily due to occupation-specific characteristics, there should not be any differences between teachers at different teaching levels trained in different types of institutions. An effort was therefore made to determine whether and to what extent teachers from the different teaching levels (primary school, lower and upper secondary school) differed. The study hypotheses were tested by means of multinomial logistic regression, controlling not only for gender, background and major profile but also for motivation factors for the choice of studies and career (see Table 18.4).

**Table 18.4: Probability to choose studying primary, lower secondary teacher or upper secondary teacher compared to other (non-teaching) career choices**

	Model 1			Model 2			Model 3		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Gender (1=female)	2.14 (.63)**	1.73 (.67)*	.21 (.43)	1.97 (.61)**	1.59 (.68)*	.22 (.50)	1.36 (.65)*	1.11 (.73)	.05 (.57)
Language profile (d)	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Science profile	-1.32 (.56)*	.68 (.92)	-.69 (.58)	-1.34 (.55)*	.66 (.92)	-.69 (.58)	-.85 (.63)	1.01 (.85)	-.31 (.59)
Economics/law profile	.06 (.66)	.24 (.62)	-.29 (.37)	.09 (.67)	.27 (.65)	-.29 (.37)	.54 (.68)	.56 (.62)	-.11 (.40)
Fine arts profile	1.35 (.34)**	.95 (.44)*	-.23 (.40)	1.28 (.34)**	.88 (.43)*	-.23 (.39)	.92 (.38)*	.62 (.40)	-.05 (.38)
German 90th perc.	-1.55 (.55)**	-1.71 (.64)**	-.00 (.51)	-1.51 (.55)**	-1.68 (.63)**	-.00 (.52)	-1.37 (.59)*	-1.52 (.62)*	-.40 (.54)
Math 90th perc.	-.07 (.39)	.57 (.80)	.04 (.57)	-.06 (.39)	.60 (.81)	.04 (.57)	.26 (.47)	1.01 (.71)	-.08 (.58)
Univ. educated parents				-.94 (.39)*	-.81 (.54)	.04 (.47)	-.68 (.42)	-.68 (.51)	-.02 (.43)
Time preference							.70 (.14)**	.61 (.19)**	-.11 (.22)
Practical orientation							.35 (.19)+	.29 (.24)	-.74 (.13)**
Scientific orientation							-.41 (.13)**	-.25 (.24)	-.23 (.19)
Social orientation							1.19 (.28)**	.77 (.23)**	.45 (.13)**
Constant	-4.59 (.60)**	-5.05 (.70)**	-2.97 (.36)**	-4.17 (.52)**	-4.70 (.73)**	-3.00 (.53)**	-4.93 (.55)**	-5.03 (.78)**	-3.25 (.58)**
Pseudo R-sq		.10			.11			.22	
Model Chi-sq		123.32			182.29			1574.00	
N		1314			1314			1314	

Multinomial logit regression

Standard errors (in parenthesis) are clustered on school/class

Legend: + p < .10, \* p < .05, \*\* p < .01

1=Primary school, 2=Lower secondary school, 3=Upper secondary school (High school) 0=Non-teacher (Base category)

The results of the restricted model (see Model 2 in Table 18.4) confirm the assumptions set out at the start: the preference for teaching at the primary school is class-specific and gender-specific. However, the significance of the parental background effect disappears when the motivation-related dispositions are taken into consideration (Model 3), even though the sign of

the coefficient points once again to women's preference for teaching. The background effect, that is, a non-university-educated father, remains constant for prospective teachers in primary schools, and the high-school track effect can be observed with prospective primary school teachers.

As expected, an interest in short studies influences the preference for teaching at the primary and lower secondary school level. This finding is consistent with the fact that training for primary or lower secondary teacher at a UTE takes less time than regular studies at a university. If the high time preference is interpreted as an expression of a strong preference for the present, it supports the thesis of class-specific self-selection into teacher training at UTE, whereas this factor has no significant impact on the choice of study of graduates intending to teach at upper secondary level.

Comparing the three different categories of teacher, we can observe that those intending to become upper secondary teachers are most similar to the group of students with non-teaching career goals. Candidates for primary teaching resemble those aspiring for lower secondary teaching, but both of these teacher categories differ significantly from the non-teachers. In general terms, the findings suggest that the crucial factors in career choice are based on institution-specific factors; in other words, the preference for a given career comes from not only the subject of the career itself but also from the conditions and context of the planned studies and from institutional characteristics, that is to say, the institution where the studies can be undertaken (see Table 18.4).

#### **18.7.4 Differences between types of higher education institutions**

The fact that the choice of studies is influenced by the institution-specific characteristics of higher education institutions is borne out by an additional comparison of self-selection into university. The goal of the following analysis is to find out whether the institution-specific differences between teacher categories that we found in the previous regression models reflects a more general difference between types of HEIs, i.e. between the university and the non-university sector.

One could presume that confronted with the choice of a more academic study course or a rather applied one, factors such as cognitive performance or the interest in scientific work should affect most such decisions. The results seem to confirm this. The restricted model of the regression on the probability of choosing a university instead of a UAS or a UTE shows that besides gender and age, it is the educational context that impacts the decision of whether to study at a university or at a UAS (see Table 18.5).

**Table 18.5: Probability to choose studying at university**

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender (1=female) (d)	-.19 (.03)**	-.17 (.03)**	-.19 (.03)**	-.16 (.03)**	-.10 (.03)**
Age	-.05 (.03)+	-.04 (.02)+	-.04 (.03)	-.05 (.03)+	-.06 (.03)*
Swiss nationality (d)		-.14 (.05)**	-.15 (.07)*	-.15 (.07)*	-.11 (.06)+
Language profile (d)	Ref.	Ref.	Ref.	Ref.	Ref.
Science profile (d)	.02 (.05)	.03 (.05)	.04 (.05)	.05 (.04)	-.02 (.04)
Economics/law profile (d)	-.05 (.04)	-.05 (.04)	-.06 (.05)	-.09 (.04)*	-.08 (.04)+
Fine arts profile (d)	-.27 (.05)**	-.27 (.05)**	-.27 (.05)**	-.22 (.04)**	-.19 (.04)**
German grades	.06 (.02)**	.05 (.02)*	.06 (.02)**	.06 (.02)**	.03 (.02)
Math grades	.04 (.02)**	.05 (.02)**	.05 (.02)**	.04 (.02)*	.02 (.02)
Distance to university		-.05 (.02)+	-.04 (.03)	-.05 (.03)+	-.04 (.02)
Medium SES (d)		Ref.			
Low SES (d)		-.10 (.04)**			
High SES (d)		.04 (.03)			
Univ. educated parents (d)			.14 (.04)**	.12 (.03)**	.09 (.04)*
Time preference				-.12 (.02)**	-.07 (.02)**
Post-materialist values				-.03 (.02)+	
Materialist values				.09 (.02)**	
Practical orientation					-.16 (.03)**
Scientific orientation					.10 (.02)**
Career orientation					.06 (.02)**
Social orientation					-.02 (.02)
Pseudo R-sq	.13	.15	.15	.22	.32
Model Chi-sq	133.56	178.47	284.94	317.74	336.91
N	1353	1353	1353	1353	1353

Probit regression, reporting marginal effects (Prob.  $y = .77$ )  
Standard errors (in parenthesis) are clustered on school/class  
Legend: +  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$

As expected, better performance in German and mathematics are correlated with the choice of classical university studies. High school graduates from the fine arts track have a lower propensity for university studies. These school-specific effects remain significant also when controlling for family background pointing to the existence of a self-selection based on cognitive criteria as well. If we had to deal with primary effects of social background, the effects would be mediated through the background variables, which is not the case. The coefficients of

the school context variables remain significant in the various specifications; only when controlling for the motivational context can we observe that the effect is partly absorbed by these latter variables. Furthermore, the age variable can also be interpreted as a proxy for cognitive ability, since students can enter high school at different moments during their educational career. Those who are not successful at the entrance examinations the first time have the opportunity of a second trial at a later phase. Consequently, these students are older at the time of the baccalaureate.<sup>267</sup>

Finally, we can observe a significant and persistent effect of social background on the choice for university studies. Students with university graduate fathers or mothers tend less to choose entering teacher training. I interpret this finding as evidence for secondary effects of social background. For status-related reasons, families with an academic background prefer to see their children studying at academic universities rather than at institutions of the non-university sector such as UASs or UTEs. This finding confirms the hypothesis of status differences between the types of HEIs, implying a hierarchy where the traditional universities are higher positioned than the universities of applied sciences or the universities of teacher education. Students opting for traditional university studies tend to be males, younger in age, from other tracks than the fine arts track and performing better in German as well as in mathematics. They have university educated parents and exhibit a stronger scientific and career orientation combined with a lower time preference compared to those aspiring non-university studies.

The fact that the choice of studies and hence career is influenced by institutional characteristics of different types of HEIs is confirmed by an additional comparison of self-selection in the various tertiary institutions, between university, the Swiss Federal Institutes of Technology (ETH), UASs and UTEs (see Table 18.6): the binary divide between the university and the non-university sector can be observed in terms of significant differences between those opting for studies at a university or the ETH and those opting for UAS or UTE studies.

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<sup>267</sup> The correlation between age and marks is highly significant. A linear regression of school marks on age, controlling for gender, specific options and socioeconomic background, indicates a clear and significant impact.



**Table 18.6: Probability to choose studying at different types of HEIs compared to university**

	Model 1			Model 2			Model 3		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Gender (1=female)	-1.26 (0.22)**	0.58 (0.20)**	1.96 (0.34)**	-1.27 (0.22)**	0.46 (0.20)*	1.79 (0.35)**	-0.95 (0.27)**	0.34 (0.18)+	1.38 (0.44)**
Language profile (d)	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Science profile	1.91 (0.40)**	0.54 (0.30)+	0.36 (0.60)	1.91 (0.40)**	0.50 (0.30)+	0.33 (0.57)	1.76 (0.47)**	0.69 (0.26)**	0.98 (0.72)
Economics/law profile	-0.67 (0.27)*	0.13 (0.18)	0.14 (0.50)	-0.67 (0.27)*	0.15 (0.19)	0.19 (0.53)	-0.82 (0.31)**	0.23 (0.20)	0.59 (0.58)
Fine arts profile	0.36 (0.33)	1.13 (0.19)**	1.65 (0.33)**	0.36 (0.34)	1.09 (0.19)**	1.59 (0.32)**	0.38 (0.34)	1.01 (0.22)**	1.42 (0.38)**
German 9th decile	-1.32 (0.51)**	-1.36 (0.34)**	-2.02 (0.44)**	-1.32 (0.51)**	-1.37 (0.36)**	-2.03 (0.44)**	-1.08 (0.52)*	-1.25 (0.43)**	-1.99 (0.51)**
Math 9th decile	0.78 (0.25)**	-0.69 (0.38)+	0.06 (0.47)	0.79 (0.25)**	-0.68 (0.39)+	0.07 (0.50)	0.64 (0.30)*	-0.28 (0.36)	0.59 (0.40)
Univ. educated parents				-0.01 (0.26)	-0.71 (0.23)**	-1.15 (0.32)**	0.01 (0.25)	-0.67 (0.28)*	-1.08 (0.35)**
Time preference							-0.35 (0.20)+	0.21 (0.12)+	0.80 (0.16)**
Practical orientation							0.49 (0.12)**	1.02 (0.15)**	0.95 (0.19)**
Scientific orientation							0.50 (0.14)**	-0.50 (0.14)**	-0.64 (0.11)**
Social orientation							-0.62 (0.10)**	-0.11 (0.16)	0.91 (0.24)**
Constant	-1.18 (0.24)**	-1.65 (0.18)**	-3.74 (0.38)**	-1.17 (0.31)*	-1.31 (0.20)**	-3.25 (0.39)**	-1.60 (0.32)**	-1.53 (0.23)**	-4.16 (0.48)**
Pseudo R-sq		0.10			0.11			0.22	
Model Chi-sq		123.32			182.29			1574.00	
N		1314			1314			1314	

Multinomial logit regression; Standard errors (in parenthesis) are clustered on school/class

Legend: + p < 0.10, \* p < 0.05, \*\* p < 0.01

1=ETH, 2=UAS, 3=UT, 0=university (Base category)

Students opting for UASs or UTEs have a number of characteristics in common whereby they differ from the university sector students, such as high school profile, a lower social background, and in particular a higher time preference, a practical orientation and less scientific interest. The practical orientation is consistent with the mission of the non-university sector HEIs, whereas the lack of scientific interest could of course conflict with observed strategies of academic enhancement of the UTEs and the UASs. The results for students opting for the ETH show that a practical orientation does not necessarily go hand in hand with less scientific interest: here, both coefficients are positive (see Model 3, column 1 in Table 18.6).

### 18.7.5 Summary

The analyses presented above show that those opting for teacher training for the compulsory schools differ significantly in terms of social background, gender and motivations from those studying other subjects. The finding of significant differences in social origin between those

opting for teaching and those who opt for other lines of study within a relatively homogenous group of high-school graduates confirms the central hypothesis of a systematic self-selection into the universities of teacher education (UTE).

Social selectivity and gender exert a strong influence, already in the choice of a music and fine arts or education sciences track in high school. This profile, combined with less pronounced scientific interest, increases the propensity to opt for teaching at the primary or lower secondary school level. Thus, the typical high-school student with this career goal tends to be a woman from a non-academic family who is interested in a professional career that is socially oriented, practical and not very scientifically oriented. Moreover, such students perceive the primary benefit of the desired course of studies as its short duration, practical orientation and flexibility. In addition to the importance of geographical proximity to a teacher education institution, many of these motives argue in favour of an institution-related choice of studies and career, underscored by the fact that prospective teachers for upper secondary schools (who generally do not study at UTEs) do not differ from students studying other subjects at university as far as these factors are concerned.

The observed differentiated self-selection into the universities of teacher education sheds new light on the UTEs as HEIs. Even though the tertiarization of teacher education has brought the UTEs into the educational system up to a par with universities, this new type of higher education institution differs from universities in several respects. Among these, status criteria but also perceived requirements in terms of cognitive capacity affect their recruitment as the analyses revealed. As a result, such differences – whether they are perceived objectively or subjectively – will lead certain students to opt for a UTE and others to prefer university.

If, as the findings tend to indicate, self-selection of teacher education colleges largely depends on institutional characteristics, it is open to question whether the creation of a new type of institution for higher education specifically for teacher education, in response to increased intellectual training and teaching demands, has indeed ensured the optimum composition of the new student population. This puts the question about the best way to prepare teachers in a new light. It is not sufficient to ask only about the different models of teacher preparation in view of its effectiveness for real-life situations in the schools – still a very topical debate (see, for example, Boyd 2009) – if the question of possible biases by self-selection into teacher education is not taken into consideration.

## 19 Comparative analysis

In order to investigate the research question regarding the integration of teacher education into the higher education system and its outcomes, I have looked at different dimensions of the system of teacher education. I have reviewed subsystem-level orientations, I have analysed the institutional setting and discussed actor constellations. Subsequently, I have looked at four different cases of universities of teacher education and I have – based on micro-level data – analysed self-selection into teacher education. The goal of this chapter is to review the results and to make an attempt to integrate the findings and to discuss them with regard to the research questions and the hypotheses.

