

Equivalent? Not quite. Employer perceptions of the value of alternative skill certification credentials in the childcare sector in Switzerland.

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In advanced knowledge economies, access to good quality employment depends crucially on certified skills. Individuals who obtained their qualifications abroad or have acquired the relevant skills in an informal setting face a risk of labour market marginalization. To deal with this problem, several countries have introduced alternative skill certification credentials, obtained either through the recognition of prior learning (RPL) or the recognition of foreign degrees. Relying on signalling vs. human capital explanations of the value of educational credentials, we study employers' perception of alternative credentials. First, with a large-N quantitative study we assess whether these are considered by employers to be of equal value to standard ones. Second, on the basis of qualitative interviews, we focus the employers' motivation behind their attribution of value to these degrees. We find that alternative certificates are highly, albeit not equally valued, as standard ones. The reason for their lower value is related to a different kind of human capital certified in these credentials and not so much because of a weaker signalling value.

Introduction

In advanced knowledge economies, access to good quality employment depends crucially on certified skills. This is particularly the case in countries where the labour market is dominated by vocational training, like Germany or Switzerland. In these countries, which are often referred to as "collective skill formation systems" (CSFS) (Busemeyer & Trampusch, 2012), vocational training is organised jointly by the state and employers. As a result, a high level of standardization in vocational degrees provides occupational credentials that have validity across firms and sectors (Allmendinger, 1989, p. 236; Kerckhoff, 2001). Employers invest comparatively little resources in screening candidates, but rely to a large extent on the information provided by formal skill certification.

Relying on credentials when hiring is efficient, especially from the point of view of employers, but it also has shortcomings. Particularly, individuals who have acquired the relevant skills through experience without obtaining a formal certification, encounter great difficulties in accessing good quality employment. This can be the case for example of individuals who change occupation, migrants who obtained qualifications abroad or anyone who has acquired the relevant skills in an informal setting. These profiles may be disadvantaged in collective skill formation systems, as shown by the fact that unemployment rates for foreigners tend to be higher in countries with strong VET systems (Lancee, 2016). These groups are exposed to a strong risk of labour market marginalization everywhere, but particularly in collective skill formation systems.

Public authorities are aware of this problem, and steps have been taken in several CSFS in order to facilitate access to formal credentials to individuals who possess the required skills, but not the formal certification. This has been done by developing what we refer to as **alternative skill certification credentials**. The two main avenues are “Recognition of prior learning” (RPL) and the formal recognition of foreign degrees. These developments are often considered promising both in terms of improving social inclusion of and the quality of skill certification in general (Anderson et al 2013; Bohlinger 2017).

However, this movement is also characterised by a tension observed more generally in collective skill formation systems between the perceived value of a credential and how accessible it is (Bonoli and Emmenegger 2022; Carstensen and Ibsen 2021). The tension, which opposes the objectives of equality and efficiency of a skill formation system, plays out between actors who are inclined to support an expansion of alternative credentials (e.g. trade unions, welfare departments), and actors who tend to limit it like employers and government departments responsible for vocational training (Maurer 2022).

This tension can also be understood in theoretical terms, and it relates to the debate on the factors that explain the value of educational credentials, in particular whether credentials matter because of the information they convey in terms of human capital or because of their signalling value (Arrow 1973; Bills 2003; Huntington-Klein 2021). First, for alternative credentials to be considered of equal value, it is essential that all the relevant aspects of human capital are properly tested and that the requirements are the same than those of the standard qualification. Second, if we assume that at least part of the value of a vocational degree is due to its signalling value, then an excessively inclusive approach to the recognition of prior learning and of foreign degrees may reduce the value of these alternative credentials in the eyes of employers. The signalling value of a degree depends on its “filtering” function, i.e. the capacity to select only candidates who possess given qualities (Arrow 1973). Alternative skill certification credentials are created with the explicit intention to allow individuals who are unlikely to obtain the standard degree, to nonetheless have their skills certified. We could thus expect their signalling value to be lower.

Policy-makers seem to be aware of this putative trade-off between perceived quality and accessibility of degrees. As a result, even though there are variations in national approaches, the movement towards the development of alternative credentials is not uncontroversial and several obstacles have been identified in comparative studies (e.g. Bohlinger 2017). As will be shown below, in Switzerland too the expansion of alternative credentials has been limited and patchy (Maurer 2019; 2022)

While there is a growing literature on alternative skill recognition credentials, we have little reliable empirical knowledge of what employers think of the degrees obtained through these channels. Do these credentials have the same value in the eyes of employers as those obtained through a standard channel? Or are they considered inferior? If so, why? Very few empirical studies have tried to answer these questions and the ones we are aware of focus only on the recognition of foreign credentials (Damelang, Ebensperger, & Stumpf, 2020; Tibajev & Hellgren, 2019).

Empirically, we explore these questions in the field of childcare in the Swiss French speaking canton of Vaud with a mixed-methods research design based on the combination of a quantitative and a qualitative study (Morse and Niehaus 2016; Schoonenboom and Johnson

2017). Our first objective is to ascertain whether alternative credentials are considered equivalent to standard ones by employers. We do this with a large-N factorial survey experiment. Our second objective is to understand the motivation behind the assessment employers make of the various credentials. In order to do this, we rely on a qualitative study based with in depths interviews with a small sample of employers. This mixed-methods research design allows us to increase the validity (i.e. representativeness and limitation of the social desirability bias) of our results, as well as to deepen our understanding of the mechanisms behind those findings (Creswell, 2015; Johnson & Onwuegbuzie, 2004; Morse, 2016; Schoonenboom, 2017)

We decided to study recruitment in the field of childcare in the Swiss French-speaking canton of Vaud for a number of reasons. Childcare in French-speaking Switzerland suffers from a lack of skilled labour, and relies substantially on foreign workers and on workers who have accumulated work experience over the years, but do not necessarily have formal qualifications. This setting creates an ideal environment for our study because the various skill certification procedures are widely used and consequently well known to employers, this being an essential condition in order to study the value that employers attribute to different types of credentials.

We begin the article by outlining the institutional context and particularly how alternative skill recognition credentials are organised in Switzerland and in the field of childcare in the Canton of Vaud. Second, we discuss the theoretical implications of our research questions and formulate a number of hypotheses. We then move on to present the methodology and subsequently our results. In the last section, we conclude by highlight the implications of our findings for theory and for policy as well as some limitations of our study.

2. Context

Alternative skill certification in Switzerland

In Switzerland, a form of RPL existed long before the recent push. In the 1930s already, Switzerland introduced the possibility of obtaining a VET degree by simply passing the required exams, without need to attend any theory or practical courses, as long as the candidate had at least five years of work experience, most of it in the relevant profession (Maurer 2019; 2022). This older form of RPL, consisting of exams only, is still widely practiced. In 2019, 22% of adults over 25-year-old who received a VET initial degree obtained it through this channel (SERI 2021: 16).

