

Early Childhood Teachers' Perception of their Initial Teacher Training Curriculums in Chile

Percepción de las educadoras de párvulos sobre su formación inicial en Chile

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Abstract

Initial early childhood teacher training should integrate elements of responsibility and continuous social change from the perspective of education for sustainable development in democratic society. This approach helps us understand human development, explains the establishment of social connections, and contributes to building fairer communities. It trains committed teachers capable of leading social challenges and creating equitable societies through pedagogical action. This study assesses Chilean early childhood teachers' perceptions of their initial training curriculum and analyzes

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its contribution to improving social cohesion as a basis for democratic societies. An ad-hoc questionnaire, designed within the project aimed in improve the social cohesion in the school, was administered to 462 Chilean kindergarten teachers. K-means cluster analysis was performed, relating the groups to context variables. Results indicated positive perceptions of the initial training, with participants valuing sustainability, social well-being, sense of belonging, and level of participation within training institutions. A positive relationship was found between social cohesion and holding a coordinating position, as well as continuing professional development. There is still a significant gap for improvement in institutional policies, encouraging teacher participation in evaluations, creating incentives that foster genuine social mobility, and enhancing inclusion.

Keywords: Professional identity, initial training, competencies, teacher perception

Resumen

La formación inicial del profesorado de educación infantil debería integrar elementos de responsabilidad y cambio social continuo desde la perspectiva de la educación para el desarrollo sostenible en la sociedad democrática. Este enfoque ayuda a comprender el desarrollo humano, explica el establecimiento de vínculos sociales y contribuye a la construcción de comunidades más justas. Formar docentes comprometidos, capaces de liderar desafíos sociales y crear sociedades equitativas a través de la acción pedagógica. Este estudio evalúa la percepción de docentes de primera infancia en Chile sobre su currículo de formación inicial y analiza su contribución al mejoramiento de la cohesión social como base de las sociedades democráticas. Se administró un cuestionario ad-hoc, diseñado dentro del proyecto destinado a mejorar la cohesión social en la escuela, a 462 educadoras de párvulos chilenas. Se realizó un análisis de conglomerados k-medias, relacionando los grupos con variables de contexto. Existe una percepción positiva de la formación inicial, valorando los participantes la sostenibilidad, el bienestar social, el sentido de pertenencia y el nivel de participación dentro de las instituciones de formación con puntuaciones altas. Se encontró una relación positiva entre la cohesión social y el desempeño de un cargo de coordinación, así como el desarrollo profesional continuo. Existe aún un importante vacío de mejora en las políticas institucionales, que requiere fomentar la participación del profesorado en las evaluaciones, crear incentivos que favorezcan una verdadera movilidad social y potencie la inclusión real.

Palabras clave: Identidad profesional, formación inicial, competencias, percepción docente.

1. INTRODUCTION

Swiftly changing social landscapes have created new demands on education and placed significant pressure on teachers, presenting challenges that societies must address. The dizzying pace of these changes has become the foundation for educational transformations,

impacting schools, learning environments, and teachers. A crucial relationship exists between teachers' performance, new levels of development, advances in knowledge, and their understanding of these dynamics.

A myriad of international proposals has identified a wide range of teacher training programs. Most of these programs focus on curricula content and instructional methods, which are heavily influenced by the rigid frameworks that establish minimum pedagogical requirements (Concha-Díaz, 2023).

Research has identified outcome differences for teachers and students across various training programs (Darling-Hammond, 2021). These findings have sparked reflections on how teachers perceive their professional practice, identification with the profession, and whether they have the necessary competences.

In this regard, Initial Teacher Training (ITT) plays a key role in equipping teachers with skills and knowledge aligned with societal demands. This includes updated curricular content, diverse teaching and learning strategies, and contemporary context-dependent methodologies (García de Fez & Solbes, 2016). Initial training cultivates essential professional attributes, fostering a comprehensive and holistic teacher development (Colomo-Magaña et al., 2021).

Since the 1990s, Chile has implemented a series of programs aimed at improving the school system, with many of these initiatives focusing on enhancing teaching quality. These programs have endorsed proposals that strengthen teacher training, with higher education institutions being responsible for implementation (Concha-Díaz et al., 2022). However, Chile's institutions are heavily influenced by market-driven approaches, leading to a deregulated educational landscape (Bastías-Bastías & Iturra-Herrera, 2022) and raising concerns about training quality in higher education institutions.

