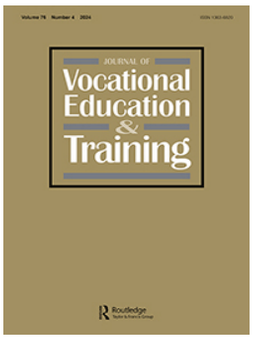

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# Facilitators of and barriers to recognition of prior learning in higher vocational and professional education

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**ABSTRACT**

Recognition of prior learning (RPL) has gained importance as an instrument for promoting the permeability of education and training systems. Despite the many advantages at the individual and social level, such as supporting lifelong learning processes, previous research indicates that RPL implementation encounters various barriers at different levels. This study aimed to investigate the facilitators of and barriers to RPL implementation for access to higher vocational and professional tertiary education in Switzerland from the perspective of RPL providers. National and organisational framework conditions as well as factors at the study programme level were considered. Data were collected via a nationwide online survey covering professional education institutions. The sample comprised 156 persons responsible for 191 study programmes at professional education institutions in the fields of engineering, economics, healthcare, and social care. A logistic regression analysis revealed that RPL implementation for access to a study programme was most likely in the following contexts: less regulated professional fields, high workforce shortage, and favourable organisational RPL policies. Furthermore, the results suggest that the attitudes towards RPL held by those responsible are decisive in designing effective interventions.

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Facilitators; barriers; recognition of prior learning; tertiary education; higher vocational and professional education; organisation

## Introduction

Recognition of prior learning (RPL) has been gaining importance as an educational policy goal in Europe and around the world in the context of the implementation of lifelong learning policies since the early 21st century (Commission of the European communities 2001, Council of the European Union 2009; Maurer 2023a). RPL has different terms, definitions, and practices depending on the context and approach (Andersson, Fejes, and

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Sandberg 2013). This study examines RPL in the context of tertiary education, specifically higher vocational and professional education. Tertiary education (ISCED levels 5–8) includes academic tertiary education (i.e. at universities and other higher education institutions) but also higher vocational or professional tertiary education (United Nations Educational, Scientific and Cultural Organization 2012). While some countries, such as Switzerland, have established a separate higher vocational and professional tertiary education sector, in other countries practically oriented professional programmes are taught within academic tertiary education institutions (Organisation for Economic Co-operation and Development 2022). Based on Bohlinger (2017), we define RPL as the acceptance and accreditation of a person's 'learning results and/or previously received formal qualifications and certificates' (p. 589). This broad definition of RPL includes all forms of learning outcomes – that is, nonformal (e.g. acquired in continuing education and training) and informal (e.g. acquired in the workplace) learning outcomes in addition to formal education qualifications.

One of the main targets of RPL is increasing the permeability of education and training systems, benefitting both the individual and society (e.g. Andersson 2008; Prawelska-Skrzypek et al. 2013; Villalba-Garcia 2021; Werquin 2010). RPL can facilitate individuals' access to tertiary education and the labour market, thus increasing their social and economic inclusion and facilitating opportunities for further educational careers and mobility. Furthermore, RPL is beneficial for society because it supports lifelong learning processes and makes better use of the potential in education and training systems, thereby contributing to economic development and prosperity and alleviating the shortage of skilled labour.

At the higher vocational and professional tertiary education level, RPL can lead to students being exempted from parts of the training or being admitted to a study programme even though they do not meet the regular admission requirements, which is the focus of this study.

Despite offering many advantages, the educational policy goals of RPL have yet to be achieved. Overall, RPL has facilitated access to qualifications for far fewer people than expected, both in upper-secondary vocational education and training (Maurer 2019, 2023b) and in tertiary education (Cooper, Ralphs, and Harris 2017). While barriers to RPL implementation in academic tertiary education (e.g. at universities) have been identified at different levels and in different contexts (e.g. Brenner et al. 2021; Müller et al. 2015), relatively few studies have specifically examined the factors that promote and hinder RPL in the context of accessing higher vocational and professional tertiary education (e.g. Baumeler et al. 2023). In fact, a substantial part of the literature on RPL deals with RPL in academic tertiary education, although it is generally assumed that RPL is easier to implement in higher vocational and professional tertiary than in academic tertiary education since the study programmes at professional education

institutions are oriented towards the needs of the labour market and the required professional experience of students (Harris and Wihak 2017). Furthermore, to date, few studies have used quantitative methods and considered several variables simultaneously and interdependently to explain RPL implementation (Boden et al. 2022).