More recently, a law adopted in 2002 has expanded the opportunities for RPL. In particular a process known as VNIL (Validation of Non-formal and Informal learning) has been introduced (Maurer 2022, 2019). VNIL is possibly the most accessible route to a formal qualification. Candidates don't have to take formal exams, but complement their five years of work experience with a dossier that documents the skills that they have gained on the job. In addition, they have to attend a "verification interview" (*entretien de verification*) in which an expert examines the dossier and its credibility. In practice, however, VNIL has remained rather marginal in Switzerland. While allowed by federal law, it has to be implemented by the Cantons and by professional associations. In 2018, only 10 of the 26 Cantons and only 12 out of more than 230 professions offered VNIL, mostly in the French speaking part of the country (Maurer, 2019, pp. 670-672).

As a result, the incidence of VNIL is limited. In 2019 only 8% of the over 25-year-old obtained an initial VET qualification through this channel (SERI 2021:16). However, social care (which

includes childcare) is one exception, together with healthcare. In the field of social care, it is estimated that 17% of the proportion of adult candidates who obtained a VET degree used the VNIL route against, for instance, 4% for logisticians (Wettstein quoted in Maurer 2019: 670). This high proportion can be explained with reference to the fact that social care is an expanding field with unmet personnel needs and individuals without formal qualifications or with foreign degrees easily gain access to jobs. Yet, there is a strong incentive for workers to obtain a recognised credential because salary scales often depend on formal qualifications and, in the field of childcare specifically, there are rules with regard to the proportion of staff with given qualifications within each day-care centre. This means that a formal qualification is likely to lead to both higher wages and more employment opportunities.

An additional process, important for migrants, is the recognition of foreign certificates by the relevant authorities. Depending on the occupation, the relevant authorities are the federal department responsible for vocational training, cantonal offices or an employer association. In the case of childcare, recognition is the responsibility of the federal authority responsible for skill formation, i.e. the State Secretariat for Education, Research and Innovation (SERI). In Switzerland, foreign degrees are recognized only after careful examination. Recognition requests are answered on an individual basis by the relevant authorities and take into account when and where the foreign degree has been obtained. On the upside, this ensures that recognized degrees correspond closely to their Swiss counterparts. On the downside, this makes recognition unpredictable, slow and expensive (the fee amounts to CHF 550 (or 550 EUR) per recognition requests, to be paid by the applicant (Staatssekretariat für Bildung Forschung und Innovation (SBFI), 2021).

Table 1 below shows the number of recognition requests. As can be seen, the number of recognition requests is limited, given that Switzerland receives around 200.000 foreign workers every year.

*Table 1: Number of recognition requests. NA where data was not available, * where data was obtained through personal communication.*

Recognition requests in Switzerland					
<i>Reporting year</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>		
<i>Recognition requests treated in</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>
Number of recognition requests	5.400	5.200	3.500	3.641*	3.864*
Number of requests from EU/EFTA	4.400	4.300	2.850	NA	NA
Number of requests from outside of EU/EFTA	1.000	900	650	NA	NA
Regulated occupations	NA	NA	NA	NA	2.135*
Non-regulated occupations	NA	NA	NA	NA	1.711*

*Note: NA: data was not available ; * data was obtained through personal communication. Source: (Staatssekretariat für Bildung, 2016; Staatssekretariat für Bildung, 2017, 2018)*

It is important to note that these alternative skill certification procedures are managed by the same authorities who are responsible for the standard credentials. For example, foreign degrees are recognized by the branch of the federal government (SERI) which is responsible for overseeing the standard vocational training system. Recognition of prior learning either through exams only or VNIL, are governed by the same Cantonal VET authorities that also give out standard VET degrees. In addition, candidates who only take exams take the same exams in the same professional schools that train and test candidates taking the standard paths. And finally, the requirements for the “softer” alternative credential, i.e. VNIL are based on

recommendations issued by the relevant professional training organisation¹, the same organisation which decides on the standards required for the regular degree.

As can be seen, all these alternative skill certification procedures are regulated by the same laws and institutions that govern the regular vocational training system. This means that we can expect a high level of trust in these alternative credentials. Table 1 provides a summary of the four types of credential that we consider in this study: 1) the standard VET degree based on 3 years of dual training (this is not an alternative credential, but we consider it as a benchmark against which to assess the value of the other ones), 2) RPL-exams only, 3) RPL-VNIL, and 4) the recognition of a foreign degree. It is important to note that from a strictly formal point of view, these four qualifications are equivalent.

Table 2: Four types of skill certification credential of equal formal value available in the field of childcare and in the Canton of Vaud²

	Requirements		Authority responsible for certification
Standard vocational degree	Learning / work experience	3-year dual apprenticeship (school and practice in a daycare centre)	Cantonal department of education
	Evaluation	Practical and theoretical exams in a professional school	
Exams only	Learning / work experience	Five years of work experience of which at least four in childcare	Cantonal department of education
	Evaluation	Practical and theoretical exams in a professional school (exactly as above)	
VNIL	Learning / work experience	Five years of work experience of which at least four in childcare	Cantonal department of education Professional training organisation issues recommendations
	Evaluation	Preparation of a dossier documenting the skills acquired through experience, Verification interview	
Recognition of foreign degree	Evaluation	A foreign degree recognised as equivalent	Federal government, through the State secretariat for research, education and innovation (SERI)

Source: adapted from (Ortra Santé-social Vaud, not dated)

¹ Professional training organisation (Organisationen der Arbeitswelt) play a crucial role in the Swiss vocational training system, among other by deciding on the content of training and the requirements for given diplomas (Busemeyer and Trampusch 2010).

² Some of these procedures are also available in other professions and cantons, but not necessarily all of them in the same way.

Childcare in the Canton of Vaud

In order to test our hypotheses on the value of alternative types of skill certification we selected a sector and an occupation where these credentials not only exist but are also widely used and known to employers. It is particularly important that employers have a good knowledge of these credentials so that they can have an informed opinion based on first-hand experience. This is the case of childcare in the French speaking Canton of Vaud, for a number of reasons. First, childcare has been growing rapidly over the last few years, which has resulted in a strong expansion of employment. Faced with the prospect of labour shortage, childcare centres have recruited abroad and, locally, they often hire individuals without childcare specific qualifications. Second, childcare regulation imposes quotas for qualified and non-qualified workers. Staff without a formal qualification cannot exceed 20% of the childcare care staff, OAJE 2019³. This creates a strong incentive for both employers and employees without certified skills to make use of alternative certification procedures. Third, as a result of these factors, alternative credentials have developed to a fair extent over the last few years. This has been the case especially in the French speaking part of Switzerland (Maurer, 2022). For these reasons, the childcare sector in a French speaking canton provides an ideal setting to test hypotheses concerning the value that employers attribute to the alternative credentials we are interested in.