### 19.1 Teacher education caught between the school system and the science system

#### *The dominance of the education system in teacher education*

I have asked how actor constellations and institutional settings affected the integration of teacher education into the higher education system. The analysis that has been conducted showed in particular that the UTEs are characterized by a predominance of the school system at the expense of the research system which is closely connected with the institutional setting of the UTEs within the college sector. The strong domination of the school system orientation is characteristic of the institutions of teacher education. The cognitive and normative perspectives of teacher education are much more affected by the school system and the instructional practice of the teachers than by the science system which normally serves as a reference for HEIs. This situation is reflected by the fact that a considerable share of the actors involved define and assess the universities of teacher education with respect to their primary function of concrete and practice-based teacher preparation. Most of the documents from the conceptualization phase that have been consulted reflect the importance which all non-academic actors attached to the teaching function and the occupation-specific orientation of the UTEs. Likewise, the information gathered from the expert interviews illustrates that for all non-academic actors, the dominant normative orientation of the UTEs is the school system. Only a minority of actors defines the UTEs as institutions sharing both and being equally part of both functions. Thus, it can be stated that the general public, politicians, active teachers in the field as well as students perceive the UTEs as institutions with a strong occupation-specific mission. Consequently, the way in which practice-based preparation of teachers is organized is crucial for the public perception of the UTEs. Political authorities and ministries expect the UTEs to be

experts and partners as regards educational issues. They expect commitment and responsibility with regard to the school system. In this respect, the handicap of the newly conceptualized UTEs as higher education institutions is the dominance of the teaching function where the scientific perspective has only successively been integrated and developed. The dominance of the teaching function and the school perspective explains the popular, persistent reservation and reluctance to move towards a more scientific approach of teacher education, which in turn makes it difficult for the UTEs to gain acceptance as scientifically oriented institutions of higher education.

The controversies on the strategic orientation within the UTEs as well as the popular critique of the academic drift of the UTEs show that for a large share of the actors involved, the scientific position of the UTEs in the higher education system is less important, as a result of which they do not really see the importance of the research function for legitimizing the scientific position. Generally, students, teachers and the general public do less care about the scientific status of teacher education. On the contrary, the more pronounced the scientific profile of a UTE, the more its effectiveness and adequacy in teacher preparation are questioned by the public (see, for instance, the controversies on the academization of teacher education).

The subsystem-level cognitive and normative orientations in teacher education are still much more marked by the traditional practice-orientation and the organization around the teaching function. The scientific perspective is a new component, albeit constitutive for the new HEIs of teacher education, but remains rather isolated within the daily business of teacher education. It seems that the long tradition of teacher education as well as the balance to be struck between teaching and science make it difficult to effectively fully integrate a scientific habitus and a research orientation, as it is characteristic of the traditional universities. The problem with this dual system-level orientation is that both systems have quite different functions which run the risk of becoming blurred in teacher education (cf. Forneck 2011: 42).

The more scientific recognition a UTE can acquire, the more its position as an HEI becomes consolidated and independent from the political authorities. As for the perspective of the school system and the practice-based preparation of teachers, the UTEs will always be dependent on the political authorities. Accordingly, several representatives of the UTEs argue that they will only gain autonomy in their relationship with the government by consequently pursuing their research orientation and by positioning themselves as scientific institutions of higher education (see Forneck 2009a). But precisely this development causes conflict. The more the UTEs develop their research profile and claim their independence as scientific institution, the more they face critiques from the educational system, be it from the practising teachers in the field or from government officials and members of cantonal councils. It can be

concluded thus, that the UTEs in fact have not been able to really convincingly explain why scientific knowledge and research should be a constitutive part of teacher education. The issue at stake behind this debate is the question about the right way to train teachers and the convictions about good teaching. But since these discussions are not settled, not even among teachers or teacher educators, the UTEs' profile remains unclear. As long as there exist divergent views and profiles of the teaching profession, there can be no common understanding of how and where teachers should be trained. As a result, the character and position of the universities of teacher education will be disputed among the involved actors.

### *Strong cantonal interests in teacher education*

A central characteristic with regard to the institutional setting of the UTEs is their exclusively cantonal governance. As formulated by a respondent in the interviews, the UTEs are the real HEIs of the cantons in contrast to the federal institutions of the UASs<sup>268</sup>. In accordance with the federal regulation of the vocational education and training at the upper secondary level, the federal government also took the lead in the conceptualization and creation of the non-university tertiary level. The creation of the UASs represented a challenge for the cantons concerned with the future of their teacher education. But there was no question of teacher education being systematically integrated into the UASs. The cantons preferred to keep teacher education in their exclusive competence: teacher education is traditionally closely linked to the cantonal school system, and the heterogeneity among these systems as well as in teacher education hampered initiatives to harmonize the systems. In other words, the UTEs represent a compromise with the cantonal interests in higher education. The result of this compromise was the creation of a new type of HEIs exclusively for the field of teacher education. The UTEs were thus conceptualized as HEIs in the sole competence of the cantons.

Academically, the UTEs were positioned similar to the UASs, but they were not conceptualized as being part of the UASs. Some cantons chose to integrate their teacher education into the university of applied sciences. But this was no official guideline. The recommendations by the EDK do not prescribe the institutional form as far as teacher education is concerned (EDK 1995). The lack of an overall strategy in higher education, clarifying the relationship between the different types of HEIs and defining their function, can be explained by the different authorities and competencies for the several different types of HEI. As for the UTEs, the federal government could not act on the national level, for this was the exclusive responsibility of the Cantonal Education Ministers' Conference (EDK). Since the Conference has only coordinating power and can only regulate on the basis of an unanimous agreement, the regional

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<sup>268</sup> The UAS, although being cantonal institutions, are under federal governance sine the federal Act on the UAS applies.

and cantonal institutional differences in teacher education were not harmonized; rather, they were taken as given structural properties. Consequently, the institutional landscape in the field of teacher education rather represents the above-mentioned compromise between the historically evolved cantonal structures and the claims to tertiarize teacher education.

The fact that the institutional model for the UTEs was provided by the UASs explains the organizational similarities between the two types, although the UASs are governed by federal law and are based on vocational training structure at the secondary level. The UTEs, on the other hand, are exclusively cantonally constituted and are based on the general education of the baccalaureate schools. As a corollary to the institutional model of the UASs, the UTEs have been endowed with the same rights as the UASs. The UTEs have similar requirements as to qualification of teaching personnel; the teachers at UTEs have similar work quotas as to teaching time as the personnel at UASs; and neither the UASs nor the UTEs have the right to award doctoral degrees.

Thus, the higher education system is characterized by a parallel development of universities of applied sciences and universities of teacher education. As a result of this parallel development in the higher education system – the creation of UASs at the federal level and the creation of the UTEs at the cantonal respectively intercanton level – the number of HEIs increased substantially. In addition to the seven federal UASs, the cantons created more than a dozen UTEs, leading to considerable, inefficient extension of HEIs.<sup>269</sup> Whereas in the case of the federal UASs, the government monitored the situation using a top-down approach, keeping an overall view of higher education as a system – and for instance restricted the total number of UASs to a maximum of seven –, in the case of the UTEs, new institutions were created in a bottom-up process where an overall view of the system was neglected. Certain cantons took pains to retain a consistently systemic view of all HEIs and integrated or at least combined their UTE with the existing UAS. For other cantons, the creation of a UTE was their only opportunity to become a higher education player.<sup>270</sup> Consequently, diversity increased, because each canton pursued its own higher education strategy. But the specific cantonal institutional setting makes any attempt to further harmonization among the UTEs complicated and difficult to realize. On the contrary, the competition between the UTEs even increases the diversity among them. This also explains the strategy of certain UTEs of collaborating with foreign

<sup>269</sup> The General Secretary of the EDK characterizes this development as “institution-focused development”: “Wir haben eine unglaublich starke institutionenfokussierte Hochschulentwicklung. Man hat für die Funktion der berufsbefähigenden, wissenschaftsgestützten Hochschulbildung einen eigenen Hochschultyp geschaffen. [...] Das ist ein hoher Preis. Wir hatten auf einen Schlag sieben regionale FHs, die zum Teil aus unmöglichen Konglomeraten von Schulen bestehen und dreizehn PHs; zusätzlich zu zehn bis zwölf Unis das doppelte an FHs. Das ist institutionell gesehen viel zu viel. [...] Was noch fataler ist: Jetzt sind die Institutionen da, und die verwirklichen sich selber. Es kommt die Selbstreferenzialität und Eigendynamik von jeder Institution und jeder strebt jetzt nach Vervollkommnung (cf. RESP 021, 30f).

<sup>270</sup> It has, however, to be mentioned that those cantons that do not dispose of their own UTE, will pay the other cantons’ UTE on the basis of the intercanton agreement on the financment of the UAS.

partners, preferably with academic universities.<sup>271</sup> As a result, diversity among the UTEs is currently as high as between the UTEs and the other types of HEI. The institutional profile of the UTEs as a specialized type of HEI is not consolidated, in addition to which its position in the higher education system is not clarified at all. This being so, the UTEs would have well-founded reasons to better align and coordinate their strategy for their institutional development (Forneck 2011: 42).

Yet, the HEIs of the college sector, both the UASs and the UTEs, are somehow limited in their scientific development, since they do not have the same opportunities to conduct research in terms of time and financial resources. But the restrictions of the college sector as to research are not due only to the missing doctorate; in fact, the situation is far more complex. The UTEs are not comparable to the universities as regards research qualifications and the background of the teaching personnel; the relationship between the teaching and research quota; the research culture within the institution; but also the research interests of the students as the analysis of processes of self-selection has revealed. As a consequence, it is questionable whether merely introducing doctoral degrees would significantly boost the research performance of the UTEs and align them with the universities.

On the other hand, the UTEs do generally have powerful management. Unlike the traditional universities, the UTEs have a director or a rector with significantly more competencies than the university rectors. Therefore, UTE managers have quite some room for manoeuvre and can make their own mark. They can set organizational strategy, decide on institutional policy, and influence personnel policy. The case studies have revealed that all of the four UTE rectors substantially designed the strategy their UTE pursued in recent years. Because the autonomy of the university professors is so high, the university rectors wield much less influence as regards operational aspects of the UTEs.

Due to institutional differentiation, the UTEs do not recruit the same potential in terms of research qualification of their personnel. Clearly, researchers at UTEs do not have the same opportunities as their colleagues at universities. All these institutional conditions taken into account, it is obvious that the UTEs cannot be expected to have the same research performance as the traditional universities with their more favourable research environment. However – and this should be kept in mind when comparing the different institutional types – both the UTEs and the UASs have another mission and role as HEIs, and this is part of the politically determined differentiated setting of the higher education system. Yet this setting is at stake when UTEs or UASs tend to align with the traditional universities.

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<sup>271</sup> Researchers from rather small UTEs can participate in big consortiums and thus, flanked by impressive academic partners, have more impact within the small Swiss scene of UTEs and be more successful in the competition for limited research funds (cf. RESP 026, 24).

*Competition within and between sectors of higher education*

The higher education system is characterized by cooperation and competition between different types of HEIs (i.e. between the sectors) offering similar programmes as well as within the sector of the same institutional type. Thus, each UTE is aware of the fact that they do compete with each other, in particular the neighbouring ones, and the relationship with universities is characterized by cooperation as well as competition. The UTEs compete for students, resources, researchers and academic status within the hierarchy of the system. The relationship between academia and politics, i.e. between for instance a cantonal UTE and the cantonal government, depends on the degree of exclusivity. The interview material showed that those UTEs which are the sole HEIs in their canton enjoy preferential access to their government and good relations with the ministry. Consequently, only the UTE gives the canton the status of a “university canton”, enabling it to participate in higher education policy at the national level, such as the canton of Thurgau. It is this reciprocity for both sides that brings certain UTEs in a favourable position. On the other hand, those UTEs that share the status of tertiary institutions with a university or a UAS do not generally have the same privilege. These cantons have an interest in differentiating between different types of HEIs, and they do not assign the status of a university to the UTEs.

The relationship with a local university can take either a rather complementary or a more competitive form and consequently affects the development of the UTE. Thus, whereas the PHZH sees itself to some degree as competing with the pedagogical department of the neighbouring university, also hosting teacher training for the high school level, the situation for the UTEs in other cantons differs substantially. In Lausanne, the HEP VD does not really compete directly with the university as there is no department for pedagogy.<sup>272</sup> Consequently, institutional collaboration is easier, or at least less hampered by competition and status struggles. The situation is even more comfortable for the PH FHNW as well as for the PHTG, since the respective universities, Basel and Constance, benefit from the UTEs. They do not have their own pedagogical department. And they have only been able to expand their scope in collaboration with the local UTE. The PHTG finances a chair for educational sciences at the University of Constance, whereas the PH FHNW co-finances a chair for pedagogics at the University of Basel. Consequently, teacher education is organized entirely at the UTE for all categories of teachers, partly in cooperation with the university as to subject-specific education.

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<sup>272</sup> In the social sciences department of the University of Lausanne, there is a department of psychology and also a research unit for educational sciences. However, there is no classical pedagogical chair or an important educational sciences department in Lausanne. Nor does the University of Lausanne have a long tradition in educational sciences, such as for instance the University of Geneva, with the faculty of psychology and education (FPSE).



In their relations with the universities, the UTEs have assumed the role of a junior partner. As long as the UTEs accept this role, this is the perfect setting for the universities because they can keep their dominant, higher-status position. However, there are certain representatives of the UTEs who are less and less comfortable with this situation. They refute the universities' role in training the UTEs' academic personnel, and they claim the right to award doctoral degrees and to be able to train their own young generation of researchers. In this confrontation, the universities are not really prepared to cooperate on an equal basis and to share responsibilities and functions. The example of the canton of Zurich illustrates this sort of competition between university and UTE: the university continues to train teachers for the general upper secondary level, whereas all other categories of teachers are trained at the UTE. A strong interest in expanding their sphere of influence is revealed by the fierce competition between the universities and the UTE as to the new master's programmes in subject-related didactics.

As has already been mentioned, the issue of doctoral degrees represents a further source of conflict between the traditional universities and the UTEs. Until now, the universities have held on to their monopoly for the academic prerogative of awarding doctoral degrees. Both the UASs and the UTEs are formally excluded from doctoral training. However, from the side of the non-university sector, there is growing demand for doctoral programmes and the UASs and the UTEs are increasingly expressing a desire to offer their own doctoral programmes. They put forward the need to train their own personnel. Furthermore, they argue that in order to fully implement the science function at the UTEs, they would also need to host fundamental research. In fact, many researchers are already employed as research assistants at UTEs writing their PhD, but they need to be supervised by a university professor – a situation which is perceived quite differently by the UTEs and the universities. Whereas representatives from the UTEs view such a practice as intolerable, representatives from other sectors consider this type of collaboration as an adequate solution given that the UTEs, in general, have a more modest scientific track record. And finally, the UTEs are of course limited in their scientific development without the full academic prerogatives. Moreover, recruiting researchers proves to be difficult if alternative posts at universities are better equipped and endowed with the full range of academic prerogatives.