Among more recent studies focusing on barriers to RPL implementation – most of them in academic tertiary education, some have dealt specifically with factors on the part of RPL candidates, such as high financial costs, barriers to learning, and difficulties in visualising and articulating the tacit knowledge gained through work experience (e.g. Cooper 2011; Ions and Sutcliffe 2019). Other studies have analysed explanatory factors on the part of RPL providers at different levels, such as the organisational level and the study programme level – that is, at the level of RPL implementation by those responsible (e.g. Hanak and Sturm 2015; Salzmann et al. 2022 in higher vocational and professional tertiary education). Furthermore, the actors (i.e. RPL candidates and the persons responsible for RPL implementation) operate within the respective national context and professional field, whose framework conditions also influence RPL implementation.

The present study examines the facilitators of and barriers to gaining access through RPL to study programmes at tertiary-level professional education institutions (also called colleges of higher education) in Switzerland from the perspective of RPL providers. Drawing on a conceptual framework that considers national framework conditions, factors at the organisational level, and factors at the study programme level, we explain the likelihood of RPL implementation for the admission of individuals who do not meet the regular admission requirements. The results of this study are of high practical relevance as they show which factors may favour or inhibit RPL in terms of broadening access to higher vocational and professional tertiary education; the results also indicate where to start pursuing the educational policy goal of promoting the permeability of the education system.

### *National framework conditions*

At the national level, legal provisions, national RPL policies, and professional bodies' provisions define the framework within which RPL occurs. Studies have shown that countries in Europe and worldwide are at different stages of development in integrating RPL into qualification systems and facilitating access to academic tertiary education for specific groups of students (Boden et al. 2022; Müller et al. 2015). A high degree of permeability of education systems and the compliance of institutional RPL policies with a national legislative and regulatory framework allowing flexible and open access to RPL have been found to be relevant factors for successful RPL implementation at the national level (Conrad 2010; Hlongwane 2019; Müller et al. 2015).

Moreover, at the national level, professional bodies influence RPL implementation by determining the content of training and admission requirements to study programmes in their professional fields (Harris and Wihak 2017). Access to largely regulated professional fields in which professional activities can only be carried out by those with specific qualifications is more restrictive than access to less regulated professional fields; consequently, it is more difficult, for example, to acquire specialised experiential knowledge that may subsequently be recognised for admission to relevant study programmes (Boden et al. 2022; Harris and Wihak 2017).

Furthermore, RPL implementation is influenced at the national level by labour market demand. In professional fields suffering from high workforce shortages, RPL is an instrument for expanding study programmes to new target groups, shortening educational pathways, and accelerating the attainment of formal qualifications, both in higher vocational and professional tertiary education programmes (Engelage et al. 2024; Maurer 2021, 2023a) and in academic tertiary education (Müskens 2020; Prawelska-Skrzypek et al. 2013). At the same time, a saturated labour market can be a barrier to RPL implementation (Cooper and Harris 2013).

### *Factors at the organisational level*

There is empirical evidence that the presence or absence of organisational RPL policies influences RPL implementation. Based on expert interviews at universities, Hanak and Sturm (2015) found that university management is often not the driving force behind the definition of RPL structures and processes; rather, external pressure to act, such as changing legal framework conditions, has led to an examination of the topic within these organisations. The manner in which legal provisions and national RPL policies are implemented at an organisational level depends heavily on the self-image, established culture, and strategic considerations of the organisation, as Engelage et al. (2024) also showed for higher vocational and professional tertiary education.

Pitman and Vidovich (2013) argued, based on the examination of the institutional policies and practices of three Australian universities, that RPL is not an objective assessment of whether an individual's prior learning is equivalent to admission requirements or parts of the study programme; rather, it also involves an assessment of 'its equivalence in socio-cultural influence (or knowledge as power),' prioritising some learning outcomes over others (p. 502). They also highlighted the strategic function of RPL. Accordingly, an organisation uses RPL for its own benefit rather than for the benefit of its students, 'specifically to maintain or even increase its own dominance relative to other universities' (p. 502). RPL may be rejected if it is perceived as a threat to an organisation's or a study programme's positioning within the professional field or to

demonstrate power as well as exclusivity of access for students (Cooper and Harris 2013).

In contrast, RPL may be implemented because it conforms to the tradition and values of an organisation or a professional field or because of strategic considerations to broaden access to study programmes (Engelage et al. 2024). A conducive RPL policy is characterised by the fact that RPL structures and processes are defined within an organisation. This includes measures such as defined responsibilities and methods as well as counselling opportunities that influence RPL implementation (Cendon et al. 2020; Hanak and Sturm 2015; Müller et al. 2015; Prawelska-Skrzypek et al. 2013; Wesley and Parnell 2020).