The VET degree we are interested in is the standard degree for non-tertiary educated childcare staff. It is usually obtained through an apprenticeship lasting 3 years⁴. Students spend around three days a week in a day-care centre as apprentices, and the remaining two days in a professional school. The professional school teaches them on all aspects related to working in a day-care centre, like child development, children rights, but also in some more general analytical skills (Savoir social, 2020).

Theory and hypotheses

Theoretically, our starting point is the view that credentials have value because of the information they convey in terms of human capital and/or as signals of individual characteristics. The human capital explanation is rather intuitive and refers to the skills that someone learns and masters after completing a given education or training programme. The skills taught in schools make individuals more productive, and are therefore valued by employers. The human capital approach assumes that schooling and training teach individuals certain skills and capabilities and that these are certified by a degree (Becker, 1962, p. 9; Mincer, 1958, p. 301; Schultz, 1961, p. 3).

The signalling explanation is somewhat more complex. In this perspective, education is seen as a screening device. Participating and succeeding in education requires cognitive and non-cognitive skills, that are difficult to observe but at the same time essential for productivity in a workplace (Akerlof, 1970; Arrow, 1973; Spence, 1973). In this perspective, education does not in itself contribute to productivity, but serves as a mechanism to select the more productive individuals. According to one of the founders of signalling theory, writing about higher education “*Higher education, in this model, contributes in no way to superior economic*

³ This rule applies in the Canton of Vaud. Other cantons may have different rules.

⁴ The official name of the degree (in French) is “Certificat fédéral de capacité d’assistante socio-éducative/assistant socio-éducatif”

performance; it increases neither cognition nor socialization. Instead, higher education serves as a screening device, in that it sorts out individuals of differing abilities, thereby conveying information to the purchasers of labor” (Arrow 1973: 194).

The idea that educational credentials derive their value from the information they convey in terms of human capital and as signalling devices is widely accepted (Bills, 2003; Huntington-Klein, 2021; Weiss, 1995). However, in empirical studies it is often rather difficult to distinguish between the two effects, because they tend to covary (Pischke 2007; Huntington-Klein 2021).

In line with the literature, we expect both a human capital and a signalling effect to contribute to the value of alternative credentials. Such credentials may differ from standard ones in relation to both effects. The human capital effect may differ because of variation in the way in which skills are acquired: school AND experience for standard credentials and experience only for the alternative ones (for the RPL-based credentials). Second, their signaling value may also differ, because these credentials are based on intentionally more inclusive routes to a certificate and as a result they are less selective. Selectivity is precisely what generates a signaling value.

These assumptions have solid theoretical underpinnings. First, in relation to the *human capital* effect, it is accepted that the transfer of knowledge from work-based to school-based contexts and vice versa is difficult, and problematized in pedagogical research (Davids, Bossche, Gijbels, & Garrido, 2017; Schaap, Baartman, & Bruijn, 2012; Schwendimann et al., 2015). However, the integration of school-based and work-place learning has important benefits, adding value to the human capital of students. In particular, students learn to abstract from a concrete situation and to relate their experience to more general rules or knowledge and thus to reflect on their own professional practice: “Many agree that experience per se is not enough: to learn, one needs to reflect on experiences. However, such a reflective attitude is (usually) not spontaneous.” (Schwendimann et al., 2015, p. 370). In addition, students learn to integrate insights from different sources of knowledge, and to adapt it in their daily practice (Davids et al., 2017, p. 276).

The standard degree, obtained after three years of integrated school and workplace training, may as a result be considered superior to a degree obtained on the basis of experience alone (RPL) because of the information it conveys in terms of human capital.

Second, theory would also predict differences in the signalling value of the various credentials. A signalling perspective implies that the more accessible a credential is, the less valuable it will be for employers. This mechanism has been observed in studies on the value of diplomas in the context of educational expansion. For instance, Bol compares labor market returns to education in 28 countries he finds that with an increasing educational expansion, absolute skill levels are less important, because individuals increasingly invest in a level of education that is irrelevant for their future work prospects (Bol, 2015). In an often-quoted study, Bedard finds that increasing access to universities reduces the value of a high school diploma (Bedard, 2001). Since a larger share of able students go on to university, the signalling value of high school diplomas diminishes, because the relative ability of those candidates holding only a high school diploma diminishes (Bedard 2001). A similar effect has been found in Finland, where a reform led to an expansion at the tertiary level, and diminished the value of the VET diploma, because the assumed average ability of the students in the VET track diminished (Hämäläinen &

Uusitalo, 2008). The value of a General Education Development (GED)⁵ on the other hand does not seem to depend on the differential selectivity across US states (Tyler, Murnane, & Willett, 2000). Following a signalling theory-based understanding of what gives value to formal degrees, we would expect the alternative skill certification credentials studied in this article to be considered of a lesser value by employers. These credentials were introduced intentionally in order to be more accessible than the standard ones. Their lower selectivity will reduce their signalling value.

Human capital and signalling theory allow us to understand the mechanisms that give value to educational credentials. On the basis of these two approaches to what explains the value of education credentials, we can now formulate our own hypotheses.

H1: Alternative skill certification credentials will be considered of the same value as standard credentials

If this hypothesis is confirmed by the data, we can conclude that both the human capital and signalling values of the various credentials are very similar, in fact substitution between the two would be most unlikely. For a substitution effect to take place, either the human capital or the signalling value of the alternative credential should be considered superior to that of the standard ones, and given the above discussion, this does not seem plausible.

H2: Alternative skill certification credentials will be considered of lower value relative to standard ones

This finding could be interpreted in two different ways. It could be due to a difference in the human capital that employers associate with the different types of credentials or it could be due to signalling. Our quantitative study will not be able to discriminate between these two explanations. This is a problem common to many quantitative studies that try to separate a human capital and a signalling effect as it is rather difficult to distinguish between the two effects empirically, because they tend to covary (Pischke 2007; Huntington-Klein 2021). For this reason, in our paper we rely on the qualitative study in order to explain a possible lower value of the alternative credentials.

For our third hypothesis we exploit the variation among alternative credentials. The range of credentials considered in this study includes some variation in the sorting function of the degree obtained. The signaling value of a diploma obtained through alternative certification likely depends on the form of assessment used to establish whether the candidate obtains a diploma or not. In the domain of RPL, convergent and divergent forms of assessment are distinguished (Andersson & Osman, 2008, p. 46). Divergent models of RPL examine the knowledge and competence the individual has, and certify these skills. A popular method to establish skills in a divergent way is experiential learning, focusing on making visible and recognizing prior learning through reflection and documentation (Fejes & Anderson, 2009). RPL through diverging forms of assessment focus on certifying existing skills, rather than selecting certain candidates over others. By contrast, convergent forms of assessments compare a candidate's skills to a predetermined norm or criterion. These forms of RPL for instance involve exams in order to establish that the candidate masters the skills demanded. Divergent forms of assessment are likely to be less selective than convergent forms of assessment. In our case, compiling a dossier more closely conforms to the idea of a diverging assessment. Passing the same exam combined with work experience conforms more closely to a converging assessment.