Chile has participated in international programs like *Tuning Latin America* and the *Program for Improving Quality and Equity in Higher Education* (Ministry of Education, 2016). The country has also implemented the *Teacher Professional Development System Law*, promoting continuous professional growth (Ministry of Education, 2016). Despite efforts to improve Chile's ITT, the system is criticized for its quality. Evidence suggests a strong relationship between selectivity, academic performance, and socioeconomic status within the country, leading to a significant social, economic, and cultural bias (Basterra et al., 2011). This bias impacts the assessment of teachers' disciplinary knowledge at the beginning of their professional practice (Rufinelli, 2013).

Recently, universities have attempted to address the shortcomings of Chilean teachers; educational centers have endeavored to incorporate curricula, schedules, management strategies, and pedagogical spaces that integrate the experience and adaptability of their training programs, tailoring them to individual needs. These actions closely relate to teachers' perceptions of their classroom competences (Darling-Hammond, 2006). This self-

concept is connected to their professional identity, which is strongly associated with the self, socialization, and aspects of identity, social interaction, and social structure.

Teachers' perception themselves and their impact on classroom improvements play a crucial role in shaping their symbolic structure, including 'how to be', 'how to act', and 'how to interpret their professional role' (Jourdan et al., 2016). This structure develops dynamically, with individuals assigning personal meaning to experiences, forming and reforming their beliefs about the teaching profession.

Teachers start constructing their image as educators during the ITT process through self-reflection, others' perceptions of their work, and analyzing their thoughts, feelings, and actions. As a result, teachers foster a sense of self as educators, which is further deepened through reflection during the first years of professional practice (Blanchard & Procopio, 2021). This identity provides a foundation for teachers to justify, explain, and make sense of themselves in their professional context.

Throughout initial training and their professional career, teachers construct and reconstruct their professional identity, allowing them social legitimacy and recognition as part of a community (Forde, et al., 2006). This requires teachers to acquire fundamental competences specific to the educational level in which they will be working (Concha-Díaz, 2019; OECD, 2017; 2019; 2022). Pegalajar et al. (2022) proposed that approaching teacher training from the perspective of education for sustainable development (González-Such et al., 2022) by integrating elements of social responsibility and continuous social change into the curriculum. Such an approach would provide a framework for understanding human development, explaining the establishment of social connections, and the building fairer communities. It aims to train teachers to become committed citizens who can lead social challenges and create equitable societies through theoretically grounded pedagogical action (Alsina et al., 2019).

However, ensuring continuous ITT improvement requires diverse and informative evaluation strategies that incorporate feedback (Scriven, 1967; Jornet-Meliá, 2012; Jornet-Meliá et al., 2020).

In Chile, little interest exists in understanding the needs and experiences of practicing teachers. This lack of interest stems from the belief that once teachers start practicing, they are no longer relevant to the improvement of ITT (Cisternas, 2011). This notion is contrary to reality. The alignment between the training received and the demands of teaching practice significantly influences the mastery of professional competencies, which is a crucial factor in the subsequent performance of pedagogical tasks (González-Fernández et al., 2019).

Enhancing initial training in Chile requires curricular programs that enable teachers to acquire the foundational skills for professional practice. These programs must address a series of weaknesses, such as the distinction between pedagogical and disciplinary aspects, which

are complemented by theoretical and practical elements. In recent years, this articulation has been decontextualized and disconnected from the school system, as well as the problems, challenges, and realities of the teaching profession (Beyer and Zeichner, 2018).

The development of professional teaching identity is closely tied to the political and socio-cultural context. Alsina *et al.* (2019) indicate that evaluation is essential for understanding which training strategies improve professional competences. Through self-regulation of knowledge, practitioners gain awareness of their professional seeking ways to transform it.

This allows for fluid development of professional identity. Though influenced by various factors, this identity can be rooted in good practice, with each educator feeling they are an agent of change and social transformation. This theoretical understanding highlights key areas for investigation.

The assessment of ITT is based on the framework for improving social cohesion (González-Such *et al.*, 2021). This model consists of eight dimensions (sustainability, sense of belonging, educational inclusion, social well-being, social mobility, personal autonomy, confidence, and participation), which were derived from recommendations by the Conseil de l'Europe (2005), Jornet-Meliá *et al.* (2014), and Jornet-Meliá *et al.* (2020). It aims to identify areas for improvement in higher education systems at national and international levels (González-Such *et al.*, 2021; Sancho-Álvarez *et al.*, 2022). The approach gathers data on the perceptions of key actors regarding the training program's contribution to social cohesion.

Building on Concha-Díaz *et al.* (2022) and Concha-Díaz (2023), this study aims to investigate Chilean early childhood education teachers' perception of their ITT. The research is contextualized within the teachers' administrative and professional context (Darling-Hammond, 2021), focusing on guidelines that outline the required knowledge and skills for pedagogical work. Simultaneously, it explores how professional identity is associated with imposed social models, identifying the appropriation and perception of active competencies and skills within the pedagogical practice (Iranzo-García, *et al.*, 2018).