### *Factors at the study programme level*

The administrative processes and RPL procedures mostly occur in a decentralised manner at the study programme level (Hanak and Sturm 2015; Salzmann et al. 2022). At this level, the persons responsible for RPL implementation play an important role. Through their attitudes and related 'pedagogic agency' (Cooper and Harris 2013, 451; Cooper, Ralphs, and Harris 2017, 205), those responsible for RPL implementation in an organisation can act as facilitators or inhibitors within the room for manoeuvre they possess, as also shown by evidence from vocational and professional education (Baumeler et al. 2023; Maurer 2023b). These mechanisms can make it difficult for students to get their prior learning recognised even if the organisational policy seems to favour RPL.

Müller et al. (2015) identified 'mindset' as a major barrier to facilitating access to academic tertiary education for students engaging in lifelong learning (p. 546). In particular, concerns about declining training quality and the associated loss of prestige, in addition to a lack of trust in the quality of learning outcomes acquired at other institutions or outside the formal education system, seem to be major factors creating resistance to allowing individuals access to study programmes through RPL (Hanak and Sturm 2015; Hanft and Müskens 2019; Jaudzims 2023; Müller et al. 2015; Prawelska-Skrzypek et al. 2013). The time required to process RPL applications in combination with often inadequate financial and personnel resources can also have an unfavourable effect on RPL implementation. The additional effort involved encourages a negative attitude towards RPL among those responsible from the outset (Hanak and Sturm 2015; Jaudzims 2023; Prawelska-Skrzypek et al. 2013).

### *Professional education institutions in Switzerland*

In Switzerland, vocational education and training (VET) is the most popular form of upper secondary-level education and training. Two-thirds of all young people who have finished compulsory education enrol in VET programmes. Holders of a federal VET diploma have the competences needed to work in a specific

occupation and have direct access to higher vocational and professional tertiary education. The practically oriented higher vocational and professional tertiary education sector and the academic tertiary education sector with its universities, institutes of technology and other higher education institutions constitute Swiss tertiary education. Higher vocational and professional tertiary education builds on existing work experience and is designed to meet the needs of the labour market. It comprises federal professional examinations and study programmes at professional education institutions. Federal professional examinations are intended for professionals who aim to specialise in a field after completing VET and hold managerial positions. Study programmes at professional education institutions are also practically oriented but cover a broader and more general range of topics than those addressed in federal professional examinations (State Secretariat for Education, Research and Innovation (SERI) 2022).

Professional education institutions, which are our study focus, offer study programmes in eight professional fields. Depending on previous education, these study programmes comprise 3600 or 5400 learning hours and can be completed either full-time or part-time. In 2019, 9700 successful candidates were awarded an advanced federal diploma of higher education at ISCED level 7. This is more than a third of all higher vocational and professional tertiary education qualifications and more than a tenth of all tertiary-level qualifications (Federal Statistical Office 2020).

Only professional education institutions whose study programmes have been recognised by the Confederation (i.e. the SERI) may award advanced federal diplomas of higher education. The respective national ordinance (Ordinance on the Minimum Requirements 2017) clarifies the recognition procedure of study programmes, regulates the study programmes, and defines the requirements for the core syllabuses and the education providers. It does not contain any specific provisions on RPL, but merely states that the professional bodies, together with the education providers define the general terms of admission and *can* define criteria for the recognition of prior learning in national core syllabuses. National core syllabuses form the basis of each study programme. The elements determined by the core syllabuses include the professional profile, the competences to be acquired, the content and requirements of the qualification procedure, and the general terms of admission. They specify whether work experience or an aptitude test are required in addition to an upper secondary-level vocational or general education qualification. Unlike in upper-secondary VET (SERI 2017, 2018), the possible forms and the basic process of RPL for higher vocational and professional tertiary education in Switzerland are not defined at national level. Furthermore, in contrast to VET, it is not the cantons that are responsible for implementing RPL in higher vocational and professional tertiary education, but the education providers themselves.