⁵ GED (General educational development) is a credential that was introduced in the US after WWII to allow war veterans without formal education to prove their skills. It has since evolved into a second chance diploma for school dropouts (Tyler, Murnane, and Willett 2000: 432).

H3: we expect convergent forms of RPL (exams only) to be considered of higher worth than divergent ones (VNIL).

Given the fact that the two forms of RPL are similar in the way skills have been acquired (through experience) we expect a putative difference in value in favor of exams only to be due to differences in the signaling value of the two credentials.

On the basis of our theoretical framework, it is more difficult to develop hypotheses in relation to the third alternative credential considered in this study, the recognition of a foreign degree. Recognizing foreign skills makes human capital comparable for a local context, reducing the uncertainty about the kinds of skills contained in a foreign diploma (Brücker et al. 2021: 498; Damelang, Ebensperger, and Stumpf 2020: 653; Tibajev and Hellgren 2019). Degrees obtained through the recognition of a foreign certificate receive their value mostly through a translation of human capital obtained elsewhere. However, an additional signaling effect may contribute to the value of a diploma obtained through recognition, since a positive selection of candidates will go through these sometimes quite tedious processes. As a result, we do not formulate a formal hypothesis with regard to the relative value of a recognized foreign degree.

Data and methods

We decided to investigate our research question with a mixed-methods design. First, in order to test our hypotheses, we relied on a factorial survey experiment with employers in the childcare sector in the canton of Vaud. Second, we carried out in-depth interviews with 15 directors of childcare centres located in the canton of Vaud. The two components of the study were carried out independently. However, the type of credentials compared were identical in the two studies. This allows us to use the result of the qualitative enquiry to improve our capacity to interpret the results of the factorial survey experiment, thus taking full advantage of the mixed-method design (Creswell, 2015; Johnson & Onwuegbuzie, 2004; Morse, 2016; Schoonenboom, 2017).

The survey experiment

In the factorial survey experiment, we presented childcare centre directors with so-called vignettes describing fictitious candidates. Respondents then indicated how likely it was that they would invite a given candidate to an interview. Fortunately, we could work together with the administration responsible for overseeing childcare (OAJE⁶) which provided us with a list of all licensed day-care centres in the canton of Vaud (605 unique email addresses of 743 day-care centres). The email address was in principle that of the managing director of the centre.

The vignettes of fictitious candidates varied along seven dimensions, as shown in table 3. In this paper we focus on the impact of the different types of degree. The other dimensions were introduced in order to provide a more complete picture of candidates and thus facilitate the task of the respondents, by making it more similar to what they are used to. In addition, the inclusion of several dimensions reduces the visibility of the main dimension of interest and thus the likelihood of obtaining socially desirable answers. The fact that female gender appears three

⁶ The project was supported also by La Fondation pour l'accueil de jour des enfants (FAJE), the body that transfers subsidies to subsidized childcare centres.

times is meant to produce a population of fictitious candidates that resembles somewhat the real gender distribution in the profession. Again, this is done to present respondents with a situation that resembles the real world they most likely know from their own experience.

Table 2 : Vignette design

Dimension	Levels	Number of levels
Gender	Male Female Female Female	4
Ethnic origin	French Portuguese Turkish Swiss	4
Family situation	Divorced Married Single In partnership	4
Kind of diploma	Standard local VET degree RPL based on documentation (VNIL) RPL based on exam Foreign certificate with recognition Foreign certificate without recognition No professional degree	6
Extent of experience	5 years 10 years	2
Music-related hobbies	Rap Classic World music	3
Voluntary association	Joined the local chapter of the red cross Joined ethnic association [no association]	3

Source : Own Data.

The universe of possible combinations allows for 6912 ($3*3*2*6*4*4*4$) different vignettes. Given this large number of combinations, it was not possible to rate each of these vignettes multiple times with the sample of respondents we had available (around 600 day-care centres in Vaud). We therefore drew a sample of 285 vignettes from this vignette universe, relying on the SAS software providing an algorithm developed in order to maximize d-efficiency. D-efficiency ensures that the dimensions vary independently from one another (orthogonality) while maximizing level balance (all of the levels are equally frequent in the sample of vignettes drawn).

Our vignette sample has a D-efficiency of 90 (90.2028), which is a commonly accepted threshold in the literature (Auspurg & Hinz, 2015; Wallander, 2009). The design is orthogonal in all the main dimensions, as well as all of the two-level interactions. We grouped the 285 vignettes into 57 blocks of five vignettes to be presented to survey respondents also relying on SAS. We randomly allocated the email addresses obtained from FAJE/OAJE to these 57 blocks. Providing the survey software Qualtrics with this data frame, containing email addresses matched with the profiles to be presented to the survey participants allowed generating individual survey links sent to respondents. We randomized the order in which the different vignettes within a block were presented to the survey respondents in Qualtrics.

We sent out the first email inviting respondents to answer our survey on November 16, 2021, and followed up with four reminders. In total we received 359 completed surveys. This makes for a response rate of roughly 50% (0.48317). The high response rate ensured that each block (and accordingly each vignette) was rated by different respondents (see the annex for the distribution of number of ratings per block). In the data preparation, we eliminated the speeders, and only kept the observations that spent at least 5 minutes on our survey. For 43 email addresses we had more than one response; but since these were mostly email addresses with info@ we thought it likely that different persons had access to the same email address and kept all of the observations.

We estimated a multilevel model with a random intercept and a continuous dependent variable to analyse the effect of different vignette dimensions on the rating. Since each survey respondent rated multiple vignettes, it is likely that errors are correlated within raters. We therefore allowed the intercept to vary by rater, so as to control for the correlation in the errors. We relied on the lme4 package in R to obtain the estimates and confidence intervals, which were calculated with restricted maximum likelihood estimation. We looked at the distribution of the residuals and they correspond quite well to a normal distribution (see documentation in the appendix). We also estimated the same model with an ordinal dependent variable, since the ratings range from 1 to 10 but can only take on whole numbers, and are thus not continuous strictly speaking. However, the results remain fairly similar (see coefficients plot in the annex).