This study aims to investigate Chilean early childhood educators' perceptions of their initial training using the UNIVECS-PARV-CH evaluation instrument, which was designed within the model for evaluating university degrees to improve social cohesion. The specific goals are the next:

1. To apply the UNIVECS-PARV-CH to determine the perception of Chilean Early Childhood Education and Care (ECEC) teaching staff on elements of the social cohesion model.
2. To judge the reliability and usefulness of the instrument for improving the analysed reality.

3. To determine the influence of different contextual variables on the UNIVECS-PARV-CH scale evaluations, enabling the study of existing associations/differences.
4. To identify perception profiles through k-means cluster analysis and the association between initial training and employability variables.

2. METHOD

This study used an ex post facto correlational, quantitative, and non-experimental research method. It is part of the larger UNIVECS project, which aims to design a model for evaluating university degrees to improve social cohesion. The current study, UNIVECS-PARV-CH, is an adaptation of the UNIVECS project tailored to the Chilean university educational environment. The background of this study is discussed in Concha-Díaz (2023).

Data was collected using an online questionnaire completed by currently employed teaching staff of Chile's early childhood schools. The questionnaire consisted of two parts: descriptive data on the group and the UNIVECS-PARV-CH scale itself. The latter, based on UNIVECS indicators with a four-point Likert scale, is organized into operational dimensions that define the Social Cohesion construct. This construct represents the degree's capacity to guarantee the "sustainability of well-being of all its members, including inclusion, personal autonomy, to promote a sense of belonging, trust, social mobility and responsible participation" (González-Such et al., 2021). The questionnaire compiles the opinions of ECEC teachers in Chile on their ITT through a process resulting from a merger between the state of the question and the proposed evaluation model. Table 1 presents the questionnaire UNIVECS-PARV-CH.

Table 1. Dimensions for assessing the social cohesion of degree programs

Dimensions	Subdimension	COD.
Sustainability	Pedagogical knowledge	SUS1
	Curriculum knowledge	SUS2
		SUS3
Social welfare	Class mastery	SUS4
	Social and subjective value of education	SWF5
		SWF6
Inclusion		SWF7
	Curriculum knowledge	INC8
	Beliefs	INC9
	Reflective and dialogical training	INC10

Personal autonomy	Instrumental skills	PAU11
		PAU12
	Good practice	PAU13
		PAU14
	Interests and expectations	PAU15
	Self-perception of their competences	PAU16
	Satisfaction with university education	PAU17
		PAU18
Sense of belonging	Intrapersonal elements	SBL19
		SBL20
Trust	Instrumental skills	TRS21
	Specific competences of the teaching profession	TRS22
	Intrapersonal elements	TRS23
Social mobility	Employability skills	SMO24
	Teaching collegiality	SMO25
		SMO26
		SMO27
Participation	Beliefs	PAR28
	Employability skills	PAR29
		PAR30

Source: Concha-Díaz (2023). Note: The code for each question will be used from this point onwards. Appendix I presents the items of the complete questionnaire.

2.1. Characteristics of the instrument

The UNVECS-PARV-CH questionnaire is the result of designing a framework for assessing higher education qualifications, carried out in parallel with the Chilean adaptation of the UNIVECS assessment model (González-Such et al., 2022). During the construct and content validation phase, 21 Chilean ECEC teaching experts reviewed the questionnaire (Concha-Díaz, 2023). This validation process improved the relevance and clarity of the construct, adjusted the content and language of the formulations, and enhanced the appropriateness of the format to the group and context.

After administering the questionnaire, reliability and simple statistics were calculated, with all dimensions demonstrating acceptable levels (Table 2). Item homogeneity for each dimension was also calculated, identifying some anomalous items such as SBL19, SMO25, SMO26, and PAR29.