At professional education institutions, RPL can lead to students being admitted to a shortened study programme or being exempted from parts

of the study programme because they can prove that they have already acquired the relevant competences. Moreover, individuals who do not meet the regular admission requirements can gain access through RPL to a study programme, which is the focus of this study (Salzmann et al. 2021, 2022). To date, there is no option for students at professional education institutions in Switzerland to obtain an advanced federal diploma of higher education through RPL (i.e. full validation) as it is the case with the validation of prior learning pathway in upper-secondary VET (Salini and Salzmann 2020; Salini, Weber Guisan, and Tsandev 2019; SERI 2022). The private sector, including professional bodies, is a key player in higher vocational and professional tertiary education. The provisions of these bodies and the regulation of the professional field play a decisive role in determining the leeway professional education institutions possess in implementing RPL. In Switzerland, legislation requires regulated professional activities to be carried out by people with specific professional qualifications, which can make it difficult to gain professional experience that can be recognised. Professional activities may be regulated by either federal or cantonal legislation. In some cases, cantonal legislation is harmonised and valid in all cantons, which is tantamount to federal regulation. However, in other cases, professional activities are only regulated in certain cantons, or legislation is not harmonised in these cantons, which can lead to different requirements for practising the profession throughout the country. Furthermore, in some cases, professional activities are not regulated by legislation; consequently, employers determine which qualifications are required for professional practice (SERI 2024).

### *Hypotheses*

Based on a conceptual framework that considers national framework conditions, factors at the organisational level, and factors at the study programme level, as well as the state of research presented above, we propose the following hypotheses:

**Hypothesis 1** (H1): In professional fields in which professional activities are largely regulated by harmonised cantonal or federal legislation, gaining access to a study programme through RPL is less likely than in unregulated or less regulated professional fields.

**Hypothesis 2** (H2): Workforce shortages in the labour market for which a study programme provides training are associated with an increased likelihood of RPL implementation for admission to study programmes.

**Hypothesis 3** (H3): A favourable organisational RPL policy is associated with an increased likelihood of RPL implementation for admission to study programmes.

**Hypothesis 4** (H4): The responsible persons' concerns about declining training quality and high costs are associated with a reduced likelihood of RPL implementation for admission to study programmes.

## Method

### *Research design and sample*

The data were collected in two steps. First, the directors ($n = 195$) of all professional education institutions in Switzerland were contacted and asked to provide the email addresses of all persons responsible for the study programmes at their institutions. Second, an online questionnaire was sent to 272 responsible persons, of whom 221 responded (return rate of 81%). The data collected covered all professional fields in which study programmes are offered at professional education institutions in Switzerland. For this study, we only considered the four largest professional fields, with datasets of at least 20 study programmes each: engineering ($n = 70$), economics ($n = 39$), healthcare ($n = 56$), and social care ($n = 26$). Three cases were excluded due to missing values on independent variables, resulting in a final sample of 191 study programmes. A total of 156 persons responsible for the 191 study programmes and, thus, RPL implementation at professional education institutions throughout Switzerland filled out the online survey. Participants who were responsible for several study programmes received a questionnaire for each programme. The ethical standards of the American Psychological Association were adhered to in conducting the study, including the treatment of human research subjects.

### *Measures*

All data except workforce shortage data were gathered through an online questionnaire in three national languages (i.e. German, French, and Italian). Table 1 provides the source information, sample items and coding, and number of items for each variable in this study.

RPL implementation was measured using a single item with a 4-point scale (1 = *never* to 4 = *frequently*) and subsequently dummy coded.

The list of regulated professional activities in Switzerland (SERI 2024) was used to determine whether and how the professional activities carried out by holders of various diplomas from professional education institutions are regulated within the four professional fields. In healthcare, all professional

**Table 1.** Items and scales used.

| Variable | Source | (Sample) Items and coding | No. |
|---|---|---|---|
| RPL implementation | Salzmann et al. (2021, 2022) | 'How often individuals who did not meet the regular admission requirements were admitted to the study programme through RPL in 2019?'<br>Dummy coding: 0 = never (RPL not implemented); 1 = rarely to frequently (RPL implemented) | 1 |
| Regulation of professional field | SERI (2024) | 0 = healthcare (largely regulated by harmonised cantonal or federal legislation); 1 = social care (largely regulated by cantonal legislation but not harmonised); 2 = engineering (largely unregulated); 3 = economics (generally unregulated) | 1 |
| Workforce shortage | SECO (2023) | Index of six indicators: unemployment rate, vacancy rate, immigration rate, qualification requirements, employment growth, and demographic replacement needs.<br>Index values from 0 to 10; 5 = overall economic average | 1 |
| Organisational RPL policy | Damm (2018) | Sum score of four implemented RPL measures: defined responsibilities for RPL, counselling opportunities, documentation of previous RPL decisions, and defined methods for analysing and evaluating prior learning outcomes | 4 |
| Concerns about declining training quality | Damm (2018), Salzmann et al. (2021, 2022) | 'To what extent do you agree that the following are important reasons against RPL?'<br>'Quality of training declines'<br>'Gaps in students' skills acquisition'<br>'Reputation of the professional education institution declines'<br>'High drop-out rate among students who have benefited from RPL'<br>6-point Likert-type scale: 1 = strongly disagree to 6 = strongly agree | 4 |
| Concerns about high costs | Damm (2018), Salzmann et al. (2021, 2022) | 'To what extent do you agree that the following are important reasons against RPL?'<br>'Financial expenditure'<br>'Time expenditure'<br>'Lower income due to reduced tuition fees'<br>6-point Likert-type scale: 1 = strongly disagree to 6 = strongly agree | 3 |