The qualitative study

For the qualitative study we interviewed 15 managing directors of childcare centres located in the canton of Vaud. The centres were selected so as to maximise variation on dimensions that we believed could impact on the evaluation of different degrees, i.e. urban/rural and SES of the local neighbourhood served by the centre. Interviews were carried out in Spring 2021 (see appendix XX for a full list of interviews). Interviews were recorded and fully transcribed. We coded the section of the interview where respondent provide an assessment of the various credentials of interest. We paid particular attention to the motivations provided for preferring one or the other type of credential.

Results

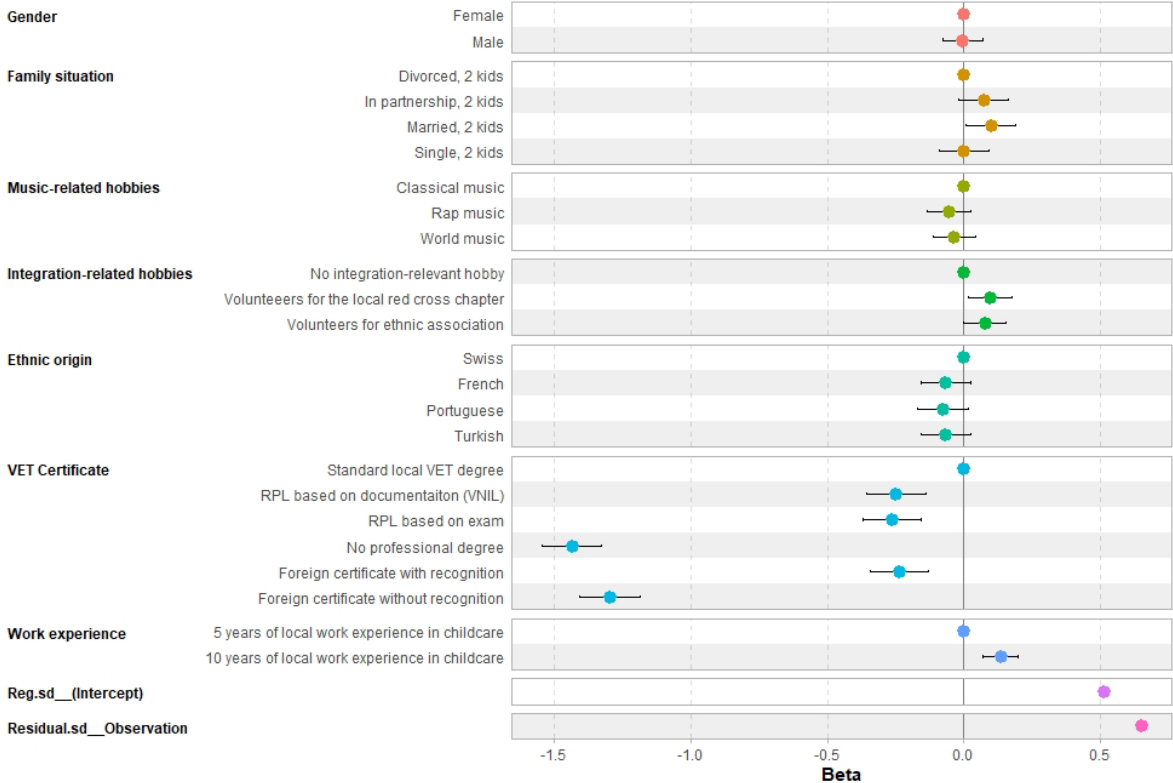
The survey experiment

Figure 1 presents all the main effects of our survey experiment. As can be seen, the diploma type is by far the most important determinant of the assessment of the fictitious candidates. As expected, the preferred credential is the standard VET diploma. The three alternative skill certification credentials, exams only, VNIL and recognition of a foreign degree are rated equally and somewhat lower than the standard diploma. Then, a non-recognised foreign degree and a candidate without professional qualification are rated substantially lower.

The other vignette dimensions do not seem to play a big role. Only experience has a clear impact, with candidates with 10 years of previous experience being preferred to those with only 5 years. Ethnicity is statistically insignificant, as is the music-related hobby. Gender does not play a role either. Family situation and the volunteering hobby have a small influence:

Volunteers for the local Red Cross chapter are liked better, than candidates that do not volunteer. Moreover, married candidates are preferred to candidates that are single, divorced or living in a partnership. But both effects are small and barely significant.

Figure 1 : Coefficient plot of the mixed model with continuous dependent variable. Standardized coefficients.



Our first and main finding is that alternative skill certification credentials have value in the eyes of employers. The difference in the average assessment of candidate with the same level of experience but with or without certification is substantial (more than 1 standard deviation). All three alternative credentials improve significantly the assessment of otherwise equivalent candidates. However, the three alternative credentials are considered of slightly less worth than the standard VET degree. The difference, while statistically significant, is not large, at around 0.25 standard deviations.

Going back to our initial hypotheses, our results clearly support H2 (lower value of alternative credentials). This result can be explained either because of the existence of a lower signalling value for the alternative credentials (which would be in line with signalling theory) or because the human capital certified in alternative skill certification procedures is not considered to be entirely the same as in standard procedures.

An additional insight can be obtained, comparing the different alternative skill certification procedures (hypothesis H3). Of the two RPL credentials, one is very similar to the certification

procedure applied in the standard process (exams only) while the other one, which does not entail a test of skills but only documentation, can be considered as more easily accessible and thus less selective. However, contrary to our expectation (based on signalling theory) the two degrees are considered of equal value by employers. This finding suggests that signalling may not be playing such a big role in differentiating the various credentials. Otherwise, we would have expected exams only to be preferred to VNIL.

Our preliminary conclusion, based on statistical analysis only, is that alternative skill certification credentials are highly valued by employers in the field of childcare, but they are considered of less worth relative to the standard VET degree. However, we are not able to explain why alternative certifications are systematically considered of less worth relative to the standard ones. In order to gain more insights on this last question, we now turn to our qualitative evidence.

Qualitative evidence

In semi structured expert interviews, we asked 15 managing directors of day-care centres to assess the various credentials and, especially, to motivate their position. Of course, qualitative interviewing is more prone to social desirability bias, and in a way, it could be perceived as inappropriate to rank the various credentials. As mentioned above, these are formally of equal value. Fortunately, in our sample, only a small number of respondents refused to rank the credentials on grounds that they are of equal value. This opinion was nonetheless expressed twice (D5 and D7).

The other interviewees had more elaborated views. Some managing directors mentioned that while experience in working with children is important, the ability to reflect and embed a professional practice in theory is also highly essential. These more analytical skills may be insufficient among those who have obtained a degree through the RPL route, where practical experience and theoretical knowledge are less interwoven. In the words of one respondent:

“Experience is something important, but it has to be reflexive. [It is not ok if experience] is not embedded in the various fields, if it doesn’t question them. And now we see more and more people taking the exams only route very quickly, just after 5 years. And they are supposed to be on the same level as those with a standard degree... I find it a bit too light, from the point of view of the theoretical knowledge” (D 4).