Table 2. Descriptive and reliability statistics

Dimensions UNIVECS CODES	Average by dimension	Standard deviation	Cronbach Alpha	Item code	Average	Std. Dev.	Item-test correlation corrected (alpha)	Item-test correlation corrected (omega)
Sustainability SUS	3.08	0.582	0.838	SUS1	3.16	0.715	0,790	0,793
				SUS2	3.07	0.7	0,804	0,805
				SUS3	3.02	0.71	0,778	0,780
				SUS4	3.04	0.716	0,807	0,807
Social welfare SWF	3.01	0.635	0.729	SWF5	2.71	0.841	0,664	0,665
				SWF6	3.16	0.785	0,623	0,627
				SWF7	3.14	0.736	0,640	0,641
Inclusion INC	2.75	0.662	0.751	INC8	2.3	0.857	0,687	0,690
				INC9	3	0.749	0,703	0,703
				INC10	2.95	0.825	0,609	0,613
Personal autonomy PAU	2.81	0.557	0.875	PAU11	2.4	0.894	0,865	0,868
				PAU12	2.71	0.765	0,851	0,856
				PAU13	2.8	0.723	0,852	0,855
				PAU14	2.92	0.756	0,859	0,862
				PAU15	2.83	0.726	0,854	0,857
				PAU16	3.25	0.669	0,865	0,869
				PAU17	3.14	0.742	0,865	0,868
				PAU18	2.36	0.825	0,861	0,867
Sense of belonging SBL	3.31	0.745	0.742	SBL19	3.33	0.786	0,529	**
				SBL20	3.27	0.884	0,665	**
Trust TRS	2.47	0.556	0.565	TRS21	1.65	0.733	0,537	0,540
				TRS22	3.07	0.719	0,404	0,406
				TRS23	2.7	0.816	0,445	0,445
Social mobility SMO	2.68	0.556	0.636	SMO24	2.07	0.898	0,596	0,634
				SMO25	2.86	0.797	0,495	0,514
				SMO26	2.48	0.833	0,570	0,652
				SMO27	3.31	0.667	0,601	0,602
Participation PAR	3.23	0.558	0.753	PAR28	3.13	0.735	0,606	0,609
				PAR29	3.15	0.692	0,549	0,555
				PAR30	3.39	0.612	0,807	0,808
UNIVECS-PARV-CH	2.91	0.606	0.89*					

Note1: *extracted as alpha for composite measures (dimensions). ** not calculated.

Correlations between the dimensions were moderate and significant at the 0.01 level. The composite reliability of UNIVECS-PARV-CH was 0.89, allowing the instrument score to be used as a reference for further calculations.

2.2. Sample

The sample consisted of 462 ECEC teachers, with 254 (55%) linked to public schools, 59 (12.8%) to private schools, 84 (18.2%) to subsidized schools, 56 (12.1%) to foundation type, and 9 (1.9%) to others. The mean teaching experience was 13.5 years (SD = 8.5), and the mean experience at the previous school was 8 years (SD = 6.5). Regarding center type, 218 (47%) teachers worked in schools, 147 (31%) in kindergartens, 51 (11%) in day-care centers, 40 (8.7%) in other types of centers, and 7 (1.5%) did not mention their place of work. The location of the center was urban for 349 (85.3%) teachers and rural for 68 (14.7%). Two-thirds of the teachers (292, 63.2%) did not participate in teacher evaluation, while 169 (36.6%) did. Finally, 88 (19%) teachers had worked or currently work in higher education institutions.

2.3. Procedure

The survey was created using Google Forms and distributed to Chilean ECEC teachers in 2022 using the snowball sampling technique (Goodman, 1961; Frey, 2018). This method allowed the sample to grow through social and personal networks. The participants responded voluntarily and anonymously, providing informed consent, in accordance with the ethical standards for this type of research, which did not require approval by the institution's ethics committee, in accordance with the current regulations provided by Ley Orgánica 3/2018. Data analysis was performed using open software Jamovi (the Jamovi project, 2024) and SPSS V.28 (IBM, 2021) by license of *Universitat de Valencia*.

2.4. Analyses

Several analyses were conducted to examine the data. Initially, descriptive statistics and reliability coefficients (Cronbach's alpha and McDonald's omega) were calculated (Elosua & Zumbo, 2008). Compound reliability and inter-item correlations were also assessed. Next, One-Way ANOVA analysis of variance and correlations were used to examine the associations and differences between variables. A k-means cluster analysis was also applied to identify subgroups based on scale levels. The elbow method (Syakur et al., 2018; Jornet, et al., 2023), with criteria of parsimony, scalability of resulting profiles, and balanced participant distribution per group ($\geq 5\%$), determined an optimal number of 3 clusters. Finally, Chi-square and Kruskal-Wallis tests were used to examine associations between descriptive variables and belonging in the three identified clusters.

3. RESULTS

The UNIVECS-PARV-CH scores were generally high, as shown in Figure 1 and Table 2. The highest scoring dimensions were SEP ($M=3.31$; $SD=0.75$) and PAR ($M=3.23$; $SD=0.56$), with the highest-rated item being PAR30 ($M=3.39$; $SD=0.61$) from the PAR dimension. Conversely, the lowest-rated dimension was CON ($M=2.47$; $SD=0.56$), and the lowest-rated item was CON21 ($M=1.65$; $SD=0.73$). Items INC8 and APE18 were also among the worst-rated items, but their low scores did not significantly influence their respective dimensions overall.