## 19.2 The challenge of integrating research and teaching

The significance of research for academic status is crucial for institutions that aspire to university status. (Trow 1984: 140)

The second research question inquired as to the integration of the research function into teacher education. Here, the case studies revealed similar patterns and a common trend to adapt the university model where teaching and research are integrated at the lowest organizational level. Thus, several UTEs can be observed developing towards a model with competence centres involving the research and teaching function.

The way in which the newly conceptualized universities of teacher education have integrated the research function best describes their self-understanding as HEI and their positioning within the higher education system. Most UTEs started with the establishment of a separate department for research and development which satisfied the formal requirement of the performance mandate but which was not really connected and integrated with concrete teacher preparation. Yet this strategy of continuing the status quo of practice in teacher training complemented with an annexed research group was not sufficient for realizing teacher preparation at the tertiary level and developing the UTEs as institutions of higher education. The major drawback with this model is the risk of an isolated research department with no link to the UTE's other activities. And due to the fact that the UTEs do not have the right to award doctoral degrees, it is difficult to recruit research assistants for UTEs. Consequently, with this model, the UTEs as institution of higher education remain particularly distant from research and science and cannot really develop any scientific discourse in teaching and learning.

Meanwhile, however, the research departments account for a considerable share of the overall budget that cannot be neglected, and the UTEs realize that the quantity and quality of their research output is an important element in the position of the UTEs within the higher education system. As a result, the management of the UTEs could no longer ignore the activities of the research departments. In such a situation, research becomes a key element in the strategy of the HEIs and the management treats it using a top-down approach. At the same time, for most respondents it is obvious that research at the UTEs have not fulfilled its potential. They acknowledge that research has not yet achieved the goals that were set in the conceptualization phase; what is more, research output is extremely heterogeneous – there is highly competitive research that meets international standards but there is also low-quality research with little impact. Furthermore, research has not yet achieved its relevance for the professional organizations and for the development of the teaching profession.

In the case of the HEP Vaud, the strategy of upgrading existing teacher training schools and organizing research in separate departments was a complete failure. Consequently, in a second attempt, the political authorities reconceptualized the UTE following the model of the university. Research and teaching were combined within small, thematically grouped units. This form of integration of research and teaching at the smallest unit, the individual professorship, is constitutive for the academic units and is now being introduced in more and more UTEs. The PH FHNW implemented this model under the new director and the PHZH just started introducing a comparable model by establishing a small number of chairs with the goal of better integrating research and teaching. It seems that the UTEs have realized that it is not enough to be formally an institution of the tertiary level in order to really represent a 'university of teacher education' but that only the full integration of research as a constitutive part will make it possible to practice a tertiarized form of teacher education. This being so, these UTEs are pursuing a strategy of strengthening the scientific habitus and the research profile. They are organizing their institutions according to the university model, introducing chairs which they try to fill with researchers holding qualifications similar to those of university professors. Yet although an enhanced scientific orientation is constitutive for the institutional identity of the UTEs, there is no unanimity among teacher educators about the appropriate research strategy for UTEs. In particular, teacher educators from the former normal schools are rather opposed to a pronounced academic drift.

Compared to the strategy of the PH FHNW geared toward the university model, the PHZH is rather aiming at a third way, a strategy which, although it involves more focused research activities, keeps a clear orientation on the practice of the school system. Taking into account the views of external actors, this strategy seems well suited for positioning the UTE within a separate sector, distinct from the university sector.

In conclusion, we can summarize by saying that the given institutional setting and the specific actor constellation in the Swiss higher education system led to an institution-focused development. Teacher education was integrated into the higher education system by creating a new type of HEIs; the system thus differentiated by integrating the function of teacher education. However, linking the education and school system with the scientific system of higher education within the organization of the new UTEs bears conflict. Although this institutional development reconciled the different cognitive and normative orientations within the system and achieved a compromise between actors' interests, this came at the price of a certain inconsistency within the structure of the higher education system, in particular as regards the scientific role and position of the new UTEs.

The function and mission of research in teacher education are not only hampered by the dominant normative orientation to the school system: further difficulties arise from political intrusion in teacher education. Political authorities confront the UTEs with much more demands and imperatives than they do with the universities. Consequently, the content of curricula, the subject mix, and the structure of the degrees but also the organization of the programmes, the amount of practice-based preparation and related issues are publicly debated and lead to political intervention – a situation that would not be imaginable for the university training of physicians or lawyers.

### **19.3 Positioning the UTEs within the higher education system**

In order to discuss the UTEs' position within the higher education system, I have developed a coordinate system combining two principal dimensions that structure higher education systems, namely the dimension of liberal general vs. vocational and the dimension of teaching vs. research focus (see chapter 5.4, page 82). By organizing them into a coordinate system, I can show that there are more than two sectors opposite on a one-dimensional scale equating general orientation with fundamental and vocational with applied research. Rather, I identify four quadrants – following Stokes' discussion of applied and basic research, who identifies, in addition to pure basic and pure applied research, a third combination called "Pasteur's quadrant" which combines the consideration of use characteristic for applied research with the quest for fundamental understanding characteristic for basic research (cf. Stokes 1997). By analogy, I argue that in higher education, merely differentiating between the university and non-university sectors does not suffice to describe and categorize the variation among HEIs. Rather, the degree of vocational orientation and the degree of research intensity represent different dimensions that allow more than two categories of HEIs. Thus, by combining the two dimensions, four different ideal type profiles of HEIs can be identified: in the 1<sup>st</sup> quadrant, the free university faculties are identified, representing a disciplinary organization model; in the 2<sup>nd</sup> quadrant, I locate the liberal arts colleges, offering comprehensive undergraduate studies in arts and sciences; in the 3<sup>rd</sup> quadrant, professional colleges are positioned; and in the 4<sup>th</sup> quadrant, HEIs with an occupation-specific orientation and a high research profile are identified. These HEIs are typically institutes of technology and management with a strong research involvement but with at the same time close links to industry and practice (see Figure 19.1).

The figure below applies the described coordinate system to the different categories of HEIs in Switzerland: the traditional universities, the Federal Institutes of Technology (ETH), the universities of applied sciences (UASs) and the universities of teacher education (UTEs),

positioning them in terms of degree of vocational orientation and degree of research orientation (see Figure 19.1). It is important to note that this diagram represents only ideal-type categories which are positioned based primarily on their official mission and function in higher education.

The universities are located in the first quadrant, comprising the classical faculties of arts and sciences, traditionally organized according to a disciplinary model. Most university courses, although specializing within disciplines, have a rather general orientation without direct occupational knowledge. The focus lies on teaching and research within the disciplines (Bleiklie 2005). The Federal Institutes of Technology, as high-ranking universities for sciences and engineering, are located in the fourth quadrant, representing occupation-oriented degree studies such as engineering, architecture, or management with a primary focus on the specialization for the labour market. The studies offered by the ETH are embedded in a strong research environment, but these research activities, albeit fundamental in character, are geared to industry and implementation in practice.<sup>273</sup> However, the degree of vocational, occupation-specific orientation on the one hand and research orientation on the other varies by disciplines and country-specific factors. Thus, medicine or law, which are studies with a strong occupational orientation for instance, are offered by the universities, whereas the ETH also offers mathematics or sciences studies. Consequently, the boundaries between the institutional types of HEIs overlap (see the broken circles in Figure 19.1). Nevertheless, I argue that the ideal-type position of university-type HEIs is located in the 1<sup>st</sup> quadrant whereas the Federal Institutes of Technology are located in the 4<sup>th</sup> quadrant. The two types of HEIs principally differ in terms of vocational and occupation-specific orientation.

The two institutional types of the non-university sector – universities of applied sciences and universities of teacher education – are located in the left part of the diagram representing a lower degree of research orientation and a stronger teaching focus.<sup>274</sup> The UASs, representing tertiary education with a vocational profile, thus occupy a position in the third quadrant. They have evolved from higher professional education and training institutions at the secondary level respectively tertiary B-level (cf. the arrow in Figure 19.1). The UASs are by definition to be positioned within the 3<sup>rd</sup> quadrant, since they were conceptualized as tertiary alternatives to

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<sup>273</sup> See for instance the self-portrait by the Swiss Federal Institute of Technology Zurich: “ETH Zurich is one of the leading international universities for technology and the natural sciences. It is well-known for its excellent education, ground-breaking fundamental research and for putting its new findings directly into practice. 21 Nobel Laureates have studied, taught or conducted research at ETH Zurich, underlining the excellent reputation of the institute.” ([www.ethz.ch/en/the-eth-zurich.html](http://www.ethz.ch/en/the-eth-zurich.html))

<sup>274</sup> Here, one could also have referred to the distinction between basic and applied research and described the middle of the diagram by a focus on applied research. However, this would imply that there is a continuum in terms of research orientation from practically no research to applied research to a high amount of basic research, an understanding which is of course not without objection. Since the distinction between applied and basic research is becoming increasingly blurred and is refuted in particular by the social sciences, I deliberately do not refer to this categorization in this figure. Furthermore, there are more elaborated concepts to classify the type of research orientation (see, for instance, Stokes’ categories of “pure basic”, “pure applied”, and “use-inspired basic research” in Wolter et al. 2002: 713).

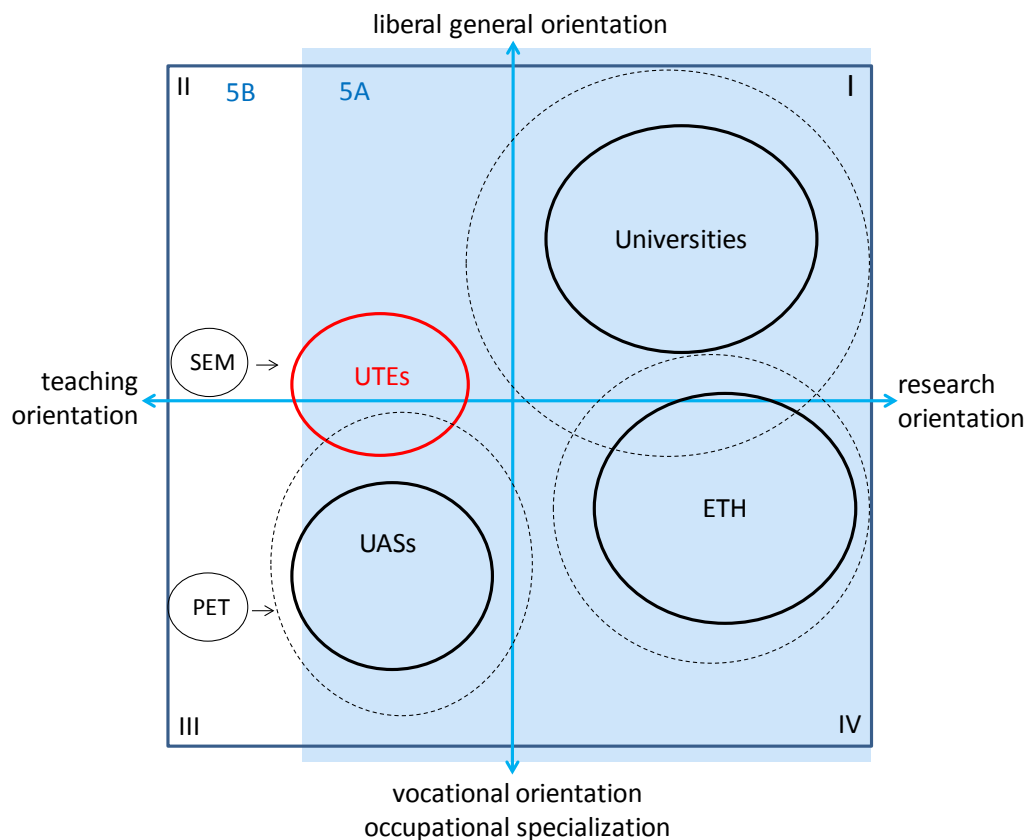
university and ETH, different from the university sector, featuring applied research and with a stronger teaching focus. The student clientele for whom the UASs were designated were graduates from vocational training – a group not entitled to enter university studies. The UASs are organized according to the professional teaching and specialization they offer. However with the integration of further fields of study such as social work or the fine arts, the UASs' profile also extends towards a more general orientation. However, the vocational profile has remained characteristic for UASs. Even the programmes in social sciences, the humanities or the fine arts still have a clear vocational profile, aiming at occupations such as social work, nursery, translation and interpretation, dancing, music, etc.

Yet the position of the newly established universities for teacher education (UTEs) is not clear-cut. Teacher education, although preparing for a specific occupation, has traditionally been, and still is, characterized by a broad comprehensive approach. The UTEs have evolved from the former type of teacher education organized in normal schools at the upper secondary level (see the arrow in Figure 19.1). The traditional normal schools, representing a special form of high schools, were positioned in the general sector of the upper secondary level or on the post-secondary level outside higher education. However, most of these institutions were mainly committed to a liberal general education involving arts and sciences, pedagogy and psychology. The occupation-oriented and practical training was only one element of this education among others. With the creation of UTEs, teacher education has been brought to the tertiary level, officially – and by analogy with the UASs – assigned to the non-university sector. Their principal mission is still the training and education of the future teachers, but their mission has been expanded to research. The UTEs' research mission has been prescribed as being applied and geared to the teaching practice. Students of UTEs come to a great extent from the general baccalaureate schools and not from the vocational training. Also, the UTEs' curriculum is rather geared to the humanities and is much less technical than the typical UAS studies. Furthermore, the practising teachers in the field are much less involved in the training of the teachers than is the case with professional studies at the UASs.

Considering all these observations, I would therefore argue that the UTEs differ from the UASs in terms of vocational orientation. Looking at the UTEs' study programmes, it becomes clear that the UTEs are still relatively committed to a liberal general education of the future teachers – at least concerning the training of the primary school teachers. Disciplinary studies often go hand in hand with pedagogical content matter training future teachers to teach these subjects. Practice-based training is of course part of studies in teacher education, but the UTEs in general draw more on the classical university disciplines than the UASs. The UTEs are thus positioned between the 2nd and the 3rd quadrants. This positioning takes into account in

particular the normative-cognitive orientations identified in the institutional setting of the UTEs. Furthermore, it is exactly this perception of difference between UASs and UTEs that representatives of teacher education put forth in order to argue for further differentiation and to establish an identity of their own, different from the UASs: the liberal general tradition of the normal schools, the general secondary education of their students, the rooting within the classical disciplines.

**Figure 19.1: Ideal-type position of HEI-types within the higher education system**



*Legend:* SEM (former normal schools, teacher training seminaries), PET (Post-secondary professional education and training; i.e. tertiary level B education), UTEs (Universities of teacher education), UASs (Universities of applied sciences), ETH (Swiss Federal Institutes of Technology)

Source: Author's own representation

### *The UTEs' search for identity within the binary higher education system*

Originally, the universities of teacher education were created on the basis of the model of the universities of applied sciences and thus assigned to the non-university sector. With reference to the coordinate system discussed above, the binary structure introduced with the creation of UASs was also made along the axis describing the research intensity. Although the UASs were introduced by referring to their vocational orientation, their lesser research intensity has been a constitutive element in structuring higher education from the beginning. The transformation of

the former teacher training schools into HEIs of the tertiary system represented an upgrading and improvement of their status, since the former normal schools were not part of the tertiary system. The decisive criterion for this upgrading and transformation is the introduction of the research function and the new profile of a HEI that also involves research.