When asked to elaborate on what exactly they meant by “lack of theory”, it appeared that this notion referred especially to analytical and discursive skills. As one managing director put it:

“[staff should] know how to summarize a situation, how to bring it up, how to analyse it. For example, if there is a problem with a child, you cannot simply tell the parents ‘Your child is not ok, there is a problem’... You see, I am exaggerating a bit, but if you didn’t learn this [...] it is not because you have experience working with children that we can validate it” (D2).

These arguments suggest that employers assume a difference in the human capital of candidates who have acquired equivalent credentials through different routes. Particularly, the ability to combine analytical and discursive skills with practical skills is valued by employers in a

childcare centre, for example in order to communicate with parents. Some employers believe that applicants who have gone through the standard degree awarding procedure (and three year of professional school) are more likely to possess those skills than those who simply take an exam. Going back to our theoretical framework, this explanation does not suggest the presence of a signalling effect. Rather, it points to a perceived difference in human capital obtained in different educational/work experiences.

Our qualitative evidence provides some insights also on our third hypothesis (H3) on the relative value of the two RPL credentials. As seen above, contrary to expectation, the more accessible form of RPL (VNIL) was considered of equal value to the stricter one (exams only). We interpreted this as meaning that signalling does not play a large role in this case. Our qualitative evidence, however, suggests an alternative explanation. Some respondents pointed out the VNIL, even though it does not include a formal test of skills, is nonetheless a complex procedure. Its complexity may discourage less motivated candidates, and in this respect, it may function as a filter and produce a signalling effect. The absence of exams does not mean that every applicant obtains the alternative credential through VNIL, as reported by one respondent (D1). Even though VNIL was designed to make formal credentials accessible to people for whom the standard procedure would be difficult, still plays a gatekeeping function and as a result is well considered by employers.

Finally, our respondents also discussed the importance of a formal recognition of a foreign degree. In general, they find the attribution of equivalence provided by the relevant governmental agency accurate. Some point out that the criteria for recognition are very strict, and that many applicants cannot obtain such recognition directly, but need to take some additional courses/exams in Switzerland (D10). Sometimes the criteria are even considered too strict (D6). However, the lack of knowledge of the Swiss institutional landscape can be seen as a problem:

“The downside is that the societal aspects can be very different... not so much professional values, because we are in the same field... It’s the institutional aspects, sometimes it’s complicated ... in Switzerland, things even differ across cantons. Every country may have a different way of functioning in terms of rights, legal aspects, practices...” (D 4).

Like in the case of the two RPL credentials, the slight inferiority of the alternative credential “foreign degree with recognition” relative to the standard degree may not be due to signalling. Instead, what is mentioned, is the fact that important components of human capital are not properly tested in the equivalence attribution procedure, in this case, the knowledge of Swiss institutions and practices.

Conclusion

The objective of this study was to examine the value employers assign to alternative skill recognition credentials. Our theoretical starting point was the human capital vs. signalling explanation of the value of educational credentials. We assumed that these credentials could differ from standard ones on two levels: first, in relation to human capital, since skills have been acquired in different ways (experience and schooling vs. experience only); second, in relation to their signalling value, because explicitly designed to be more accessible. As a result,

we hypothesised that they may be worth less than the standard credential in the eyes of employers.

We find that indeed alternative credentials are considered to be worth less than standard ones. However, the difference is small, significantly smaller than the gain that someone obtains when moving from no formal credential to an alternative one. Our qualitative evidence suggests that the reason why the alternative credentials are worth a somewhat less is not due to a lower signalling value. Rather, these alternative qualification procedures fail to reflect some important aspects of human capital. These are assumed to be mastered by those who have taken the standard route to a degree. Importantly, we are not talking about personality traits or non-cognitive skills (which would be compatible with a signalling explanation) but skills that are very much related to the profession.

The skills our interviewees refer to are analytical and discursive skills that are needed on the job, e.g. when reporting to parents what their child has experienced during the day. In addition, for holders of recognised foreign degrees, a given level of knowledge of Swiss institutions and practices. These skills are assumed to be learned in the standard process that leads to a degree, but do not seem to be sufficiently well tested in the various alternative skill recognition credentials. These assumptions are rather plausible, and according to our respondents, based on their own experience.

These findings are relevant to the literature on the value of degrees. They suggest that the simple opposition between a human capital and a signalling effect may be too crude a simplification. We show that information concerning the way in which a given skill has been acquired is used by employers to make assumptions with regard to the acquisition of additional adjacent skills. These assumptions refer clearly to human capital (our respondent talk about professional skills) but they are not measured in the alternative credentials studied here.

Our findings have important policy implications too. When designing alternative skill recognition credentials, policy makers care about making sure that these are not too easily accessible. In other words, they care about preserving the full signalling value of the credential (on Switzerland, see Maurer 2022). They are probably right, and the result of their efforts is visible in our study, which shows that alternative credentials are considered only slightly inferior to standard ones. However, a difference in the signalling value may not be the main difference between standard and alternative credentials. Our study suggest that some important skills are not tested, neither in the standard nor in the alternative credentials, but are assumed to be mastered by those who have obtained the standard degree (because they attended professional school during three years). A simple way to increase the value of alternative credentials, without making them less accessible, would then be to include tests of these skills. Methodologically, our study illustrates the additional leverage researchers can obtain by relying on a mixed method design. Taken separately our two studies would have been much less insightful. The survey experiment provides us with good internal validity but little indication with regard to the motivation of the position of the different actors. The qualitative study, instead, allowed us to look at why some credentials are preferred over other ones. Together, we have reliable results and a plausible explanation.

Our results were obtained in a very specific context (childcare in a Swiss canton) which means that the potential for generalisation of this study is limited. However, we believe that the mechanisms we have uncovered may be relevant for other contexts as well. Particularly, the insight that the perceived value of alternative credentials may not be limited only to a lower

signalling value, but also by assumptions with regard to skills that are mastered, could conceivably exist in other contexts. The fact that the various credentials examined here seem to have a similar signalling value could also be very specific to this context, and further research should compare credentials in different sectors/countries including contexts in which alternative credentials are attributed through less demanding procedures.