As described in the methodology, the total score of the UNIVECS-PARV-CH scale was used to analyze its relationship with contextual variables collected in the questionnaire. Table 3 presents the tests of normality for the total score variable.

Table 3. Descriptive statistics and normality fit of the scale

	Average	Std. Dev.	Kolmogorov-Smirnov test fit statistic	p(K-S)	Shapiro-Wilk W test statistic	p(W).
UNIVECS-PARV-CH	2.88	0.471	0.028	0.2	0.995	0.144

The UNIVECS-PARV-CH mean score was 2.88 out of a maximum 4, with a standard deviation of 0.47, resulting in a coefficient of variation of 16%. This allowed the use of the average as a representative value for the group. The Kolmogorov-Smirnov (K-S) test for normality was significant at the 0.2 level, and the Shapiro-Wilk test was significant at the 0.14 level, permitting the assumption of normality.

3.1. Analysis of variance

One-Way ANOVA analysis of variance was conducted to determine if there were statistically significant differences between sample groups based on the descriptive variables and the UNIVECS-PARV-CH total score. Statistically significant differences were found between groups of teachers according to their degree of participation in professional development training ($F=3.471$, $p=0.004$) with a mean effect size ($\eta^2=0.037$). Post-hoc tests showed statistical differences in the UNIVECS-PARV-CH score between the following groups: (1) Those who participate very often ($M=2.93$) and those who have not been able to participate but are interested in doing so ($M=2.72$) and (2) Those who have participated at least once a year ($M=2.95$) and those who have not been able to participate but are interested in doing so ($M=2.72$).

No statistically significant differences in the UNIVECS-PARV-CH total score were found between the other groups.

Statistically significant differences were also found among groups of teachers based on their coordination or organizational position within the workplace ($F=3.182$, $p=0.014$) with a medium-low effect size ($\eta^2=0.027$). Post-hoc tests revealed statistical differences in the UNIVECS-PARV-CH score between two groups: those who currently hold a position ($M=2.95$) and those who do not hold and do not want to hold any position ($M=2.71$).

Regarding participation in teacher evaluation processes, a two-group ANOVA (Student's t-test) was applied, with $p=0.051$, $T=3.845$, and a low effect size ($\eta^2=0.008$). This result is considered a trend for interpretation, without strong effects, and must be proved in future studies with a larger sample. The data showed significant differences between teachers who have participated in teacher evaluation ($M=2.82$) and those who have not ($M=2.91$).

There were no significant differences based on institution type (public-private, primary-children), area (rural-urban), or position in the school.

The correlations between continuous variables, such as *teaching experience during the studying degree* and *working at previous school*, yielded the following results. They were statistically significant at the 0.001 level, with low and negative coefficients (from -0.12 to -0.22) found between *years of general experience* and the dimensions of *Inclusion*, *Personal Autonomy*, *Confidence*, *Social Mobility*, and the *total score of the UNIVECS-PARV-CH* scale; and *years of work in the last educational centre* and the *Inclusion* dimension (Pearson correlation=-0.18)

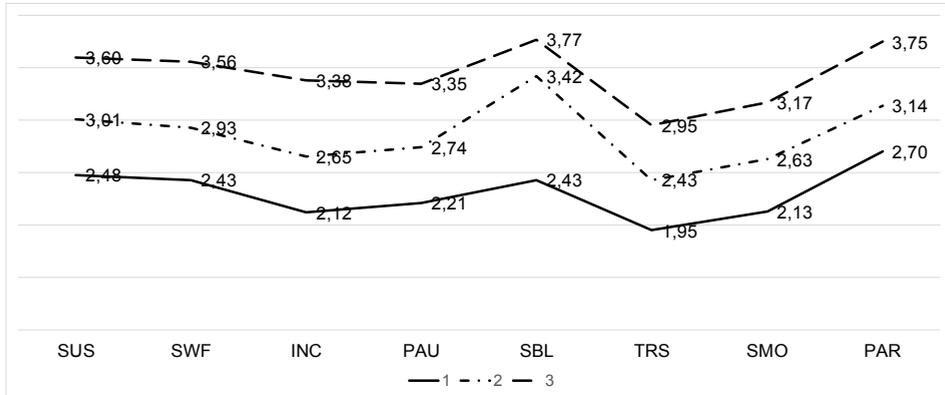
For the remaining cases, the correlations were zero or slightly negative.

3.2. Social Cohesion Perception profiles: k-means clusters.

As mentioned, the optimal number of k-means clusters was determined based on the following criteria, in order of importance: (1) The central scores have statistically significant differences for the clusters marked by the scores of the dimensions of the UNIVECS-PARV-CH scale; (2) The number of subjects in each group is $\geq 5\%$ of the total group; (3) The existing inertia between the squared distances of the subject scores and the group centroid, when compared for solutions of 2 to n clusters, marks an inflection point (*elbow method*) that establishes a cut-off; (4) Profiles can be ordered in a scalar manner for different dimensions of UNIVECS-PARV-CH; and (5) on equal terms of other criteria, the most parsimonious solution is adopted.