However, referring to their liberal general orientation, the UTEs have always seen themselves as much closer to the universities than to the vocationally oriented UASs, and wished to differentiate themselves from the UASs. Representatives of the UTEs also explain their perceived different status by the fact that they recruit a different type of student body. According to this line of reasoning, the UTEs, in contrast to the UASs, principally draw on graduates from the general baccalaureate schools (i.e. the high schools). However, this point of view considers only the first dimension of the coordinate system presented, the dichotomy between vocational and general orientation, and ignores the horizontal dimension representing the research orientation. As a result, differences in the institutional setting, the research mission and performance as well as aspects of academic qualification of the personnel are not taken into account. For, as the analysis revealed, both the UTEs and the UASs differ substantially from the universities as to these aspects. For instance, it has been shown in the analysis that future UTE students differ more from students of regular universities than from those opting for a UAS, thereby implying that the notion of proximity of UTEs to universities in terms of student composition has to be revised. Furthermore, with the integration of other fields such as social work, the fine arts and health-related professions into the UASs, the composition of the UAS students has changed (cf. Weber et al. 2010a). The observed discrepancy between individual statements of representatives of the UTEs as well as the official strategy of their sector organization on one hand claiming the status of a third type of HEI and the formal institutional regulations or the views of external actors on the other hand, illustrate the contradictions inherent to the present system organization in higher education.

On account of the specific actor constellations and institutional conditions of the different HEI types in the higher education system, the UTEs' position of being considered as a third institutional type of their own proves to be a rational strategy. The UTEs' overall goal, as new institutions of higher education, is to establish and strengthen their own identity and to find their place within the higher education system. Their main interest is to secure their own survival and to ensure the supply of resources. Consequently, they have a clear interest in differentiating themselves from other institutional types; in particular, they want to distinguish themselves from the UASs, since they fear being subsumed under the UASs and thus caught within the "less noble" (Teichler 1988a: 362) college sector. This implies that there exists an



informal hierarchy along the vertical dimension where the vocational orientation is generally viewed as being lower in status.

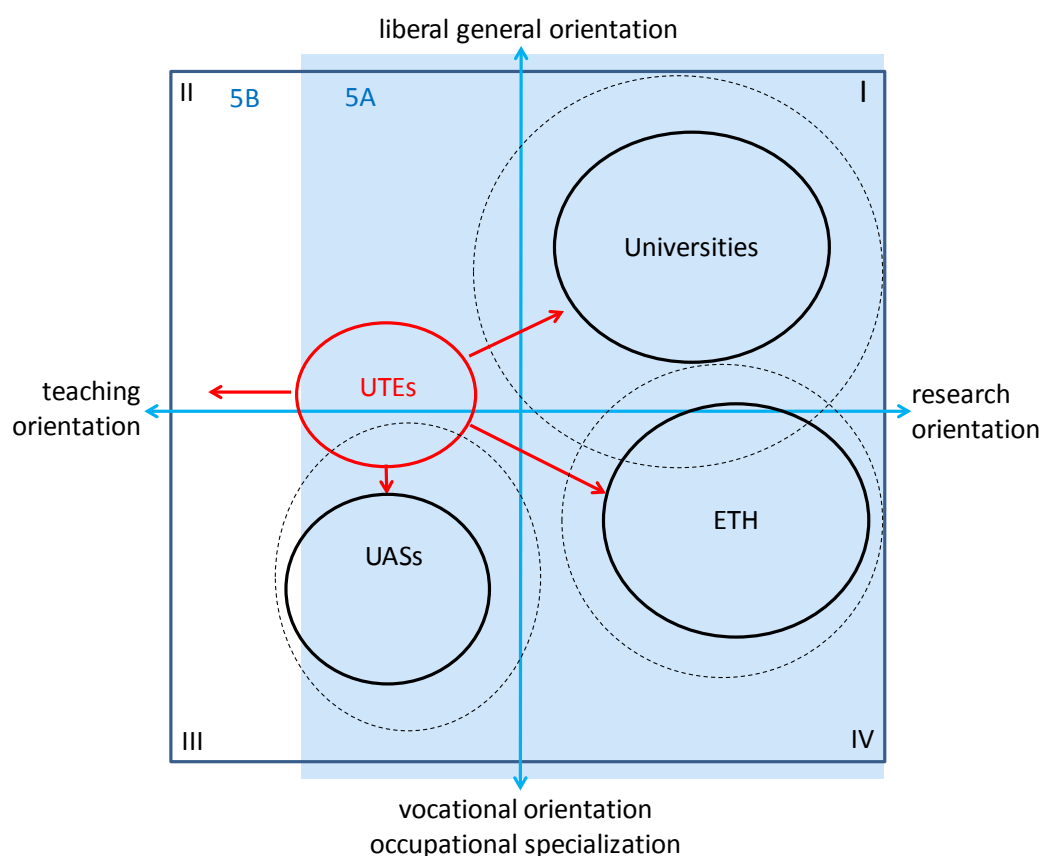
Although teacher education remains a vital requirement for any cantonal government (i.e. the demand for trained teaching personnel remains constant), the institutional form of the UTEs is not a necessity per se (Forneck 2009a). It is absolutely open to question in what institutional setting teachers are to be trained. The newly conceptualized UTEs are one possible institutional form that for the moment is relatively well suited to the prevailing cognitive normative orientation, but other forms could also be considered. And in fact, alternatives to the UTEs do exist: teachers in the canton of Geneva are trained at university, and other cantons have integrated their UTEs into the UASs. Therefore, the UTEs' vital interest is to find and defend their own position in higher education. Consequently, their strategy is to achieve further differentiation in the higher education system. They try to distinguish themselves from the universities so as to avoid being compared and measured with the same academic standards as the universities, and they try to distinguish themselves from the UASs in order to avoid being mixed up with them and confined to the college sector.

The UTEs' strategic development that has been identified in this study is to enhance the research orientation and thereby to advance in the status hierarchy. In terms of the coordinate system, this academic drift can be described as an aspiration to develop towards the first quadrant (cf. the red arrows in Figure 19.2). This drift has been identified for instance in the strategy to develop research capacities and to further integrate the research function with the teaching mission, in the demand to award doctoral degrees and in the claim to integrate all educational science studies within the UTEs or to integrate teacher education into the universities. Promoters of an enhanced research orientation and academic identity are generally found among the management of the UTEs, the heads of research units and the research personnel who generally take up the scientific orientation within the HEI. Among the teacher unions, this strategy is supported as long as they can expect an increase in status for the teaching profession as such. But they are well aware of the rather sceptical attitude of their members when it comes to the question of further academization.

Yet the trend towards further academization and scientification of teacher education is opposed by external actor groups attached to a traditional teacher image and representing positions of teacher training which are hostile towards further scientification. Among these groups, the view prevails that teacher education has not benefited much from science and academia and that teacher education could be divorced from the real problems of the practitioners in the field if the scientific orientation dominates. These positions are found among external actor groups such as certain – mainly right-wing – political parties, the cantonal

councils or the general public as well as among teaching practitioners in the field. Furthermore, there is another tendency that can be identified and that represents a more occupational orientation. These forces have their sources within the system of teacher education itself and can be identified among teacher educators, students, or the teachers in the field who are advocating a type of professionalization that does not entail more research and scientification but rather practice-based learning and occupational specialization. In this understanding, the focus of the training would not be the content of the subjects to be taught in schools but rather the knowledge of the occupational practice. As a result, the UTEs can be identified as the institutional type that is most torn by conflicting interests and tensions due to divergent forces as to its identity and position within the higher education system (see Figure 19.2):

**Figure 19.2: Structural dynamics within the higher education system**



*Legend:* UTEs (Universities of teacher education), UASs (Universities of applied sciences), ETH (Swiss Federal Institutes of Technology); Source: Author's own representation

There is substantial academic drift among the UTEs. Some pursue a rather disciplinary strategy aiming at integrating university departments of pedagogics (1<sup>st</sup> quadrant), while others aim at a faculty of education, comprising educational sciences as well as the occupational training of all categories of teachers (4<sup>th</sup> quadrant). Contrary to the academic drift movement, there have been identified endeavours to strengthen and improve the occupational orientation, to enhance practice-based training and to make it more efficacious (3<sup>rd</sup> quadrant). But there are also

reactionary tendencies trying to reposition teacher education according to traditional ideas within a vocational setting, outside higher education (see the different arrows in Figure 19.2).

The four case studies have revealed these divergent normative orientations and interests among the UTEs. Even the rectors or the heads of units have different views as to the degree of the appropriate research orientation in teacher education. And among the teacher educators positions diverge even more. Consequently, the UTEs' present position and institutional identity is characterized by ambiguity as to the function of research and its role for teacher preparation. Virtually all respondents representing managerial functions agreed that the UTEs needed to enhance their research orientation and to improve their research performance. But then many expressed objections, arguing that teacher education should not become a traditional university, that the UTEs need to keep their close link with practice and have a strong education orientation. However, there exist many nuances as to the proposed degree of research orientation in teacher education among the UTEs themselves. The outcome of the conflicting forces identified in teacher education is open and varies depending on the prevailing relation between the system-level normative orientations of an individual UTE, on specific institutional settings as well as on the dominant actor constellations within and outside of the UTEs. As a consequence, the system of teacher education, the field of the universities of teacher education, displays considerable institutional and organizational heterogeneity.<sup>275</sup>

A major source of conflict can be identified in the contradictions and inconsistencies inherent in the conceptualization of the UTEs. These contradictions primarily arise from the fact that actors often consider only one of the structural dimensions discussed when categorizing the UTEs. Thus, policy-makers or external actors tend to understand the binary divide in terms of different degrees of research orientation resulting in a university sector with a stronger research focus on the one hand, and a non-university sector characterized by a lower degree of research orientation – traditionally described by the term 'applied research' – comprising both UASs and UTEs. In contrast, those emphasising the difference between the UTEs and the UASs tend to refer to the dimension vocational specialization vs. liberal-general orientation. As I have shown, these misunderstandings can be solved by combining the two dimensions and arranging them in a coordinate system. Once this is done, we can identify four categories of HEIs, each of which occupies a specific position within the four quadrants. From this angle, the UTEs differ not only from the universities but also from the UASs.

Consequently, when seen through this lens, teacher education as an organizational part of UASs can only then be satisfactorily realized once the UASs define themselves as comprehen-

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<sup>275</sup> As to this aspect, see also Forneck (2009a) who identifies a major source of risk for the UTEs in the fact that they are not consolidated, either in terms of content or in terms of quality.

sive institutions of higher education with a specific profile distinct from the universities but with varying degrees of vocational specialization, and once the different institutional setting between UASs and UTEs as to federal or cantonal governance structure is balanced.

## 19.4 Differentiation and convergence

The evidence with regard to differentiation and convergence is not clear cut. First of all, this is a dynamic process of structural change that is still ongoing. As a consequence, the outcome is not clear, and thus it is open whether the system further differentiates or rather converges. Although the introduction of UASs can clearly be understood as differentiation of the higher education system, tendencies towards convergence have also been identified.

The differentiation of the Swiss higher education system into two sectors with the creation of the UASs was quite explicit insofar as that the new type of HEI was defined as being different from the existing universities. The UASs were given a different mission, and a different student population was the focus. In this regard, the diversity introduced by the national Parliament was an explicit external diversity (Birnbaum 1983; Huisman 1995: 22) relating to system, structure, degree programmes, procedures and students. Consequently, differentiation occurred along the traditional binary divide between general and vocational orientation.

The binary structure is constitutive for the understanding of the entire educational system in Switzerland. Thus, the binary divide at the tertiary level represents to some sort the dual structure of the upper secondary education comprising on the one hand the general baccalaureate schools preparing for university studies and on the other hand the vocational education and training sector. The non-university sector was developed in order to complement vocationally oriented upper secondary education by an educational offer at the tertiary level. Although the new sector was characterized as being “equal but different”, the equality was only considered with regard to the level within the education system, i.e. the tertiary level.<sup>276</sup> Thus, a degree from a UAS was considered as a regular tertiary degree from non-university higher education and therefore comparable to degrees from the universities. The formula never meant equality as to the academic value of the degrees. Consequently, the universities do not and have never regarded UAS degrees as being equivalent to their degrees.<sup>277</sup>

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<sup>276</sup> This fact is illustrated by the French version of the famous formula, précisant that the equality is meant as to the educational level: “[...] de *niveau* équivalent, mais de nature différente”, whereas the German version, is more general “*gleichwertig*, aber andersartig [emphasis added]” (Conseil fédéral 1994: 11).

<sup>277</sup> This fact is illustrated, for instance, by the conditions regarding the transition from a UAS bachelor to a university master’s programme (CRUS et al. 2010a; CRUS et al. 2010b).

The system and programme differentiation (Weber et al. 2010a) realized with the introduction of the UASs as a new type of HEI cannot be understood solely in terms of functional differentiation. For, although official statements stated the opposite, the UAS sector always had a minor status as to the academic degrees delivered. Therefore, in all fields of study where there exists a counterpart at the university or at the ETHs, the UASs hold a lower status within the HEI hierarchy. The system can only be described as functionally differentiated in the case of a number of subjects such as the fine arts, the performing arts and the health professions, where the study offer is restricted to the UASs. Consequently, a large number of graduates from the general baccalaureate schools enter these programmes at the UASs. The informal vertical hierarchy relating to the different degrees awarded as well as the different research profile of the UASs and universities can explain the status competition among the different institutional types as well as the reluctance of the UTEs to be assigned to the UASs. Furthermore, the stronger the informal vertical hierarchy becomes, the more the UASs and the UTEs tend to develop academic drift. In other words, the Swiss higher education system displays a combination of functional (i.e. horizontal) and vertical differentiation. Accordingly, the problem for the UTEs is to find their identity and position within a horizontally and vertically differentiated higher education system in which the hierarchical differentiation is rather implicit and informal.

The research mission of the UASs was defined as being applied whereas fundamental research was assigned to the traditional universities. This type of differentiation gave the universities a monopoly on scientific training at the doctoral level. In this function, they provide the academic training of the teaching personnel for the other institutional types as well. The doctoral education remained at the universities that were also responsible for fundamental research. However, the non-university sector, first the UASs then the UTEs, started to question this division of labour. With the integration of further disciplines into the UASs as well as with the introduction of masters' programmes, the UASs extended their scope. In terms of personnel recruitment as well as to their student body, the UASs evolved towards the universities. The increasing recruitment of teaching personnel directly from the universities without a professional background, as well as the recruitment of students from the general baccalaureate schools, reveal a blurring of boundaries between the university and the college sector (cf. Weber et al. 2010a). Similarly, the UTEs also exhibit tendencies of academic drift; they strengthen their research function and try to increase their research production. The call for the introduction of third cycle programmes at UASs and UTEs is a further step in the trend towards academic drift. Taken together, the structural development within the non-university sector challenges the official differentiation of the Swiss higher education system into a university and a non-university sector.