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Supplementary material

Quantitative study

1. Number of ratings per block

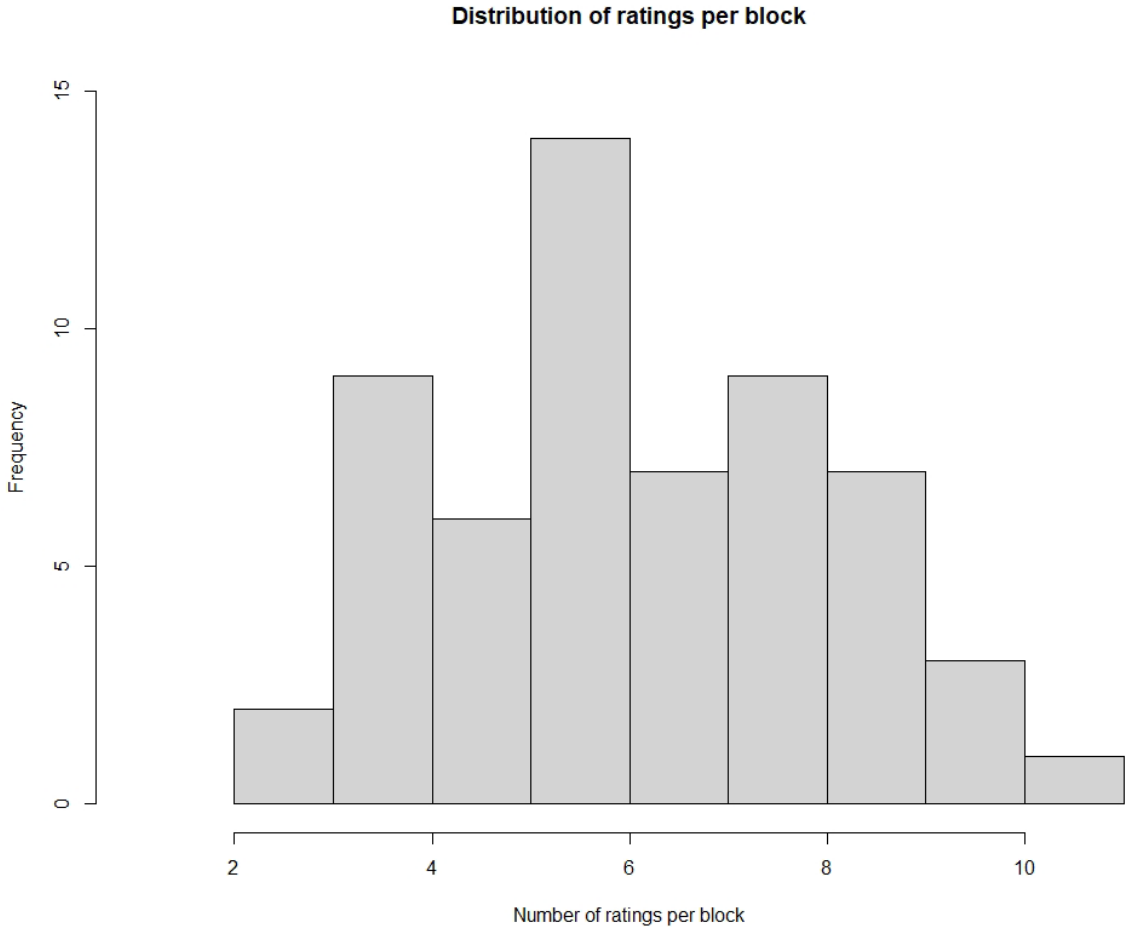


Figure : Distribution of number of ratings per block. Source: Own data.

2. Residuals Plot

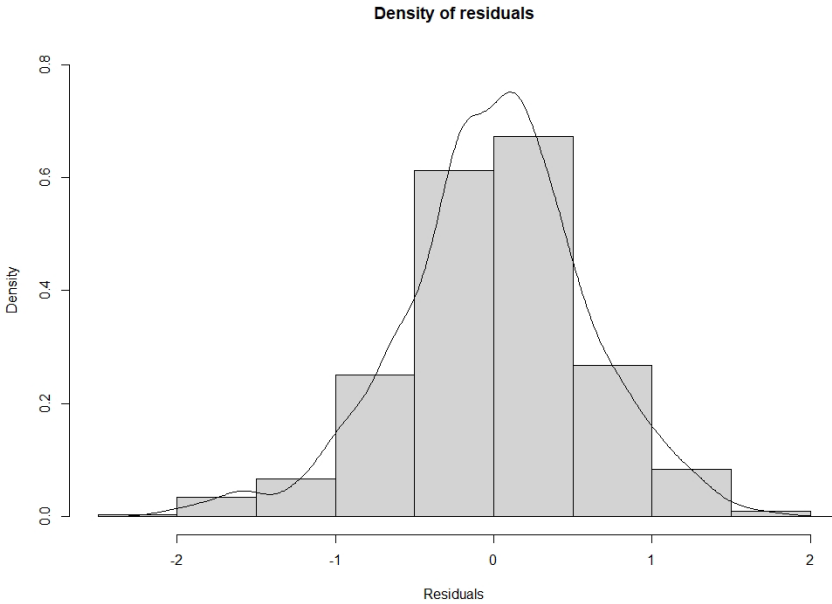


Figure : Distribution of residuals for the model without interaction effects. Source: Own data.