With $k=3$ clusters as the optimal solution, the centroid scores for the UNIVECS-PARV-CH eight dimensions were staggered in each cluster (Fig. 1). The distribution of individuals in each cluster, according to the level of scores on the UNIVECS-PARV-CH scale, was as follows: 'low level' ($n=94$), 'middle level' ($n=214$), and 'high level' ($n=149$).

Figure 1. Centroids of final solution for k-means clusters. Note: 1-low level; 2-middle level; 3-high level groups centroids. Graphic created with Excel. Source: own elaboration.



The main characteristics of each group (low, middle and high) were described using contextual and personal variables, applying contrasts for each group of descriptive variables through the non-parametric chi-squared test. Differences between groups were found for two variables: level of participation in continuing professional development and occupation of an organizational or coordinating position in the work institution; in both cases, the contingency coefficient was 0.2. Teachers in the ‘high level’ profile group tend to participate more in continuing professional development and show greater interest in it. Similarly, the ‘high level’ group currently holds or has previously held a position within the institution, while the ‘low level’ group indicates that they ‘would like’ to be able to hold some type of position.

Table 4 presents only significant results. No differences were found between groups marked by type of institution, tenure/seniority, area, participation in university teaching, and teaching evaluation.

Table 4. Description of groups according to UNIVECS-PARV-CH level and χ^2 test

Variables	Conglomerate (level of UNIVECS-PARC-CH)			χ^2	χ^2 test	p
	Low lever	Middle level	High level			
Participation in continuous training	Often 28.7%	Often 27.8%	Often 38.3%			
	2-3 times course 12.8%	2-3 times course 16.5%	2-3 times course 12.1%			
	1 times course 24.5%	1 times course 30.2%	1 times course 34.2%			
	I am interested 24.5%	I am interested 15.6%	I am interested 12.8%	18.331		0.05
	I have no interest 2.1%	I have no interest 2.4%	I have no interest 0.7%			
	Don't know/ don't answer 7.4%	Don't know/ don't answer 7.5%	Don't know/ don't answer 2%			
Organizational or coordinating position	Yes currently 30.9%	Yes currently 37.4%	Yes currently 47%			
	Yes previously 16%	Yes previously 17.8%	Yes previously 21.5%			
	I would like to 30.9%	I would like to 30.4%	I would like to 24.8%	17.459		0.03
	Would not like to 21.3%	Would not like to 13.6%	Would not like to 6.7%			
	Other 1.1%	Other 0.9%				

For continuous variables, like 'years of overall teaching work experience' and 'years of teaching experience in the present/last school', the Kruskal-Wallis test for independent samples was conducted, yielding a significant result for years of overall work experience (K-W=9.236; df=2; p=0.01, significant differences by pairs: low-some level [p=0.002]). The low-level group has a narrower range of years of teaching experience (both Q1-Q3 and overall), clustered around a lower median with non-normal scores at higher levels of teaching experience. The high-level group has a wider range of data and a higher median. There are no differences between groups marked by UNIVECS-PARV-CH for years of experience in the current center or years of university teaching.

4. DISCUSSION AND CONCLUSIONS

This study investigated Chilean Technical and Vocational Education and Training teachers' perceptions of various factors contributing to social cohesion, such as social responsibility, sense of belonging, social links, and commitment to building fairer and more sustainable communities. The research aimed to develop a model for enhancing teacher qualifications based on these social cohesion indicators. By understanding the current situation, the study seeks to identify areas for improvement in initial teacher training programs.

The study used the UNIVECS-PARV-CH evaluation instrument to assess Chilean Early Childhood Education and Care teachers' perceptions of the elements that embrace the social cohesion model. The data were collected using sampling by Snowball sampling, which is a sampling technique that can generate selection bias, but it is useful for locating people who are difficult to reach. According to Kaplan et al. (1987), snowball sampling is a truly multi-purpose technique, since through its use it is possible to make inferences about the social networks involved in the research. It is also effective in obtaining relatively large samples of individuals with traits required in the research framework. By using this technique, it is possible to deepen the knowledge of the peculiarities and traits associated with a previously unknown group of people (Korczak, 1986). The purpose of snowball sampling is to provide both theoretical and quantitative insights into difficult-to-observe phenomena (Kaplan et al., 1987).