RPL = recognition of prior learning.

activities are regulated by harmonised cantonal or federal legislation, with one exception (i.e. activation specialist). In social care, professional activities are largely regulated by cantonal legislation but not harmonised. In engineering, professional activities are largely unregulated; the exceptions are electrical engineering, which is regulated by federal legislation, and civil engineering and architecture, which are regulated only in certain cantons. In the field of economics, professional activities are generally not regulated by legislation.

The workforce shortage index for 2019 released by the State Secretariat for Economic Affairs (SECO 2023) was used to indicate the structural need for skilled labour for occupations that the study programmes provide training for.

Organisational RPL policy was measured based on the number of RPL measures implemented in professional education institutions with a high number of implemented RPL measures indicating a favourable RPL policy.

**Table 2.** Descriptive statistics and nonparametric correlation of the study variables.

| | *M* (*SD*) | Ra. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| (1) RPL implementation | .44 (.5) | 0–1 | – | | | | | |
| (2) Regulation of professional field | 1.25 (1.1) | 0–3 | .22* | – | | | | |
| (3) Workforce shortage[a] | 6.03 (.97) | 3.4–7.5 | .18** | −.07 | – | | | |
| (4) Organisational RPL policy | 2.92 (1.32) | 0–4 | .26** | .13* | .22** | – | | |
| (5) Concerns about declining training quality | 3.05 (1.16) | 1– 6 | −.18* | −.04 | .01 | −.12* | – | |
| (6) Concerns about high costs | 2.78 (1.26) | 1– 6 | .05 | .04 | −.10 | −.10 | .13* | – |

*N* = 191. Ra. = range; RPL = recognition of prior learning. Correlation coefficients: Kendall-Tau-b.

'Concerns about declining training quality' and 'concerns about high costs' are two scales to determine the responsible persons' attitudes towards RPL. They measure the extent to which declining training quality and high costs are reasons against RPL from the perspective of those responsible. As no validated instruments exist to measure attitudes towards RPL, the scales were developed based on previous literature (Damm 2018) and the results of a previous exploratory qualitative interview study (Salzmann et al. 2021). The seven items displayed in Table 1 were subjected to a principal component analysis. Kaiser's criterion was .716, indicating a good factor analysis, and Bartlett's test was significant ($p < .001$). An examination of Kaiser's criterion and the scree plot indicated empirical justification for retaining two factors with eigenvalues ≥ 1, which accounted for 60.6% of the total variance. Both scales had internal consistencies of at least .70.

### *Analysis strategy*

A hierarchical binary logistic regression analysis was conducted with IBM SPSS to assess the impact of several independent variables (i.e. regulation of the professional field, workforce shortage, organisational RPL policy, and concerns about declining training quality and high costs) on the likelihood of individuals who did not meet the regular admission requirements being admitted through RPL to study programmes at professional education institutions. Preliminary analyses were conducted to ensure that there was no violation of the assumptions of sample size, multicollinearity, and outliers (Pallant 2020). A nonparametric correlation of the independent variables with the dependent variable (i.e. RPL implementation) showed significant low to medium correlation values (Table 2). Except for concerns about high costs ($\tau = .05$), all correlation coefficients adhered to our expectations. The independent variables were included blockwise in the logistic regression model.