If the diversity is to be retained and an emerging, rather informal differentiation in terms of status is to be prevented, the degrees of different institutional types will probably have to be formally differentiated and strengthened in profile. This “strong” differentiation (Lepori and Kyvik 2010) would require firm regulation by the state (Bleiklie 2005: 35). Consequently, a concerted vision by legislator and government would be required as to the mission and role of the UTEs compared with the other institutional types. The implications of a higher education policy in terms of differentiation can be illustrated by the example of the doctoral degrees. There are two possible ways the non-university sector can implement doctoral programmes. One way would be for the UASs and UTEs to introduce doctoral programmes, claiming to offer doctoral degrees on a par with those of the universities. This would mean that the UASs and the UTE would have to upgrade their staff and invest in more selective recruiting strategies in order to achieve qualification of scientific personnel on a level with the universities. In those disciplines that also exist at universities, intra-disciplinary pressures would probably be strong enough to force the UTEs and the UASs to meet the required standards of academic work. On the other hand, and in particular with specific disciplines that lack broad university benchmarks, the non-university sector could decide to introduce their own third cycle programmes with a different profile, trying to satisfy to some extent both systems of reference, the scientific norms as well as the occupation-specific ones.

In the first case, the external diversity of the higher education system would tend to decrease, with UASs and UTEs pursuing the same academic status and profile as the traditional universities. Such a scenario of convergence could result in a new institutional landscape in higher education with a considerable increase of HEIs offering similar degree programmes and competing for the same student clientele. Differentiation would then emerge successively in terms of research quality; status and reputation (cf. Bleiklie 2005). In the latter case, the specific profile of the UASs and UTEs would be sharpened and degrees would probably become more differentiated inasmuch as that universities would grant the ordinary academic degrees (B.A., M.A., Ph.D.) whereas the UAS and the UTEs would grant occupational degrees<sup>278</sup>. The typical degrees from institutions of teacher education would be the degrees in educational sciences such as, for instance, educational bachelor (Ed.B.), educational master (Ed.M.) or educational doctor (Ed.D.)<sup>279</sup>. In such a scenario, the UTEs could have their own requirements for the doctorate. They could also introduce their own categories and qualifica-

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<sup>278</sup> Vocational degrees are commonly earned from occupation-oriented study programmes in medicine, law or theology.

<sup>279</sup> See, for instance, the comments on this issue by the representative of government from the Canton of Vaud : « Il est nécessaire que les trois types de hautes écoles puissent former au plus haut niveau, c'est-à-dire bachelor, master, PhD, mais en gardant leurs spécificités. Alors évidemment le doctorat académique universitaire n'est probablement pas pertinent à cent pourcents pour des HES. ».

tions of personnel, different from the universities<sup>280</sup> and thus have a specific category for teacher educators characterized by both scientific qualifications and practice-based competencies. These personnel could also improve the communication between theory and practice, as is crucial in the practice-based teacher preparation.<sup>281</sup>

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<sup>280</sup> A group of high-level representatives from different HEI types even proposes that the non-university sector introduces – in those disciplines where the cooperation with the universities is not appropriate – specific variants of third cycle degrees, equal in rank but differently named: “Falls sich in einer bestimmten Studienrichtung ein gemeinsames Dokotratsprogramm nicht sinnvoll realisieren last, sollen die nichtuniversitären Hochschultypen auch andere, international lesbare und *dem Doktorat gleichrangige, in der Benennung jedoch davon unterschiedene Varianten einer dritten Qualifikationsstufe* [emphasis added] entwickeln können“ (Folkers: Sechs Thesen zur Typologie, in NZZ, 11.9.2013).

<sup>281</sup> This would, however, imply that competencies in teaching practice were standardized to some extent and made measurable in order to identify mastery. For, the requirement of a degree from teacher training as well as some years of practice – as it is commonly expected for teacher educators – does not say very much about the professional competencies and the degree of mastery in teaching.





## **CONCLUSIONS**



## **20 Conclusions and discussion**

This dissertation study provided an empirical investigation of recent changes in the Swiss system of higher education. The subject matter has been the establishment of specific institutions of higher education for the training of teachers – the so-called universities of teacher education (UTEs) – and their integration into the higher education system. The study raised questions about structural dynamics such as differentiation and convergence within the system, thereby adding to the discussion on differentiation in higher education policy research. By now, this research literature has accumulated an impressive body of research and provides a basis for describing and conceptually comprehending such processes. However – and this is my argument for the theoretical framework – if one wishes to explain structural dynamics in higher education systems and to conceive them on a theoretical basis, one has to draw on general theoretical approaches of the social sciences.

### **20.1 A system-theoretical perspective on higher education**

On account of the specific nature of higher education systems, in particular the fact that they participate in both the education system and the scientific system, a system-theoretical perspective that also allows for the actors' perspective has been chosen to conceptualize the research objective. This is the reason why this study has been undertaken based on the theoretical grounds of actor-centred theory to differentiation – an approach which considers structural outcomes as the result of specific actor constellations, which are in turn affected by a given institutional setting and cognitive normative orientations at the system level.

The theoretical approach that has been applied to this investigation provided an analytical framework for structuring and understanding the field of research. As I have explained in detail, the system-theoretical perspective is crucial for understanding the structure, configuration and nature of higher education systems. The specificity of the coexistence of two reference systems in higher education could only be dealt with satisfactorily by applying system-theoretical concepts. Therefore, for this study, I deem the actor-centred approach to differentiation to be appropriate as it draws heavily on system theory. Furthermore, in particular the distinction between cognitive orientations at the system level, institutional patterns and actor constellations proved to be a helpful framework for the analysis of structure-actor dynamics. However, I have to admit that this approach does not yield concrete predictions that can be stated and examined. Consequently, further theoretical approaches from traditional theories of

rational choice were drawn on that make verifiable statements and predictions about actors' interests and actions.

As to the way the analysis has been carried out, it has to be acknowledged in retrospect that the analytical focus rather lay on the cognitive orientations, i.e. in the macro-level general perspectives: Where do actors orient within teacher education? What is their perceived role and function of research in teacher education? Also, the question as to the positioning was dealt with more in the light of cognitive orientations. As a result, the concrete actor constellations and their impact on the structural outcome have not been elaborated to the same degree in the analysis.

Now, what does result from this investigation of structural dynamics in higher education in terms of concrete statements and practical advice? Indeed – and I have to be clear on this – my thesis does not provide an evaluation of the reform policy as such, nor does it make recommendations for the political side. Rather, this dissertation has tried to describe in depth structural processes within higher education and to provide a systematic and scientifically based account of the structural situation and the interplay of actor groups within a given normative and institutionally defined setting. Consequently, the empirical illustration can only cover a small section of the whole picture searched for. Also, we must bear in mind that institutional choices can also have uncertain outcomes.

## **20.2 A mixed methods approach**

The analysis has been conducted using a mixed method approach involving both qualitative and quantitative empirical methods. Thereby, comparative case studies at the level of four individual UTEs have been complemented by micro-data regression analysis based on a students' survey. Thus, the different systemic dimensions were examined, making it possible to identify relevant factors and structural patterns.

I argue that for this type of research topic in higher education policy which also involves positional aspects, it is crucial to rely as well on quantitative analysis of micro-level data of the system's clients, for vertical differentiation resulting in hierarchies of status affects the position of HEIs and consequently translates into specific effects of self-selection. These processes can only be analysed by means of micro data collected at a point in time before the educational choices made as to type of studies. Thus, the effect of social background on the choice of the type of HEI can be used as an indicator of positional characteristics and perceived status differences between institutional types.

Detailed interviews concerning a number of UTEs on the other hand served to reveal internal and external perceptions regarding organization, position and role as UTEs. Another option would have been to conduct a survey among a representative sample of teachers at the UTEs in Switzerland collecting quantitative information on organizational aspects, perceptions of position and evaluation of the relationship with other HEIs. A quantitative approach to the analysis of the UTEs would of course have had the advantage of yielding representative and generalizable results, but apart from the fact that such a survey would have been beyond the possibilities and resources of this PhD project, a quantitative approach would not have enabled the identification of the complex argumentations as to the institutional strategy or the ambiguities and contradictions within the organizations. These types of mechanisms and processes are best investigated by means of qualitative methods. However, one could object that in applying both methodological approaches, neither can be pursued in depth and the analytical modelling can cause problems since theoretical assumptions are different.

### **20.3 Summary of the empirical findings reviewing the hypotheses**

Before drawing final conclusions, I shall now review the advanced hypotheses in light of the empirical findings elaborated above. The three hypotheses related first to the cognitive orientation, second to institutional settings and actors constellations, and third to compositional effects due to self-selection.

The *first hypothesis* stated that the UTEs will seek to strengthen the scientific orientation and their research function the more they identify themselves as tertiary institutions. The analysis has confirmed this hypothesis. The UTEs have realized that research is the necessary criterion for recognition as an HEI. Thus, among all the UTEs surveyed, enhanced research orientation and promotion of research activities were observed. The demand by several UTEs to award doctoral degrees is an expression of this general trend. However, there are several obstacles restraining academic drift by the UTEs. These are on the one hand the importance of the occupation-specific orientation and the long tradition of the teaching function in teacher education, as well as on the other hand, the widely held sceptical attitudes towards research. The education orientation is particularly important for the non-academic actor groups, for teacher students and for the general public. Considering the four case studies conducted, it cannot be stated that the UTEs on the whole have developed an explicit strategy of academic drift aiming to converge with the universities. The picture is quite heterogeneous, with broad variation between a clear strategy of academization and rather moderate policies for developing research capacities and performance.

The *second hypothesis* stated that lay group's access to higher education policy would increase differentiation and check tendencies towards academization and convergence (cf. Rhodes 1990). This hypothesis has also been confirmed by the analysis. Depending on the governance structures, access by political actors, interest groups and professional associations varies and affects the strategic development of the UTEs. Non-academic actor groups, in particular from the political side, tend to be rather reluctant as regards the academization of teacher education. As a consequence, these groups oppose any attempt to align the UTEs with the universities. The more limited the autonomy of a UTEs, the more these actor groups have access to higher education policy regarding teacher education and will control institutional development (see for instance political statements by the cantonal councils in the case of the PHTG or the PHZH). Thus, the PH FHNW as an intercantonal institution has gained a maximum amount of institutional autonomy from the political authorities, which shields it from political intrusion.

And finally, the *third hypothesis*, stating that greater differentiation in higher education systems would increase differences between students and personnel of different types of higher education institutions due to self-selection processes, could be confirmed based on the micro analysis of students' educational choices into higher education. The analyses based on descriptive data as well as on the case studies also revealed differences among the teaching and research personnel between the university and the college sector. Thus, as has been hypothesized, students who are going to study at a UTE as well as scholars who are going to teach and research at a UTE differ in a number of relevant characteristics from those in traditional universities.

## 20.4 Appraisal of the results

In the following, I shall provide an appraisal of the empirical findings and present final conclusions that I draw from my analysis.

### ***Balancing between divergent interests and views – the UTEs as an institutional compromise***

In light of the findings explained, the reform of teacher education and its integration into the higher education system in the form of universities of teacher education (UTEs) can be characterized as a compromise within the specific actor constellation in the Swiss higher education system in several aspects. Teacher education, as an important domain of the cantonal education systems, could not be integrated into the federally governed sector of the universities of

applied sciences (UASs). Nor was the integration into the cantonal universities an option. Seeking to satisfy the growing claims of professionalization and tertiarization of teacher education but also for the sake of those voices fearing the academization of teacher education, a new institutional type was introduced, representing HEIs with the status of UASs but subject to separate and exclusively cantonal regulation. The fact that there was no federal instance regulating teacher education was a strong argument for the cantons to invest in the reform and to accept the rather modest intercantonal harmonization on the basis of the EDK agreement on mutual recognition of diplomas. At the time of its conceptualization, the idea of the UTEs obviously represented the lowest common denominator, an institutional option acceptable to a majority of the cantons for tertiarizing teacher education. A key aspect of this arrangement was the fact that the EDK recommendations concerning teacher training (EDK 1995) did not stipulate a particular institutional type, leaving the cantons free to organize teacher education according to their preferences and local tradition.

As a result, the UTEs represent a sort of a bottom-up outcome, leading to a relatively broad diversity of institutional solutions. Yet this bottom-up process took insufficient account of the higher education sector as a system of its own and the changing relationship with the other institutional types. Consequently, several inconsistencies remained that only gradually emerged from the evolving and dynamic structure of the higher education system. Furthermore, even among the UTEs, we have observed a heterogeneous situation reflecting different traditions and institutional settings. With respect to the four cases examined, we can conclude that the two cantons of Vaud and Zurich tried for a long time to maintain the status quo. In the first concepts, they tried to adapt the existing system of teacher education in a minimal way so as to meet the new requirements. This explains the long-standing insistence on keeping the different programmes for different categories of teacher, and the resistance of representatives from lower secondary level teachers to integrating their training with the primary level. Zurich finally came up with the comprehensive UTE integration of all categories of teacher for compulsory school, while maintaining the separation with upper secondary level teachers. In the canton of Vaud, the original approach failed to win approval by the EDK. A second attempt was needed to overcome the traditional approach to teacher education and to align the new UTE with the university model in order to achieve true tertiarization. The canton of Thurgau succeeded to a certain extent in keeping its traditional approach to teacher training at the secondary level by integrating the former teacher training school into the high school and by opening up a special transition into the second year of the UTE for graduates from this particular teacher training profile at high school. This represents a very special and unique compromise stretching to the limits of the intercantonal recommendations on teacher education. Lastly, the PH FHNW represents a case where an intercantonal institution was created

based on individual cantonal solutions but with the ambition of creating a common, integrated comprehensive university of teacher education. In this inter-regional institutional setting the influence by lay groups was rather limited, making it easier to defend strong cantonal interests as well as demands by lobby groups insisting on local traditions.

### ***Inconsistencies and ambiguities as to the system structure***

Whereas the reform process and the different institutional background of the UTEs in the cantons have been investigated by several researchers, this study has analysed the heterogeneity as to institutional setting, organizational structure and development among the UTEs with regard to the entire higher education system. Accordingly, the analysis revealed major inconsistencies and ambiguities inherent to the conceptualization of the UTEs as HEIs of the Swiss higher education system. This heterogeneous and inconsistent institutional situation, as my thesis argues, also explains the observed confusion as to the issue of the institutional types. Whereas some actors still refer to the binary divide of the system and identify two broad sectors, the university sector on the one hand and the non-university or college sector on the other, others rather refer to three types where the UTEs represent a third category alongside the universities and the UASs.

Thus, the UTEs were initially conceptualized as a particular type of UAS. Since then, the UTEs have benefited from their institutional autonomy and developed considerably so that today, the majority of its representatives sees the UTEs as a third type of HEI, clearly different from the UASs and tending to resemble the traditional universities. In the UTEs' line of reasoning, teacher education is not characterized by an occupational orientation, as is the case for the UASs. External actors, policy-makers or representatives of other institutional types do not necessarily share this view, perceiving a difference in terms of research intensity and scientific orientation between universities and UTEs. However, there is growing willingness among governing bodies to make concessions to the UTEs and to give them what they are asking for, especially the right to award doctoral degrees in certain subjects.