The results showed that the objective was adequately gathered, with teachers rating sense of belonging, participation, and social mobility as the most important factors. The highest-rated items were distributed in following order, by dimension:

- 'Sense of belonging' dimension: *Do you feel proud of the educational institution?* where you obtained your academic degree that allows you to practice in Early Childhood Education ($M = 3.33$; $SD=0.787$).

- 'Social mobility' dimension: *Do you think that your degree is a good basis for your career development?* ($M = 3.31$; $SD = 0.669$).
- 'Participation' dimension: *Do you consider that you have the right training to make professional decisions that benefit the entire educational community?* ($M = 3.39$; $SD = 0.61$). As for the lowest rated, we find the following.
- 'Inclusion' dimension: *Within their training, were they trained in how to deal with educational diversity, i.e. teaching students with special educational needs?* ($M = 2.3$; $SD = 0.854$).
- 'Confidence' dimension: *Do you think that in your education you acquired high knowledge and command of a foreign language (ability to communicate in another language)?* ($M = 1.65$; $SD = 0.73$).
- 'Social Mobility' dimension: *In your education and training did you obtain relevant information about applying for scholarships or mobility grants?* ($M = 2.09$; $SD = 0.898$).

As is evident, there are in the same dimensions of the instrument the best and the worst rated items, but in general the scores are high as mentioned above.

The study also aimed to assess the utility of the UNIVECS-PARV-CH instrument for improving the analyzed reality. The results demonstrated that the instrument has a very high level of reliability ($\alpha = 0.89$) and follows a standard distribution. These findings suggest that UNIVECS-PARV-CH is suitable for conducting parametric analyses, touching the second objective of the study.

Specifically, the study examined the influence of various contextual variables on the UNIVECS-PARV-CH scale ratings, revealing several statistically significant associations. First, teachers who participated in continuous training courses demonstrated higher levels of social cohesion compared to those who did not. Second, holding an organizational or coordinating position was positively associated with higher social cohesion scores on the overall UNIVECS-PARV-CH scale. Finally, teachers who participated in teacher evaluations exhibited higher levels of social cohesion than those who did not.

Finally, the study aimed to identify teacher perception profiles and examine the relationship between initial training variables and employability using k-means cluster analysis calculated by using the averages of each dimension of Social Cohesion evaluation model, represented by UNIVECS-PARV-CH scale. The analysis revealed an optimal solution based on three clusters, each one of those presenting distinct trends:

- Teachers with higher levels of social cohesion tend to have a stronger inclination towards professional development throughout their career.
- Higher levels of social cohesion are associated with currently holding or having previously held a leadership position.

- Teachers with higher levels of social cohesion tend to have less overall work experience.

In terms of limitations, there is one limitation of the study to be mentioned, is that some dimensions, such as 'Sense of belonging,' only include two items. Likewise, the participation group is not stratified by zones of Chile, which would be a challenge for the future to achieve. As such, the UNIVECS-PARV-CH instrument can be further refined in future applications.

The findings of this study align with the conclusions of previous research (Concha-Díaz et al., 2024; Murillo & Román, 2010; Poggi, 2014; Lázaro, 2016; UNESCO, 2015), which emphasize that education systems in Latin America and the Caribbean have made progress but must continue striving to ensure, strengthen, and promote quality education for all.

Thus, many challenges remain, such as educational technology (Fernández-Batanero et al., 2022) and foreign language training (Castillo-Paredes et al., 2022), and as reflected in this study's findings, the promotion of student mobility and international projection of degrees.

It is important to note that Chile's initial teacher training model focuses on enhancing pedagogical practice, where teachers' competencies are strengthened based on their specific areas of expertise. However, there is a weak link between public policies and teacher training institutions. While these institutions have made progress in developing new ways of learning and managing knowledge by improving disciplinary, pedagogical, and professional competencies, they have not yet successfully demonstrated their ability to provide truly high-quality education.

Following the line of recommendations, there is still a significant gap for improvement in institutional policies, encouraging teacher participation in evaluations, creating incentives that foster genuine social mobility, and enhancing inclusion. These conclusions align with the empirical study of Collado-Sanchis et al. (2020). Also, Vanegas and Fuentealba (2019) argue that teacher training and development should focus on constructing the trainee teacher's identity. This process should involve conscious reflection on cognitive and affective aspects that extend beyond simply analyzing learning outcomes. Trainee teachers should use their own perceptions in various professional contexts and interactions with peers to shape their identity. The authors emphasize that the development of teacher identity is a complex and multidimensional process, encompassing a series of events that form the foundation of training. As such, it is crucial to analyze and address this process to enhance this critical aspect of a future educator's professional growth.