**Table 3.** Distribution of RPL implementation, the Workforce Shortage Index, the Number of Implemented RPL Measures, and concerns about declining training quality and high costs by professional fields.

| | RPL implementation | | Workforce shortage[a] | | Concerns about declining training quality | | Concerns about high costs | |
|---|---|---|---|---|---|---|---|---|
| Professional field | Yes | No | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Healthcare ($n = 56$) | 16 (29%) | 40 (71%) | 6.21 | .79 | 3.03 | 1.17 | 2.79 | 1.37 |
| Social care ($n = 26$) | 10 (38%) | 16 (62%) | 4.57 | .33 | 2.63 | .97 | 3.48 | .91 |
| Engineering ($n = 70$) | 32 (46%) | 38 (54%) | 5.91 | .41 | 3.29 | 1.12 | 2.61 | 1.13 |
| Economics ($n = 39$) | 26 (67%) | 13 (33%) | 6.93 | 1.01 | 2.93 | 1.29 | 2.59 | 1.40 |

RPL = recognition of prior learning.
[a]The average workforce shortage only refers to the study programmes included in this study.

## Results

Preliminary analyses, including descriptive statistics, revealed that, in 44% of the study programmes ($N = 191$), individuals who did not meet the regular admission requirements were granted access through RPL in 2019. RPL was most frequently implemented in the field of economics, namely in 26 out of 39 study programmes (67%; see Table 3). Across the 191 study programmes, the average workforce shortage index was $M = 6.03$ ($SD = .97$, see Table 2), with the highest value in economics ($M = 6.93$, $SD = 1.01$). On average, 2.29 RPL measures were implemented in the professional education institutions ($SD = 1.32$). The persons responsible for RPL implementation expressed moderate concerns about declining training quality ($M = 3.05$, $SD = 1.16$) and rather low concerns about high costs ($M = 2.78$, $SD = 1.26$). Table 3 shows the distribution of the variables by professional field.

As a result of the blockwise introduction of the predictors, the model quality significantly improved. Block χ2 values show that each block significantly contributed to the model. Nagelkerke's pseudo-$R^2$ values for each model are displayed in Table 4. The full regression model accounted for 28.2% of the total variance in RPL implementation and correctly classified 69.9% of cases. Goodness-of-fit was assessed using the Hosmer – Lemeshow test, indicating a good model fit, $\chi2\ (8) = 13.113$, $p < .05$. As shown in Table 4, all predictors except regulation of the professional field of social care significantly contributed to the full model.

With all other predictors held constant, regulation of the professional field best predicted RPL implementation. Consistent with H1, individuals who did not meet the regular admission requirements were significantly more likely to gain access to a study programme through RPL in the largely unregulated professional field of engineering (OR 4.225) and the legally unregulated field of economics (OR 3.647) than in healthcare, in which professional activities are largely regulated by harmonised cantonal or federal legislation. The field of social care, in which professional activities are largely regulated by cantonal legislation but not harmonised, did not

**Table 4.** Factors predicting RPL for admission to study programmes at professional education institutions: results of the Hierarchical Binary Logistic Regression Analysis.

| Predictor variables | Model 1 | Model 2 | Model 3 (full model) |
|---|---|---|---|
| Regulation of professional field[a] | | | |
| Social care | 4.793* | 5.051* | 3.273 |
| | (.693) | (.704) | (.741) |
| Engineering | 2.698** | 3.113** | 4.225*** |
| | (.404) | (.421) | (.453) |
| Economics | 3.453** | 2.911* | 3.647** |
| | (.484) | (.494) | (.516) |
| Workforce shortage | 1.911** | 1.795* | 1.833* |
| | (.263) | (.262) | (.272) |
| Organisational RPL policy | | 1.540** | 1.523** |
| | | (.142) | (.147) |
| Concerns about declining training quality | | | .598** |
| | | | (.168) |
| Concerns about high costs | | | 1.459** |
| | | | (.148) |
| Constant | .007** | .003*** | .004** |
| | (1.709) | (1.759) | (1.841) |
| Block χ2 | 21.144*** | 10.442*** | 13.476*** |
| Model χ2 | 21.144*** | 31.586*** | 45.063*** |
| 2-Log likelihood | 240.862 | 230.420 | 216.943 |
| Nagelkerke's pseudo-$R^2$ | .140 | .204 | .282 |

$N = 191$. RPL = recognition of prior learning. Effect size in odds ratios and standard errors in brackets.
[a]Reference category: healthcare.
*$p < .05$; **$p < .01$; ***$p < .001$.

significantly differ from the field of healthcare, which was the reference category in the model.

In addition, as expected (H2), workforce shortages in the labour market for which a study programme provides training played a significant role as a framework condition for RPL implementation. In the full model shown in Table 4, higher workforce shortages in the respective labour market were associated with an increased likelihood of RPL implementation for admission to study programmes (OR 1.833).