In order to deal with these institutional and structural inconsistencies, I have suggested combining the two ways of differentiation in higher education. In other words, the exclusive reference to the binary divide in terms of the difference between liberal-general vs. vocational occupational education no longer suffices, for the other dimension describing the relationship between research and teaching or the research orientation and intensity of a HEI also impacts positional considerations. Thus, by crossing the two axes, the dimension of vocational specialization with the dimension of the research orientation, some of the divergent positions can be



reconciled. As a result, I identify within this coordinate system different positions representing different categories of HEIs: first, a research-intensive, liberal general sector occupied by the traditional universities; second, a research-intensive and at the same time occupationally oriented sector where we identify the Federal Institutes of Technology; third, a sector characterized by a high occupational orientation combined with a stronger teaching focus occupied by the UASs. And finally, I would position the UTEs in the left part of the diagram located halfway between the liberal-general and the vocational pole, since they share with the UASs the prominent teaching focus but differ from them in terms of vocational specialization, .

However, the empirical analysis revealed substantial heterogeneity among the different UTEs as to the organizational structure of teaching and research. This finding refers of course to the prominent role of the different ideas and expectations about the right way to train and educate teachers as well as the normative beliefs about good teaching. These normative orientations impact heavily on the institutional and organizational configurations in teacher education. Since there is no consensus as to the normative orientations among the different actors, there cannot be any consensus on the identity, role and position of UTEs. As a consequence, the different UTEs as well as the different actors involved are pulling in different directions.

### *Differentiation and stratification*

If we consider both of these dimensions of differentiation, we can conclude that with the creation of the UTEs, the Swiss higher education system experienced further differentiation. With the creation of the UASs in the mid-1990s, the binary divide was structured equally along the two dimensions. The UASs represented the HEIs of the non-university sector characterized by a vocational orientation as well as lower research intensity and the dominance of teaching. Because these HEIs of a new type have always been described as HEIs with a vocational orientation, with lower research intensity and with a focus on applied rather than basic research, the UTEs do not fully identify with this non-university sector, but have great difficulty in explaining what sets them apart from the UASs.

Nevertheless, the establishment of specific institutions for teacher education that are part of the non-university sector represents a further differentiation of this second tier sector. With the UTEs, there are now HEIs similar to the UASs as to the role of teaching and research but with a rather liberal general focus on the disciplines taught. Although the students at UTEs are trained for a particular profession, they undergo a rather general education drawing on the liberal arts, and other general disciplines based much more on the subjects of general teaching at high school.

The fact that the non-university character of the UTEs does not exactly match the vocational orientation of the UASs is a source of conflict and the reason for the widespread ambiguity among representatives of UTEs as well as external actors as to their identity within the higher education sector. The dilemma is also due to the traditional differentiation between vocational and general education, which in many European countries serves as the sole criterion of institutional differentiation in higher education. The popularity of this distinction entails, according to Bonaccorsi and Daraio (2007: 6), a striking lack in approaches for differentiating HEIs in terms of research orientation, intensity and quality. As a consequence, stratification within the system takes place on the basis of rather informal criteria of differentiation such as perceived prestige or supposed quality of research or general prestige. The problem with the stratification is that this happens in any system arrangement. If the system is not vertically and hierarchically organized by means of formal regulations, stratification will occur on an informal basis.

In his cross-national organizational analysis of HEIs, Trow (1984) identified two principles of stratification in higher education. In the market model, which is found in the US system, HEIs pursue their competitive advantage in academic markets competing for prestige, good teaching personnel, research funds, etc. In the state model, the HEIs attain their position within a hierarchy according to the functions, rights, privileges and resources allocated by the government (Trow 1984: 162). The latter is found in most European systems and in the Swiss system as well. The binary differentiation into a traditional university and a non-university sector is a political decision as well as the institutional setting and regulative framework. Although legislators did not weary of declaring that the non-university sector was equal to the university sector, the two sectors became caught up in informal stratification. As legislators and governments prescribed by law the mission and role, the vocational orientation, the type of research and the degrees that can be awarded by the UASs or the UTEs, they established a different sector, separate from the university sector and without the same rights and privileges as the universities. In addition, the identified process of self-selection based on socio-economic status is evidence enough for the existence of informal hierarchies between the institutional types that are perceived by students and their families.

Students' self-selection is based on institutional and organizational criteria of the different HEIs. The most striking features are the UTEs' different scientific orientation and organization of research as well as their lower research intensity. These differences can also be attributed to the fundamentally different organizational modes which characterize the typical HEIs in university and non-university sectors. Clark (1984b) characterizes the traditional universities as HEIs that are organized on the basis of disciplines, whereas undergraduate colleges and

professional schools are organized as inter- and multidisciplinary units with strong organizational cohesion. Professors and academics in universities traditionally identify with their discipline, and do not care about other disciplines, whereas academics at colleges are much more multidisciplinary-oriented and identify with their college membership (Clark 1984b: 112ff.). In contrast to the US-universities, European universities give even greater preference to the disciplinary approach. When applied to the UTEs, the organizational difference becomes obvious. As a rule, the UTEs are not yet organized according to the disciplinary principle, although one of the four UTEs exhibited attempts towards such an organization. The UTEs prefer the multidisciplinary approach, where academics and teachers identify with their membership in the institution as a whole. Consequently, researchers at UTEs do not have the same disciplinary identity and support as their colleagues at universities.

This is another reason why academics from the universities are rather critical of the UTEs' idea of introducing doctoral degrees, for doctoral instruction has always figured per se among the responsibilities of the academic disciplines. In this understanding, the right to award doctoral degrees cannot in fact be granted from outside, and the fact that most government officials and policy-makers could not say who or which authority would be competent for this decision seems to confirm this position. Doctoral degrees are not state titles approved by the government; they are academic degrees awarded by the responsible disciplines, traditionally organized within faculties. If the doctoral degrees granted by UTEs were to be acknowledged by the academic community, this would have to be based on a disciplinary rationale. Only the gradual development and establishment of the required scientific competencies and performance will enable the UTEs to acquire an academic status in specific disciplines on a par with the universities so that their involvement in doctoral instruction develops naturally. For the UTEs – as one of their rectors stated – will never carry out the third cycle programmes by themselves; not least because of their small number. They will always need to have recourse to external scholars from universities, nationally and internationally, within the respective discipline.

### ***Higher education institutions on a short leash***

To sum up, the integration of teacher education into the higher education system has been successful insofar as the new institutions of teacher education, the UTEs, have become institutions of the tertiary system with a status similar to the UASs, awarding academic degrees at the bachelor's and master's level. But what is lacking is an overall perspective of the structural dimension of the system as a whole, a conceptual approach clarifying the relations between the different institutional types. Higher education, and in particular the field of teacher education,

has proved to be exposed to various competing interests. There are too many individual lobbies and interests at stake which dominate public policy and the development of individual HEIs. There are the competing interests of the different levels of the federal state, and in particular the strong influence of the cantons as well as their specific local interests that inhibit the creation of an integrated comprehensive system at the national level. As a result, the UTEs are checked in their development as HEIs; in particular, they are not truly free to pursue their organizational strategy in the way they wish and consider adequate.

Furthermore, the UTEs have become caught up between two divergent cognitive and normative orientations, the education and the scientific system. This system-specific coexistence bears inherent conflict, and the UTEs are forced to constantly balance between two orientations. If the UTEs are not able to reconcile them within their sector as well as within the individual organizations, the field risks further differentiation along the divide between research and teaching, with a number of UTEs further strengthening their research profile and others being prone to the traditional approach of teacher training.

Besides the divergence between the scientific alignment and the practical orientation of the education system, the UTEs see themselves confronted with specific expectations by the political authorities. The institutional specificity of teacher education is that it has always been closely monitored by legislators and government offices. Moreover, legislators and government do not wish to see teacher education become overly academic and scientific. Consequently, the UTEs are still kept on a short leash and thus do not have access to the two elements Trow (1984) deemed essential for the universities: first, academics' monopoly on expertise; and second, the freedom to organize research and teaching without governmental control over curricula (Trow 1984: 150). If legislators and governing bodies still intervene in teacher education as to content, organization or research orientation, the development of a truly academic posture will be inhibited. Teacher education can no longer be organized and structured to reflect the local school system if it is to comply with standards of tertiary level institutions. Nor can the UTEs be the service providers at the government's free disposal.

The fact that the UTEs, although they essentially involve the liberal arts, directly qualify their students for the teaching occupation exposes them to a multitude of stakeholders. Hence, actor constellations in teacher education are complex and characterized by various competing interests. Generally, it has been acknowledged that the relative importance of teacher education for the public would justify the state's interest in monitoring and governing the UTEs. This also explains the significant non-academic influence and lay group access in teacher education policy. Moreover, the universities representing the first tier sector will become keen competitors as soon as the UTEs start to spread to the universities' sphere of influence. The universi-

ties do not care about the UTEs' "nominal upgrading" (Trow 1984: 138) as can be seen for instance in the use of terms such as 'university' or 'professor'. But they will certainly object to significant increases of research capacity in 'their' classical disciplines or a unilateral introduction of third cycle programmes by UTEs.

The inconsistencies and unintended effects described are to some extent the outcome of the integration and upgrading of a specific and decentralized governed sector of teacher training into the national higher education system, without the provision of adequate system governance at the national level responsible for all the HEIs. The fact that the UTEs are not regulated or at least coordinated by the same instances as the other HEIs contributes to the ambiguity identified in the analysis. The strong dynamic among the UTEs that has been observed is to be attributed to the strict decentralized conception of this sector, resulting in competition and further differentiation within the sector rather than convergence.

## **20.5 Outlook**

In the end, it is up to lawmakers and the governing bodies to decide whether the current situation corresponds to their understanding of the original idea and conception of differentiation in higher education and to take appropriate measures. Based on this study, I would see three possible options of UTEs' further development in the higher education system. Option 1: arguing in favour of the importance of scientific development for any HEI, the UTEs are encouraged to enhance their scientific orientation and to improve their research capacities and output. Consequently, they are endowed with the institutional rights and financial capacities required to pursue an effective strategy of academic development and to emulate the universities. The academic drift of the UTEs will later evoke the question of the integration of the UTEs within the universities and the creation of schools of education following the US model or the merger of university institutes of pedagogy with the UTEs to independent specialized universities for teaching and learning. In both cases, teacher education would become less close to the government office. However, this approach to teacher education would be expensive, would require considerable change within the cognitive, normative orientations within the system of teacher education, and could probably be realized only in the long run.

Option 2: if legislators and government preferred to keep teacher education within the non-university sector, clearly separate from the universities, it would be necessary to better conceptualize the structural order of the higher education system and to define precisely the mission and role as well as the rights and privileges of the different institutional types. Such a policy would require a strong type of differentiation stipulating for example the programmes

and degrees which the different types of HEIs were entitled to offer. The UTEs would probably have to be repositioned with a more vocational orientation. The integration of teacher education into the UASs could then be a realistic and appropriate option, turning the UASs into large multidisciplinary, comprehensive colleges comprising a vast array of professionally qualifying study programmes. This option would need strong state action and could probably only be realized if teacher education were placed under federal governance in order to overcome cantonal competition. Such a system differentiation would place greater emphasis on the dimension of research intensity, positioning the UTEs together with the UASs in the non-university sector with a stronger teaching focus which would then also better match the vocational orientation.

Option 3, finally would represent the status quo with the existing combination of cantonal, federal and intercantonal governance in higher education. In light of current trends, any further institutional differentiation emphasizing the differences between the sectors is rather unlikely. Cantonal and federal legislators will try to accommodate different interests and rather relax regulations enabling the HEIs to pursue their own goals and institutional strategies. The overall trend would then be expected to be academic drift of the UASs as well as the UTEs. In such a situation, each UTE would need to find its individual profile as an HEI and attract a sufficient number of students. Academically ambitious UTEs will aspire to align with the universities. Others will rather pursue a liberal general approach without a strong research orientation. Some will primarily enhance their occupation-specific orientation, and a few might be able to develop strong research capacities while keeping a clear vocational orientation – professional insofar as that they gear their research activities to the empirical field of the teaching practice, bound to serve the needs of the profession. However, due to unequal conditions in terms of financial endowment, research capacities, institutional setting, local context or other aspects, diversity would increase substantially between the individual UTEs although sector boundaries would be blurred. It goes without saying which option I deem most likely.

## **20.6 Contribution to the international discussion in higher education policy research**

The question of how higher education systems are organized has always been a central issue in researching higher education policy. Researchers have described the structure and institutional configurations of higher education systems and proposed classifications and explanations for structural dynamics. Systemic and institutional diversity have been described by classifying HEIs or identifying different modes of structural order such as functional vs. hierarchical.

Finally, structural change has been described with reference to the concepts of differentiation and convergence. When explaining structural dynamics, many authors refer to actor-centred approaches, emphasizing the interplay between actors and institutional and systemic characters. Governance structure and the openness of higher education systems to a non-academic environment have been proven to impact heavily on structural outcomes. Considering the literature reviewed, I have shown that the conceptualization, structure and development of non-university sectors are still attractive research subjects and the question of differentiation and convergence is not really solved.

In the following final paragraph, I shall now discuss the contribution of my thesis to the international discourse on differentiation in higher education, and ask from an external perspective what lessons can be drawn from the analysis of the Swiss case. The empirical findings specific for Switzerland are therefore discussed in the international context of differentiation and convergence in higher education systems. The question is how Switzerland compares with the international environment?

With regard to international development, it can be concluded that many higher education systems have been differentiated. While expanding their tertiary sectors, countries have introduced non-university institutions. In the process, non-university sectors generally developed from a heterogeneous and fragmented field towards a more unified and integrated sector. However, despite the formal differentiation, non-university sectors often developed tendencies of convergence with the university sector. Thus, the implementation of the Bologna declaration brought further unification: studies and programmes as well as the degrees granted were aligned and standardized with those of universities. Academic drift as an inherent dynamic of HEIs can also be observed with non-university institutions trying to imitate the universities. This tendency increased convergence of the two sectors. In general, we observe that binary systems, albeit formally diversified, tend “to blur the distinction between universities and polytechnics” and “trends are clearly moving toward an aesthetic convergence, however keeping the diversity” (Lourdes Machado et al. 2008: 256).

Although it is widely acknowledged that non-university institutions are not the same as universities, involved actors as well as scholars find it difficult to define the specific role and function of the non-university sector. There is a certain ambiguity that characterizes the discourse and debates about the desirability of a diversified higher education system and the degree of differentiation in terms of institutional profile and mission of non-university institutions (cf. Teichler 2007, 2008b; Lourdes Machado et al. 2008; Kyvik 2009). The debates about the differences between the two sectors were closed with the compromise formula defining the two types of HEIs as “different but equal”. This formula that was never really clarified led to

the different actors either stressing equality and claiming similar rights for the UASs or emphasizing on the contrary diversity and calling for a specific treatment in terms of quality standards or quality requirements regarding personnel and students.