3. Coefficient plot for an ordinal model

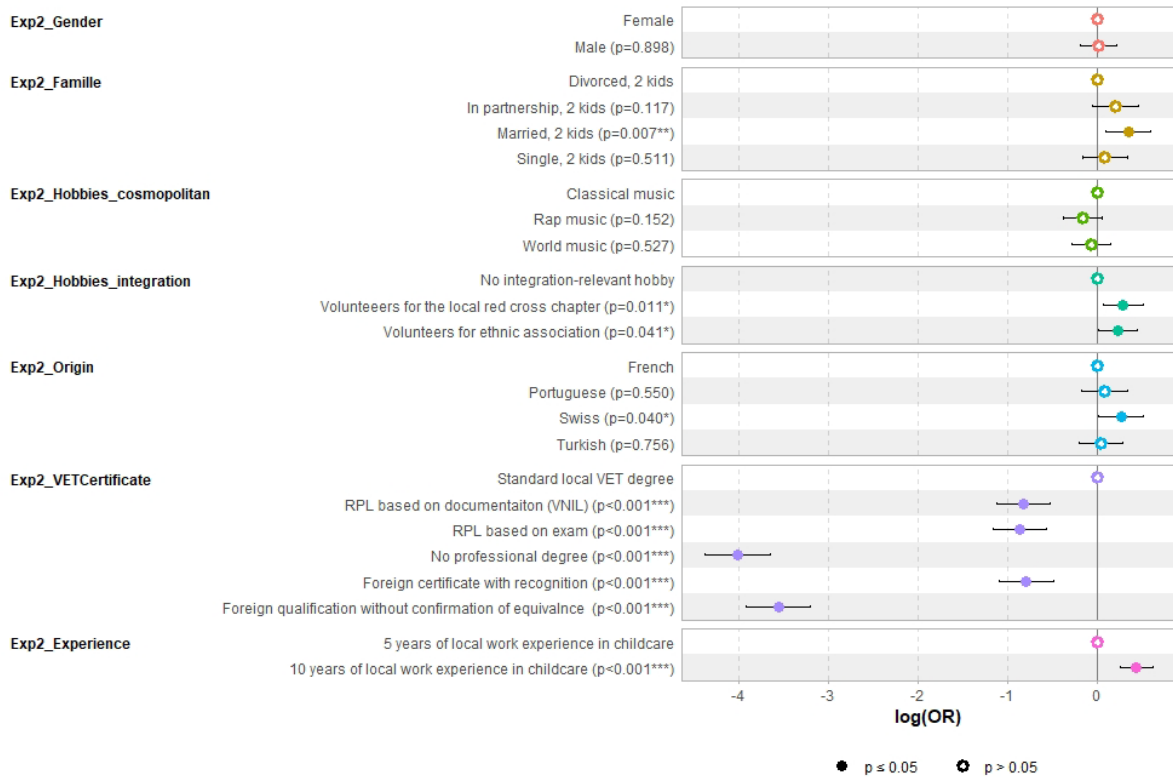


Figure 2 : Coefficient plot for model estimated for ordinal dependent variable. Source. Own data.

4. Coefficient table for both models

Predictors	Exp2_Cal_stand			Exp2_Cal_stand		
	Estimates	CI	p	Estimates	CI	p
(Intercept)	0.39	0.25 – 0.53	<0.001	0.38	0.22 – 0.54	<0.001
Gender [Male]	-0.00	-0.08 – 0.07	0.901	-0.00	-0.07 – 0.07	0.980
Famille [In partnership, 2 kids]	0.07	-0.02 – 0.16	0.126	0.07	-0.02 – 0.16	0.128
Famille [Married, 2 kids]	0.10	0.01 – 0.19	0.033	0.10	0.01 – 0.19	0.038
Famille [Single, 2 kids]	0.00	-0.09 – 0.09	0.994	-0.00	-0.10 – 0.09	0.935
Hobbies_cosmopolitan [Rap music]	-0.05	-0.13 – 0.02	0.175	-0.05	-0.13 – 0.03	0.187
Hobbies_cosmopolitan [World music]	-0.04	-0.11 – 0.04	0.376	-0.03	-0.11 – 0.05	0.444
Hobbies_integration [Volunteers for the local red cross chapter]	0.10	0.02 – 0.17	0.017	0.10	0.02 – 0.17	0.018
Hobbies_integration [Volunteers for ethnic association]	0.08	-0.00 – 0.16	0.055	0.08	-0.00 – 0.15	0.062
Origin [Portuguese]	-0.01	-0.10 – 0.08	0.821	-0.01	-0.10 – 0.08	0.802
Origin [Swiss]	0.07	-0.02 – 0.16	0.148	0.07	-0.02 – 0.16	0.156
Origin [Turkish]	-0.00	-0.09 – 0.09	0.999	-0.00	-0.09 – 0.09	0.957
VETCertificate [RPL through documentation (VNIL)]	-0.25	-0.36 – -0.14	<0.001	-0.18	-0.34 – -0.03	0.019
VETCertificate [RPL through exam]	-0.26	-0.37 – -0.16	<0.001	-0.24	-0.40 – -0.09	0.002
VETCertificate [No professional degree]	-1.44	-1.55 – -1.33	<0.001	-1.51	-1.67 – -1.35	<0.001
VETCertificate [Foreign certificate with recognition]	-0.24	-0.35 – -0.13	<0.001	-0.22	-0.38 – -0.06	0.007
VETCertificate [Foreign certificate without recognition]	-1.30	-1.41 – -1.19	<0.001	-1.24	-1.40 – -1.08	<0.001
Experience [10 years of local work experience in childcare]	0.14	0.07 – 0.20	<0.001	0.17	0.01 – 0.33	0.041

VETCertificate [RPL through documentation (VNIL)] * Experience [10 years of local work experience in childcare]				-0.14	-0.38 – 0.09	0.237
VETCertificate [RPL through exam] * Experience [10 years of local work experience in childcare]				-0.05	-0.29 – 0.19	0.709
VETCertificate [No professional degree] * Experience [10 years of local work experience in childcare]				0.13	-0.10 – 0.37	0.270
VETCertificate [Foreign certificate with recognition] * Experience [10 years of local work experience in childcare]				-0.03	-0.27 – 0.20	0.780
VET Certificate [Foreign certificate without recognition] * Experience [10 years of local work experience in childcare]				-0.11	-0.35 – 0.12	0.348
Random Effects						
σ^2	0.43			0.43		
τ_{00}	0.26 _{Rater}			0.26 _{Rater}		
ICC	0.38			0.38		
N	355 _{Rater}			355 _{Rater}		
Observations	1669			1669		
Marginal R ² / Conditional R ²	0.318 / 0.578			0.320 / 0.577		

Table 3 : Regression coefficients for both models. Reference categories are 5 years of work experience and local CFC. Source: Own Data

5. Coefficient plot for model with interaction effects



Figure 3 : Coefficient plot of the model with interaction effects. Reference categories: Standard vocational diploma and 5 years of work experience. Source: Own data.

Qualitative study

1. List of preparatory interviews

ID	Date	Role	Interviewer(s)
P1	08.12.2020	Director of childcare centre	GB/AA
P2a and P2b	08.01.2021	Heads of cantonal childcare overseeing institutions	GB/AA
P3	18.01.2021	Secretary General of ORTRA santé social Vaud	GB/AA
P4	15.03.2021	Deputy, Cantonal department of post-compulsory education	GB

2. List of qualitative interviews with directors of childcare centres in the canton of Vaud

ID	Date	Interviewer(s)
D1	11.05.2021	

D2	17.05.2021	
D3	20.05.2021	
D4	20.05.2021	
D5	25.05.2021	
D6	26.05.2021	
D7	27.05.2021	
D8	28.05.2021	
D9	01.06.2021	
D10	08.06.2021	
D11	08.06.2021	
D12	09.06.2021	
D13	10.06.2021	
D14	11.06.2021	
D15	16.06.2021	

3. Coding scheme

1	Dipl equal	Believes all the various diplomas are of equal value
2	Other factors	Believes what matters is other factors, like personality, experience
3	Lack theory	Believes that RPL diploma holders lack theoretical knowledge, essential language, discursive skills, basic foundation of the profession
4	Lack CH inst	Believes foreign diploma holders lack knowledge of Swiss institutions and rules
5	Need know foreign	Responded would needs to know the precise content of the foreign degree. Official recognition is not enough
6	SERI lower	SERI recognises at a lower level (e.g. foreign tertiary = Swiss vocational degree)
7	Foreign positive	Being trained abroad is regarded as a positive factor, because staff may bring new ideas, ways of doing things
8	VNIL difficult	VNIL is complex. Putting together a good dossier requires a lot of time and work.