Furthermore, in accordance with our assumptions (H3), a favourable RPL policy was shown to be a facilitator of RPL implementation in higher vocational and professional tertiary education. At professional education institutions with a high number of implemented RPL measures (i.e. defined responsibilities for RPL, counselling opportunities, documentation of previous RPL decisions, and defined methods for analysing and evaluating prior learning outcomes), the OR for prior learning outcomes being recognised for admission to study programmes increased significantly by a factor of 1.523.

Finally, at the study programme level, the responsible persons' attitudes towards RPL (i.e. their concerns about declining training quality and high costs) made a significant, albeit weaker, contribution to the model. As expected (H4), concerns about declining training quality were associated with a reduced likelihood of individuals who did not meet the regular

admission requirements being admitted through RPL to a study programme (OR .598). However, contrary to expectations, the likelihood of RPL implementation increased significantly by a factor of 1.459 when concerns about higher costs increased by one unit, indicating that expected costs are not a barrier to RPL implementation.

## Discussion

The main objective of this study was to gain a better understanding of the factors that promote or hinder RPL implementation in higher vocational and professional tertiary education. We specifically examined the facilitators of and barriers to gaining access through RPL to study programmes at professional education institutions in Switzerland for individuals who do not meet the regular admission requirements. We drew on a conceptual framework considering national framework conditions, factors at the organisational level, and factors at the study programme level. While previous research has mainly focused on barriers to RPL implementation in academic tertiary education (e.g. Brenner et al. 2021; Müller et al. 2015), this study specifically investigated RPL implementation in higher vocational and professional tertiary education; due to the strong labour market orientation and the required professional experience of the students, higher vocational and professional tertiary education is generally assumed to be more favourable towards RPL than university education (Harris and Wihak 2017). Furthermore, this study contributes to previous research by employing a quantitative approach that considers several explanatory variables simultaneously and interdependently to explain RPL implementation.

The first important finding of this study is that, among the predictors included in the model, national framework conditions (i.e. regulation of the professional field and workforce shortage) were most strongly associated with the likelihood of RPL implementation for admission to study programmes at professional education institutions. This is in line with the findings of Harris and Wihak (2017), who found the nature of the labour market and the employment context to play a key role in the feasibility of RPL implementation in professional programmes.

This finding corroborates H1, which states that gaining access through RPL to study programmes is less likely in largely regulated professional fields, such as healthcare, than in professional fields with largely or legally unregulated access to the labour market, such as engineering and economics. The results indicate that, in comparison to the healthcare field (in which professional activities are largely regulated by harmonised cantonal or federal legislation), being admitted to study programmes through RPL is more likely, albeit not significantly, in the field of social care (which is largely regulated by cantonal legislation but not harmonised). One interpretation of this finding is that there is more room for

manoeuvre for RPL implementation in unregulated or less regulated professional fields, giving institutions the opportunity to admit individuals with differing educational backgrounds (Engelage et al. 2024). However, in addition to regulation, other characteristics of a professional field may have an impact on whether or not RPL occurs.

Furthermore, in accordance with H2 and prior research (Engelage et al. 2024; Maurer 2021, 2023a; Müskens 2020; Prawelska-Skrzypek et al. 2013), workforce shortages in the labour market for which a study programme provides training were found to be a facilitator of RPL implementation. This result supports the current interpretation that, in fields suffering from high workforce shortages, RPL is used as an instrument to open study programmes to new target groups and provide the labour market with skilled labour more quickly by shortening educational pathways (Engelage et al. 2024; Maurer 2021, 2023a; Müskens 2020; Prawelska-Skrzypek et al. 2013).

A second important finding is that, as expected (H3), a positive association was found between a favourable organisational RPL policy and the likelihood of RPL implementation. These results are in line with previous research showing that RPL is most likely to be implemented in institutions that have established RPL measures at the organisational level, including well-developed evaluation and accreditation procedures, defined responsibilities, and counselling services for candidates interested in RPL (Cendon et al. 2020; Hanak and Sturm 2015; Müller et al. 2015; Prawelska-Skrzypek et al. 2013; Wesley and Parnell 2020). These findings support the claim that the educational organisation should be considered a central player in RPL implementation (Engelage et al. 2024; Prawelska-Skrzypek et al. 2013).