As regards teacher education, most European countries have upgraded general teacher training to the tertiary level and integrated into the higher education system in the last decades of the 20th century. Teacher preparation for the primary and the secondary level became comparable and teachers earned academic degrees (cf. Moon 2003). However, institutional structures vary from country to country. Whereas a majority of the European countries have established teacher education at the university, some countries have opted for specific institutions for teacher education. Moreover, the separation of the education of primary and secondary level teachers goes hand in hand with this institutional choice: elementary teacher training generally takes place at non-university institutions, secondary level teachers at universities. A further characteristic common to most systems of teacher education in Europe is the regulatory control that governments keep over the education and training of teachers. Generally, government interventions and policy reforms in teacher education follow the patterns of national traditions in policy-making, describing liberal, minimal interventionist; consensus-building or interventionist approaches (cf. Moon 2003).

Switzerland has set up a binary structure in higher education comprising non-university institutions with the mission of vocational-oriented and occupation-specific education and training at the Bachelor and Master's level. The fragmented situation of the post-secondary sector with small mono-purpose colleges was turned into a coherent national system composed by large comprehensive multi-purpose institutions. These newly established universities of applied sciences (UASs) were conceptualized as non-university institutions, representing a second tier of the tertiary system, alongside the traditional universities. The binary structure of the system was enhanced by separate regulations, different study profiles, programmes and degrees, as well as different criteria as to the recruitment of personnel and access to studies.

In terms of concepts and approaches discussed above, this systemic change can be characterized in principle as a functional type of differentiation, leading to a systemic diversity with different higher education sectors characterized by specific missions and roles. The UASs have subsequently developed their speciality and specific profile different from the universities. The political stakeholders also established – despite the formula “equal but different” – a hierarchical differentiation in terms of academic status between the UASs and the universities, since the UASs were given the right to award doctoral degrees. But with the famous compromise formula, the political actors distracted attention from the fact that the non-university sector was positioned at an academically inferior level in relation to the universities. Due to the normative



principle of equality between the two sectors, the hierarchical aspect of this differentiation was kept rather informal.

However, there has also been identified academic drift among the UASs and the implementation of the Bologna degree structure represents a certain convergence with the university sector. If the UASs are given the right to award doctoral degrees, as they are now calling for, a key aspect of the functional system differentiation will change. With the establishment of the UASs, the stakeholders introduced a division of labour in research between the UASs and the universities: doctoral education was reserved for the universities. This differentiation is now challenged by representatives of the UASs. To put it the other way around, whereas the functional differentiation established with the binary structure that distinguishes between a liberal-general and a vocational orientation is well accepted by the actors, the differentiation in terms of research profile is increasingly challenged.

Nevertheless, the binary structure of the higher education system in Switzerland can be regarded as rather stable. The situation is not comparable to other countries where the non-university institutions gradually assimilated the universities and where the binary structure was finally abolished. Also with the new Federal Act on higher education, the binary structure is kept and the sectors are separated and endowed with specific and different missions.

Yet, inconsistencies within the system increased with the creation of specific institutions for teacher education: the UTEs. Systemically, this represents a further functional differentiation of the higher education system, whereby separate HEIs for the training of a single occupational group – the teachers – were created. From an external perspective, however, it is not evident that teacher education has not been integrated into the existing universities or into the new universities of applied sciences, as has been the case with applied psychology or social work. The question is why mono-purpose institutions were created solely for teacher preparation. The reason for this rather particular solution lies first in the institutional structure of the federal state with an exclusive cantonal competence in teacher education, and second in the dominant normative orientations that made it simply impossible to transfer teacher education directly to the universities. Nor was integration into the UASs an option, because of the federal governance of the UASs and because the vocationally oriented UASs were not considered as being the appropriate institutions for covering teacher education. Since teacher education could not be brought under federal competence, it could not fully be integrated together with other fields of social sciences within the existing UASs. As a consequence, teacher education was tertiarized independently by the cantons, parallel to the development of the UASs at the federal level. The newly conceptualized institutions of teacher education were given a separate denomination – universities of teacher education (UTEs) – and although they were formally assigned

to the non-university sector, they were treated as a separate institutional type of their own. This explains why today, even among cantonal officials, a certain ambiguity prevails as to the question of the institutional category of the UTEs. Consequently, the UTEs in their role as new institutions of higher education, that had to find their profile and niche within the tertiary system, began to develop their own strategy which does not necessarily dovetail with the stakeholders' goal.

The Swiss example shows that the specific institutional setting with two levels of the federal state organization, with several political authorities and different administrations involved, with close control by cantonal government and councils as well as the consensus-oriented politics of the involved actors accommodated differentiation in the higher education system and the development of a non-university sector. In contrast to the substantial autonomy of the academic universities, the governance of the non-university sector's HEIs is much more open to the non-academic environment, which translates into considerable lay group access in policy and deflects attempts at academization. Lay group influence is increased by the direct democratic institutions allowing political parties or interest groups to fight official policy by popular referenda. Consequently, the HEIs of the non-university sector are constrained in their organizational development and research profile. Pronounced academic drift by either UASs or UTEs will inevitably provoke resistance among stakeholders and the wider public and lead to policy interventions. This specific institutional setting and the prevailing actor constellations explain why traditional and popular beliefs are effective and persistent in Swiss politics of higher education.

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- EDK: Protokolle der Plenarversammlungen der EDK von 1990 bis 2010.
- FHNW: Jahresbericht der Fachhochschule Nordwestschweiz, 2010-2011.
- KFH: Der dritte Bologna-Zyklus an Schweizer Fachhochschulen. Grundsatzposition KFH. 2. November 2011.

- PH FHNW: Forschungsbericht Pädagogische Hochschule 2007-2011.
- PHTG: Geschäftsberichte 2009-2010, Akademische Berichte 2009-2010.
- PHTG: Leitbild der Pädagogischen Hochschule Thurgau. Auftrag, Selbstverständnis, Perspektiven. September 2008.
- PHZH: Jahresberichte der Pädagogischen Hochschule Zürich, 2001-2010.
- PHZH: Weisung zu den Professuren an der Pädagogischen Hochschule Zürich vom 26. September 2011.
- TG : Gesetz über die tertiäre Bildung (Tertiärbildungsgesetz) vom 24. Oktober 2001.
- TG: Botschaft des Regierungsrats des Kantons Thurgau zum Gesetz über die tertiäre Bildung. 17. April 2001.
- TG: Protokolle des Grossen Rats, 2001-2004, Kanton Thurgau.
- VD : Haute école pédagogique du canton de Vaud (2012). Plan d'intentions 2012-2017.
- VD : Loi sur la Haute école pédagogique (LHEP) du 12 décembre 2007. 414.11.
- VD : Bulletins du Grand Conseil du Canton de Vaud, 2004-2005.
- ZFH: Reglement über den Titel der Professorin oder des Professors an der Zürcher Fachhochschule.
- ZFH: Richtlinie zum Reglement über den Titel der Professorin oder des Professors an der Zürcher Fachhochschule vom 6. Juli 2010.
- ZH : Gesetz über die Universität Zürich vom 15. März 1998. 415.11
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## APPENDIX

### *EXPERT INTERVIEWS*

Between February 2011 and March 2012, several stakeholders and experts of the Swiss higher education system were interviewed. All the 30 interviews were conducted by the author. The offices, institutions or organizations that are represented by the interviewed persons are listed below:

#### *National-level actors*

- Rectors' Conference of the Swiss Universities (CRUS), Bern, 23.11.2011
- Swiss University Conference (CUS), Bern, 23.11.2011
- Swiss Conference of Rectors of Universities of Teacher Education (COHEP), Bern, 1.12.2011; 18.1.2012 [2 interviews]
- Swiss Conference of Cantonal Ministers of Education (EDK), Bern, 7.12.2011
- Rectors' Conference of the Swiss Universities of Applied Sciences (KFH), Bern, 9.1.2012

#### *Canton of Vaud*

- University of teacher education : Haute école pédagogique du canton de Vaud (HEP VD), Lausanne, 7.6.2011; 22.11.2011 [4 interviews]
- Ministry of education : Direction générale de l'enseignement supérieur du canton de Vaud (DGES), Lausanne, 7.6.2011
- Teacher union : Société pédagogique vaudoise (SPV), Lausanne, 14.3.2012

#### *North-Western Switzerland; Canton of Aargau*

- University of teacher education: Pädagogische Hochschule der Fachhochschule Nordwestschweiz (PH FHNW), Brugg, 17.2.2011; Aarau, 8.3.2011; Liestal, 28.3.2011; Basel, 22.3.2011 [4 interviews]
- University of applied sciences: Fachhochschule Nordwestschweiz (FHNW), Brugg, 18.3.2011
- Ministry of education Canton of Aargau: Departement Bildung, Kultur und Sport (BKS), Aarau, 8.3.2011
- Teacher Union: Aargauischer Lehrerinnen- und Lehrer-Verband (ALV), Aarau, 27.3.2012

*Canton of Thurgau*

- University of teacher education: Pädagogische Hochschule Thurgau (PHTG), Kreuzlingen, 22.9.2011 [3 interviews]
- Ministry of education: Amt für Mittel- und Hochschulen; Departement für Erziehung und Kultur, Frauenfeld, 26.9.2011

*Canton of Zurich*

- University of teacher education: Pädagogische Hochschule Zürich (PHZH), Zurich, 9.12.2011; 1.12.2011; 16.12.2011; 17.12.2011 [4 interviews]
- University of Zurich: Universität Zürich, Institut für Erziehungswissenschaft (IfE), Zurich, 30.3.2011
- Ministry of Education: Hochschulamt, Bildungsdirektion (HSA), Zurich, 24.1.2012
- Teacher Union: Zürcher Lehrerinnen- und Lehrerverband (ZLV), Zurich, 26.3.2012

## ***INTERVIEW GUIDELINES***

### *a) Members of the management of the UTEs*

1. Wie definiert die PH ihre Rolle im schweizerischen HS-System?
2. Wo positionieren sich die pädagogischen Hochschulen im schweizerischen Hochschulsystem? Ist eine pädagogische Hochschule eine Fachhochschule oder eine Universität?
3. Wie charakterisieren Sie die Struktur des schweizerischen Hochschulsystems? Binär, also mit zwei „Grundtypen“ (universitär und nicht-universitär), konkret den UH (Univ. und ETH) und den FH (wozu auch die PH zählen), oder würden Sie von drei eigenständigen Hochschultypen (UH, FH und PH) sprechen?
4. Wie gestaltet sich die Zusammenarbeit mit den Univ. und den Fachhochschulen, bezogen auf Ausbildung, Forschung, Hochschulpolitik?
5. Bezogen auf die Forschung: Gibt es eine Arbeitsteilung zwischen UH und PH?
6. Laut Thesen von 1993 sollten die PH (zumindest im berufswissenschaftlichen Bereich) über das Promotionsrecht verfügen. Wie sehen Sie das heute?
7. Zukünftige Entwicklung im HS-System: Welche Strategie sollten die PH für die Zukunft verfolgen?
8. Der Leistungsbereich F+E ist ein wesentliches Merkmal der neugeschaffenen PH: Hat die Forschung an den PH die ursprünglich vorgesehene Rolle und Funktion für die Lehrerbildung erreicht?
9. Inwiefern ermöglichen die konkreten strukturellen Bedingungen der PHTG die Verwirklichung Professionalisierung der Lehrerbildung? Förderliche und hinderliche Faktoren?
10. Forschungsförderung: Braucht es spezifische Forschungsförderungsinstrumente für die pädagogischen Hochschulen (analog etwa zu DORE für die FH)?
11. Welchen Forschungshintergrund benötigen Dozierende der Lehrerbildung? Gelingt es, diese zu rekrutieren?
12. Wie wurde die Überführung der Dozierenden von den früheren Instituten der Lehrerbildung an die PH gehandhabt? Übergangsregelungen od. konsequente Neueinstellungen? Was sind die Bedingungen bei neuen Rekrutierungen?
13. Die Studierenden an den pädagogischen Hochschulen weisen eine grössere Heterogenität punkto Vorbildung auf als Studierende an Universitäten. Auch unterscheiden sie sich von anderen Studierenden. Erachten Sie das als problematisch? Müssten die Zulassungsbedingungen verschärft werden?

### *b) Teacher union; teacher's professional associations*

1. Selon votre association, quel est le rôle des HEP dans le système suisse de l'enseignement supérieur?
2. Où est-ce que vous positionnez les HEP dans système d'enseignement supérieur?
3. Une HEP, est-elle une HES ou plutôt une université ?
4. Comment jugez-vous l'enseignement actuel des HEP quant à sa pertinence et son efficacité pour le travail concret dans les écoles, quant à sa base scientifique et quant à son renommée?
5. Seriez-vous d'accord si les HEP s'alignent aux universités ?
6. Préférez-vous une intégration de la formation des enseignants à l'université (modèle Genève)?

7. Quel est le rôle de la recherche dans la formation des enseignants?
8. Les HEP, devraient-elles donner des doctorats?
9. Comment jugez-vous l'accès aux HEP? Favorisez-vous un accès plus large (maturité professionnelle, maturité spécialisée, deuxième carrière etc.)?

*c) Senior official, cantonal ministry of education*

1. Comment se positionnent les HEP dans le système des hautes écoles?
2. Une HEP est-elle plus proche d'une HES ou d'une université?
3. Comment caractériseriez-vous la structure du système suisse des hautes écoles? Est-ce un système binaire (deux types: institutions universitaires vs. institutions non universitaires)? Ou faudrait-il plutôt parler de 3 types ?
4. Selon les thèses de 1993, les HEP devraient obtenir le droit de décerner des doctorats.
5. Quel est votre avis à ce point?
6. Comment voyez-vous le futur développement des HEP dans le système ?
7. Comment évoluera le système d'enseignement supérieur en Suisse?
8. Le secteur non universitaire se maintiendra-t-il à côté des universités?
9. Quelle est selon vous la stratégie des HEP?
10. Comment décririez-vous l'autonomie des HEP des autorités politico-administratives par rapport à l'université?
11. On dit que les HEP seraient proches des autorités politico-administratives. Qu'en pensez-vous? (citation Tardif : Les HEP restent principalement des institutions politiques cantonales et non des institutions scientifiques. Elles sont beaucoup trop assujetties aux autorités politiques cantonales. Leur autonomie est faible et leurs actions se basent, non sur des résultats scientifiques, mais sur des demandes relayées par les autorités politiques et des groupes de pression locaux.)
12. Recherche et développement représentent un élément-clé des nouvelles HEP. Comment jugez-vous la qualité de la recherche effectuée dans les HEP
13. On peut constater une forte académisation des HEP, quant au personnel, à sa mission et à ses étudiants (sous forme des exigences accrues). Est-ce que cela a suscité des résistances auprès du public, des étudiants, des autorités politiques ?
14. De quelles connaissances et expériences en recherche devraient disposer les enseignants de HEP?
15. Quelle est la différence entre un prof. HEP et un prof. formateur ?
16. Corps intermédiaire. Mais pourquoi pas de droit de discerner des doctorats ?
17. Les étudiants de HEP se caractérisent par une hétérogénéité plus grande que ceux des universités. P.ex. par rapport à la formation préliminaire des étudiants (à la HEP, il y a sensiblement moins étudiants avec une maturité gymnasiale).
18. Comment devrait être réglé l'accès aux HEP?
19. La maturité professionnelle pourrait-elle suffire pour entrer dans une HEP?