This same panorama is observed from the results obtained from this study in comparison with other Latin American countries, although among the initial kindergarten teacher training there is great diversity in terms of structure, investment and governance of the

situation in different countries of the region (Concha-Díaz et al., 2021; OECD, 2019). In any case, our position implies recognizing that education policy must be conceived within a broader political framework of social and economic policies, so that it is integrated as one more factor within those used for social transformation aimed at greater levels of equity and well-being (UNESCO, 2015). The initial training of kindergarten teachers needs to be consolidated from different fields; they must be teachers with the ability to master different sciences that are developed in the classroom, such as Psychology, Pedagogy, Sociology, Knowledge of Public Policies, Educational Management, language skills, ICT skills, among other disciplines (Concha-Díaz et al., 2024).

Additional research is necessary to better understand the trend of content integration within initial teacher education, particularly in terms of methodology and assessment (Muñoz-Vidal et al., 2023). Future studies could explore students' sense of meaning about their training and its impact on their subsequent teaching practice. Additionally, investigating the results of the *Inicia* evaluations administered to recent graduates could provide valuable insights and allow for the triangulation of information.

Conflict of interest:

The authors declare the absence of any conflict of interest.

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APPENDIX I.

Complete questionnaire

<i>ITEMS</i>	<i>CODE</i>
1. Do you consider that your training institution provided you with approaches that have enabled you to achieve a mastery of the contents and pedagogical strategies that allow the development of learning competences at early childhood education levels, considering the characteristics of the students?	SUS1
2. Throughout your ITT have you been provided with the skills that enable you to integrate the various educational areas of the curriculum and to apply assessment strategies and instruments according to the objectives to be achieved, recognizing their level of interdependence?	SUS2
3. In your opinion, do you think that in your ITT you were given the tools that allow you to make the corresponding pedagogical decisions and to manage class time in a smooth and organized way?	SUS3
4. Were the capacities to organize and motivate a variety of stimulating learning situations in a variety of contexts provided?	SUS4
5. Do you consider that within your initial training process the institution promoted your personal well-being?	SWF5
6. Do you consider that in his ITT helps to acquire values that allow to differentiate the importance of education in the personal, professional and social spheres?	SWF6
7. Do you think that your education was established based on social factors that favored a positive perception of education?	SWF7
8. Within your training, were you trained in how to deal with educational diversity, i.e. teaching students with special educational needs?	INC8
9. With the training you have obtained, do you consider that you have the capacity to integrate strategies to work in diverse social and cultural contexts?	INC9
10. Do you consider that in your initial training values were integrated that allow you to develop respect for diversity?	INC10
11. Do you think that your ITT developed knowledge related to the use and utilization of ICT related to the field of early childhood education?	PAU11
12. Do you consider that the ITT contributed to improve your innovation in the educational processes of the students?	PAU12

13. Do you think that systematized and experimental strategies were developed within your ITT that contributed to improving your classroom performance?	PAU13
14. Did the initial training gave you the tools to feel prepared for your socio-occupational insertion?	PAU14
15. Do you consider that in your ITT you acquired the level of preparation required to respond to any challenge demanded by society and the teaching profession?	PAU15
16. Do you consider that your training has enabled you to develop your professional commitment and development by establishing collaborative relationships with the educational community where you work?	PAU16
17. Do you think that the ITT is helped you to be able for a constant critical reflection about your own teaching performance?	PAU17
18. In your ITT, did they helped you to train in use ICT and to develop educational innovation processes?	PAU18
19. Are you proud of the educational institution where you obtained your academic degree that allows you to practice Early Childhood Education?	SBL19
20. Do you think that the institution where you obtained your academic degree is respected and socially recognized for its quality?	SBL20
21. Do you think that in your education you acquired a high level of knowledge and proficiency in a foreign language (ability to communicate in another language)?	TRS21
22. Was knowledge developed in relation to the different fields of knowledge of Chilean Early Childhood Education?	TRS22
23. Do you consider that in your training you acquired the ability to manage your behavior and emotions?	TRS23
24. In your training did you obtain relevant information about applying for mobility or scholarship grants?	SMO24
25. Do you consider that your degree has qualified you for different professional positions and functions?	SMO25
26. Do you consider that within your ITT effective channels of collaboration were provided with different socio-professional groups: professional associations and groups, network of practice centers and research centers?	SMO26
27. Do you think that your degree is a good basis for your career development?	SMO27

28. Do you think that in your ITT you acquired skills that allow you to recognize and value each person, connecting permanently with each member of the educational community and establishing feelings of companionship and trust?	PAR28
29. Do you think that in your ITT you were able to develop communication skills for a respectful, cooperative and supportive insertion within a work group?	PAR29
30. Do you feel that you have the right training to make professional decisions that benefit the whole education community?	PAR30

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