The third finding is that whether individuals who do not meet the regular admission requirements are granted access to study programmes through RPL is influenced not only by framework conditions at the national and organisational level but also by the attitudes towards RPL of those responsible for RPL implementation at the study programme level. These results support previous research (Baumeler et al. 2023; Maurer 2023b) showing that the responsible persons act as 'gatekeepers' within the organisation, promoting or hindering RPL implementation depending on their attitudes. In line with H4, we found a negative association between RPL implementation and the responsible persons' concerns about declining training quality. This result provides further evidence that a lack of trust in the quality of learning outcomes acquired outside the organisation and associated concerns about loss of prestige are factors creating resistance to open access to higher vocational and professional tertiary education through RPL (Engelage et al. 2024; Hanak and Sturm 2015; Hanft and Müskens 2019; Jaudzims 2023; Müller et al. 2015; Prawelska-Skrzypek et al. 2013). Contrary to expectations (H4), concerns about high costs were positively associated with the likelihood of RPL implementation. Individuals who did not meet the regular admission requirements were more likely to be granted access

through RPL to study programmes when those responsible stated that high time and financial costs were reasons against RPL from their perspective. One interpretation of this finding is that the responsible persons who implement RPL in their study programmes, in contrast to those who do not, are more aware of the related efforts and costs involved. Despite their awareness of the disadvantages, they may generally have a positive attitude towards RPL and consider RPL a service to students. In sum, our results suggest that both national and organisational framework conditions as well as the attitudes of the responsible persons in the study programmes favour or inhibit RPL with regard to open access to higher vocational and professional tertiary education.

### *Practical implications*

In this study, regulation of the professional field and workforce shortage were important predictors of RPL implementation for admission to study programmes at professional education institutions. These national framework conditions appear to be rather difficult to influence. However, efforts to sensitise professional bodies and anchor RPL more firmly in the national core syllabuses for each study programme could be a promising approach to pursuing the educational policy goal of promoting RPL and thus increasing the permeability of the education system.

First, it would be desirable if all organisations had to develop a binding RPL policy, for example, as part of the respective federal agency's recognition procedures for their study programmes. More binding guidelines at the national level would contribute to a uniform understanding of RPL and promote RPL implementation, even if a one-size-fits-all solution or all professional education institutions might not be the right approach (Baumeler et al. 2023; Salzmann et al. 2022).

Second, the results of this study support prior research evidence (Müller et al. 2015) that the 'mindset' of those responsible for RPL implementation at the study programme level is a major barrier to RPL implementation. Raising awareness of the benefits of RPL and increasing exchanges between the persons responsible for RPL implementation within and between organisations could promote a positive attitude towards RPL and counteract concerns about declining training quality (Jaudzims 2023).

### *Limitations and future directions*

Our study focused on facilitating access through RPL to higher vocational and professional tertiary education for individuals who do not meet the regular admission requirements. Future research should examine other forms of RPL, such as the admission of certain groups of students to shortened study programmes and dispensations from parts of the

training, to determine whether the same explanatory variables are decisive in these forms of RPL. Furthermore, research should be extended to other professional fields and to characteristics other than the regulation of professional activities to better understand the differences in RPL implementation between professional fields.

A methodological strength of this study is that several explanatory variables at different levels were considered simultaneously and interdependently to explain RPL implementation. However, the sample was too small to apply more elaborate methods, such as multigroup structural equation modelling, which would have allowed us to test whether the model was valid and which parameters of the model varied across professional fields. Although it would be desirable to test the model on a larger sample, this is likely to be difficult in the context of Swiss higher vocational and professional tertiary education, as the total number of study programmes per professional field is limited depending on the sector.

The second limitation is related to the design of the study. As the data are cross-sectional, no causality statements can be made. To test cause-and-effect relationships, an experimental design with a time lag between the measurement of the independent variables and the dependent variable (i.e. RPL implementation) would be required.

The third limitation concerns some of the applied measures. As only a few validated measurement instruments exist in the field of RPL, parts of the questionnaire were developed based on previous literature (Damm 2018) and the results of a previous exploratory qualitative interview study (Salzmann et al. 2021). In addition, some of the measures have not been previously used in the context of higher vocational and professional tertiary education. More research is needed to validate the measures used in this study and test them in other contexts. Replicating this study's methodology in other sectors of the Swiss education system or in the education systems of other countries will reveal the extent to which the findings of this study can be generalised to other contexts.

Finally, the findings of this study support Müller et al.'s (2015) claim that more research is needed on 'resistance to the concept of opening up from an individual, institutional and national perspective' to achieve the educational policy goal of increasing the permeability of education and training systems through RPL (p. 546). Alternatively, to use Jaudzims's words (2023, 125, originally in German), a 'cultural change' must be achieved to change the practice of RPL.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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