***CODING SYSTEM FOR THE QUALITATIVE ANALYSIS***

01 UTE INSTITUTIONAL IDENTITY	
	Orientation to teaching practice
	Institutional autonomy
	Non-university sector HEI
	UTE as third type of HEI
	Position and status
	Role and function
	Competition among UTEs
	Habitus as HEI
	Normal school tradition
02 STRUCTURE OF HE SYSTEM	
	Governance
	Federalist/decentralist issue
	Differentiation of function
	Differentiation of programme
03 ACTOR CONSTELLATIONS	
	Competition
	Coalition
	Neutral
04 RELATIONSHIP TO UNIVERSITY	
	Cooperation
	Subordination/Domination
	Competition
05 RELATIONSHIP TO POLITICAL AUTHORITY	
	Dependence/Autonomy
	Services
06 RELATIONSHIP TO SCHOOL SYSTEM	
	UTE – School practice
	Implementation
07 RESEARCH FUNCTION	
	Research mission
	Academic habitus
	Dualism research – teaching function
	Applied vs. fundamental research
	Doctoral education/degree
	Research promotion
	Institutional context and conditions of research
	Output
08 STRATEGY OF UTE	
	General difficulties
	School-based orientation
	Academic drift
	Resources
09 PERSONEL	
	Profile/Qualifications
	Teaching vs. research orientation
	Rivalry between research and teaching
10 STUDY ACCESS	
	Selectivity

Extract of a coded interview protocol for illustration (MAXQDA-output):

<p>..Position &amp; Status 08 BEZ ZU</p>	<p>7</p>	<p>haben da also, würde ich jetzt sagen, getrennt. Die PH schliesst eigene Verträge auf Dienstleistungs- und Weiterbildungsangebote. Was die generelle akademische Politik, beispielsweise Personalpolitik oder Strategiebildung anbelangt, dort behandeln wir die PH schon sehr stark als integraler Teil der Gesamthochschule. Aber eben, bezüglich der beiden genannten Themen, sind wir jetzt genau dabei festzustellen, wie weit darf das gehen und wie weit müssen wir dort ganz wesentliche Unterschiede machen. Also die Frage, woher der Nachwuchs der pädagogischen Hochschule kommt, das wird eigentlich jetzt zunehmend zum Thema. Damit könnte sich auch die Sonderstellung der PH in diesem Bereich noch verstärken. 00:07:44-2</p>
<p>..Position &amp; Status ..academic drift</p>	<p>8</p>	<p>I: Das wäre dann auch ein Punkt, auf den ich noch hinkommen möchte. Vielleicht noch kurz zur Positionierung. Sie haben schon erwähnt, dass sie die PH klar dem Typus FH zugehörig rechnen. Sind die PH's oder eben die FH's den UH's in diesem Sinn auch gleichwertige Partner, wie das mal in den Thesen zu den pädagogischen Hochschulen formuliert wurde, oder sehen sie da Unterschiede? 00:08:15-3</p>
<p>05 STRATEGIE PH</p>	<p>9</p>	<p>B: Also im Moment sind sie es vom Status her, würde ich meinen, nicht. Aber, und da sind wir auch sehr überzeugt, dass das der richtige Weg ist, die pädagogische Hochschule Nordwestschweiz unternimmt grosse Anstrengungen, um diesen Status wirklich auch faktisch zu erlangen, weil rechtlich deklariert ist das Ziel ganz eindeutig, dass es eine Gleichwertigkeit sein muss. Und das bedeutet halt, sie muss im personellen Bereich zeigen, dass ihre Dozierenden Qualitäten haben, die vergleichbar sind mit den Dozierenden der Universitäten, insbesondere im Bereich ( ), dass sie mit der Universität wirklich auch Zusammenarbeitsvereinbarungen auf gleichberechtigter Basis abschliessen kann und dass sie Forschungserfolge hat, national und international, die eben auch zeigen, sie hat die Qualität. Also das ist für uns schon unabdingbar. Ich denke hier gibt es ja auch gesamtschweizerisch zwei Kulturen der Entwicklung der pädagogischen Hochschule. Das ist jetzt die eine akademischen Institution, vergleichbar mit einer Universität, ausbauen möchte, versus dem Modell, das in einer pädagogischen Hochschule halt primär immer noch eine Ausbildungsinstitution sieht, die auch andere Anforderungen erfüllen muss, andere Rahmenbedingungen hat als Universitäten. 00:09:57-5</p>
<p>02 STRUKTUR HS-SYSTEM ..Position &amp; Status</p>	<p>10</p>	<p>I: Mit dieser Frage zusammenhängend, wie würden sie die Struktur des schweizerischen Hochschulsystems charakterisieren? Sehen sie das binär, FH's UH's und dann sind die PH's Teil der FH's oder sehen sie das eigentlich mit mehreren Sektoren, wo eben die PH's einen eigenen Sektor darstellen. 00:10:25-3</p>
<p>..Position &amp; Status</p>	<p>11</p>	<p>B: Ja unbedingt. Ich finde eigentlich die heutige Anlage mit den drei Rektoren, Konferenzen der Rektoren, ist richtig, gibt auch die richtige Dynamik und ist ja auch so nahe dem Hochschulförderungsgesetz angelegt. Ich würde da keinesfalls eine Vermischung machen, eben weil die Diskussionen zwischen Kantonen als Systemhüter und Institutionen dann doch enger geführt werden müssen und weil eben doch auch spezifische Zusammenarbeitsformen zwischen pädagogischen Hochschulen und Universitäten hinzu führen, dass hier wirklich eine eigene Handlungsidentität entstehen muss seitens der pädagogischen Hochschulen. 00:11:15-2</p>
<p>03 BEZ ZU UNI</p>	<p>12</p>	<p>I: Auch wenn man sagt, die PH's sind Typ FH? 00:11:20-9</p>
<p>..Position &amp; Status</p>	<p>13</p>	<p>B: Genau. Weil sonst müsste man sagen, es ist ein eigener Typ, das wäre eine andere Form, nur eigentlich besteht kein Platz für ein grundlegend anderes Profil zwischen den beiden Typen. Es gäbe noch das Modell, dass man sagt, es wäre etwas eher universitäres, im Moment haben wir uns klar dagegen entschieden. Mit eben den Schwierigkeiten, denk ich, vor allem mit den Angliederungsformen, aber mit dem Vorteil, dass es eben doch klar positioniert und in der Öffentlichkeit verständlich ist, dass es hier um eine praxisbezogene Ausbildung geht. 00:12:03-9</p>
<p>03 BEZ ZU UNI</p>	<p>14</p>	<p>I: Teilweise wird von einer Art Arbeitsteilung zwischen UH's und FH's gesprochen oder eben PH und Uni. Jetzt, wie sehen sie das, soll es eine solche Arbeitsteilung geben und wo würden sie die richtig finden? 00:12:22-8</p>
<p>03 BEZ ZU UNI</p>	<p>15</p>	<p>B: Arbeitsteilung insofern, das sehen wir auf der Ebene Studiengang bereits, dass es, wo es um fachwissenschaftliche Kompetenzen geht, sich nahelegt, die Zusammenarbeit so zu verstehen, dass die Universität möglichst den fachwissenschaftlichen Teil abdeckt. Wir haben in der Nordwestschweiz zwei verschiedene Modelle der Sekundarstufe 1 Ausbildung. Das eine Modell, das, denke ich, ein sehr gutes ist, basiert eben gerade darauf, dass die pädagogische Hochschule auf dem universitären Fach-Bachelor aufsetzt. 00:13:05-7</p>
<p>03 BEZ ZU UNI</p>	<p>16</p>	<p>I: Also dieses konsekutive Modell. 00:13:09-5</p>
<p>03 BEZ ZU UNI</p>	<p>17</p>	<p>B: Genau. Das halte ich für wirklich zukunftsweisend. Analog dann im Sekundarstufe 2 Bereich. Das finde ich gut. Wo die Arbeitsteilung schwierig wird, ist</p>

**LIST OF ABBREVIATIONS**

<i>Acronym</i>	<i>Denomination in English</i>	<i>Official denomination in Swiss national languages</i>
BFH	UAS of the Canton of Berne	Berner Fachhochschule
CDIP	Swiss Conference of Cantonal Ministers of Education	Schweizerische Konferenz der kantonalen Erziehungsdirektoren EDK Conférence Suisse des directeurs cantonaux d'instruction publique CDIP
CH	Swiss Confederation (Confoederatio Helvetica)	Schweizerische Eidgenossenschaft Confédération suisse
COHEP	Swiss Conference of Rectors of Universities of Teacher Education	Schweizerische Konferenz der Rektorinnen und Rektoren der Pädagogischen Hochschulen COHEP Conférence suisse des recteurs et rectrices des hautes écoles pédagogiques COHEP
CRUS	Rectors' Conference of the Swiss Universities	Rektorenkonferenz der Schweizer Universitäten CRUS Conférence des Recteurs des Universités Suisses CRU
CUS	Swiss University Conference	Schweizerische Universitätskonferenz (SUK) Conférence universitaire suisse (CUS)
CUS	Swiss University Conference	Schweizerische Universitätskonferenz SUK Conférence universitaire suisse CUS
DFA-SUPSI	UTE of the UAS of Southern Switzerland	Dipartimento formazione e apprendimento DFA della Scuola universitaria professionale della Svizzera italiana SUPSI
DIS	Swiss Conference of Directors of HTL	Direktorenkonferenz der Ingenieurschulen DIS Conférence des directeurs des écoles techniques supérieures
EAER	Federal Department of Economic Affairs, Education and Research	Eidg. Dept. für Wirtschaft, Bildung und Forschung WBF Département fédéral de l'économie, de la formation et de la recherche DEFR
EDK	Swiss Conference of Cantonal Ministers of Education	Schweizerische Konferenz der kantonalen Erziehungsdirektoren EDK Conférence Suisse des directeurs cantonaux d'instruction publique CDIP
ETH	Swiss Federal Institute of Technology	Eidgenössisch Technische Hochschule ETH Ecole polytechnique fédérale EPF
FDEA	Federal Department of Economic Affairs	Département fédéral de l'économie DFE Eidg. Volkswirtschaftsdepartement EVD
FDHA	Federal Department of Home Affairs	Eidgenössisches Departement des Innern EDI Département fédéral de l'intérieur DFI
FHNW	UAS of North-Western Switzerland	Fachhochschule Nordwestschweiz
FHO	UAS of Eastern Switzerland	Fachhochschule Ostschweiz
FHR	Swiss Council of the Universities of Applied Sciences	Schweizerischer Fachhochschulrat der EDK (FHR) Conseil des hautes écoles spécialisées de la CDIP
FHV	Intercantonal Agreement on the UAS	Interkantonale Fachhochschulvereinbarung (FHV) Accord intercantonal sur les hautes écoles spécialisées (AHES)
FHZ	UAS of Central Switzerland	Fachhochschule Zentralschweiz, Fachhochschule Luzern
FSO	Federal statistical office	Bundesamt für Statistik BFS Office fédérale de la statistique OFS
HE	Higher education sector	Hochschulbildung Enseignement supérieur

HEI	Higher education institution	Hochschule Haute école
HEP- BEJUNE	UTE of the Cantons Berne, Jura and Neuchâtel	Haute Ecole Pédagogique - Berne - partie francophone, Jura et Neuchâtel
HEP-FR	UTE of the Canton Fribourg	Haute école pédagogique du canton de Fribourg
HEP- Vaud	UTE of the Canton Vaud	Haute école pédagogique du canton de Vaud
HEP-VS	UTE of the Canton Valais	Haute école pédagogique du Valais
HES-SO	UAS of Western Switzerland	Haute Ecole Spécialisée de Suisse occidentale
HFKG/ LEHE	Federal Act on the Promotion and Coordination in Higher Education	Bundesgesetz über die Förderung der Hochschulen und die Koordination im schweizerischen Hochschulbereich HFKG Loi fédérale sur l'encouragement des hautes écoles et la coordination dans le domaine suisse des hautes écoles LEHE
HTL	tertiary level B engineering college (technical college)	Höhere technische Lehranstalt HTL Écoles techniques supérieures ETS
HWV	tertiary level B business administration college (business and administration college)	Höhere Wirtschafts- und Verwaltungsschulen HWV Écoles supérieures de cadres pour l'économie et l'administration ESCEA
KFH	Rectors' Conference of the Swiss Universities of Applied Sciences	Rektorenkonferenz der Fachhochschulen der Schweiz KFH Conférence des rectrices et recteurs des hautes écoles spécialisées suisses KFH
PH-BE	UTE of the Canton Berne	Pädagogische Hochschule des Kantons Bern
PH- FHNW	UTE of the UAS of North-Western Switzerland	Pädagogische Hochschule der Fachhochschule Nordwestschweiz PH FHNW
PH-GR	UTE of the Canton of Graubünden	Pädagogische Hochschule des Kantons Graubünden
PH-SH	UTE of the Canton of Schaffhausen	Pädagogische Hochschule des Kantons Schaffhausen
PH-TG	UTE of the Canton of Thurgau	Pädagogische Hochschule des Kantons Thurgau
PHZ	UTE of Central Switzerland comprising the UTEs of Lucerne, Schwyz and Zug	Pädagogische Hochschule der Zentralschweiz
PHZH	UTE of the Canton of Zurich	Pädagogische Hochschule der Zürcher Fachhochschule PHZH or PH-ZFH
PMS	General baccalaureate school with a pedagogical profile, Kreuzlingen	Pädagogische Maturitätsschule Kreuzlingen PMS
SCRE	Swiss Centre for Research in Education	Schweizerische Koordinationsstelle für Bildungsforschung SKBF Centre suisse de coordination pour la recherche en éducation CSRE
SER	State Secretariat for Education and Research SER	Staatssekretariat für Bildung und Forschung, SBF Secrétariat d'Etat à la formation et à la recherche SER
SNSF	Swiss National Science Foundation	Schweizerischer Nationalfonds SNF Fonds national suisse FNS
SSRE	Swiss Society for Research in Education	Schweizerische Gesellschaft für Bildungsforschung SGBF Société suisse pour la recherche en éducation SSRE
SUPSI	UAS of Southern Switzerland	Scuola universitaria professionale della Svizzera italiana SUPSI
UAS	University of applied sciences polytechnic college	Fachhochschule FH Haute école spécialisée HES

UTE	University of teacher education teacher's college, school of education	Pädagogische Hochschuls PH Haute école pédagogique HEP
ZFH	UAS of the Canton of Zurich	Zürcher Fachhochschule
ZHAW	Zurich School of Applied Sciences	Zürcher Hochschule für Angewandte Wissenschaften ZHAW
ZHdK	Zurich University of the Arts	Zürcher Hochschule der Künste ZhDK