

**8<sup>th</sup> ICEEPSY 2017**  
**The International Conference on Education & Educational  
Psychology**

**INITIAL TRAINING OF TEACHERS FOR INCLUSIVE  
EDUCATION IN CHILE**

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*Abstract*

The increasing diversity of students imposes a great challenge for teachers: to create quality educational processes for every student. Since initial training is understood as a significant space for the development of numerous competences, skills and attitudes, it has a core role in this challenge. Nevertheless, there is no systematic study of how the initial training of generalist teachers is approached for inclusive education in Chile. Given this, this article analyzes the results of a national study that examined the characteristics of initial training programs of Elementary Education teachers regarding inclusive education in Chile. To do so, an analysis on the contents of the profiles of graduation and description of every program valid up to 2014 was performed. These programs were analyzed in three central dimensions, each of which related to inclusive education: values and principles of educational inclusion; types or dimensions of diversity and; curricular management for inclusive education. Results show the existence of a great heterogeneity among programs throughout the country, in terms of the sense and intensity given to inclusive education in the different programs. Most of the programs are not offering –at least, not explicitly– formations with an intensive focus on inclusive education and there are not differences between private and public universities.

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**Keywords:** Initial training of teachers; inclusive education; elementary education teachers.



## 1. Introduction

The increasing complexity of teaching institutions, the changes in the competences and skills to be developed within the educational environment and the development of new information technologies are core elements in the configuration of the schools of the XXI century. These traits make an impact in terms of the meaning, mission and characteristics of teaching (Tenti, 2007), which is understood as a maze of knowledge, abilities and skills (Perrenoud, 2004), but also as a framework of needs, cultures, ideas and values owned by teachers regarding society and education (Martínez, 2006). In this process of transformation of schools, there are two elements that seem especially important. First, modern studies have highlighted the importance of teachers for the development of school systems, being now considered as the core actors in the understanding and modification of learning in students, as well as for the improvement of the quality of school systems (De Boer, Pijl, & Minnaert, 2011; OCDE, 2009). Second, several researchers have shown how the teaching profession has been put under strain by the need of teaching within a context of academic, social, cultural and ethnic diversity, this way breaking away from the standardized and monolithic logics used for decades by teachers (Hargreaves, 2010).

Both elements have deepened the discussion regarding the role of teachers in the processes of teaching all students -regardless of their contextual or individual conditions- in non-segregated educational settings and, thus, in the process of 'inclusive education' (Booth & Aincow, 2011; Florian, 2012a). This way, teachers would be the main agents of change of the modern school system. Due to the latter, they would be the actors called to produce the pedagogical, political and institutional changes that would allow designing and developing fair, democratic and schools for all. The chance of carrying out this ethic ideal has been questioned by a number of researchers, which have shown the multiple limitations teachers would face in order to go over the hierarchical structures of the system (Ball, 2010).

In this discussion, the Education for All world movement (UNESCO, 1998), has promoted inclusive education as a way to ensure educational quality for every student. However, turning these ideas into practice has been a complex process that has faced barriers associated with politics, culture and educational practices of each country, especially in developing countries (Eleweke, & Rodda, 2002). One of the obstacles identified in this process highlights practices and training of teachers (Dart, 2006), where it has been established that teachers lack the necessary knowledge, attitude and skills to put into practice the policies that aim to promote inclusive education. Moreover, it has been suggested that teachers would tend to feel unprepared to face the challenges brought by inclusive education (Jordan, Schwartz, & McGhie-Richmond, 2009).

In Chile, the discussion on the role and characteristics of teachers has been intense. One of the topics of this discussion refers to the status of the teaching profession, since in Chile it has always gone between a professional and a technical career (Ávalos, 1994, 2010), which in time has an impact on the discussion on the role of teachers (Hargreaves, 2010). This discussion goes between prescriptive discourses telling teachers what to teach and how (Treviño, Romo, & Godoy, 2013).

These discussions have taken place within the context of an initial training of teachers that features three elements. First, in the last decades, the teacher formation system has focused on university environment, in careers that last up to 4 or 5 years (Montecinos, Walker, & Maldonado, 2015). In addition, the Chilean initial training system has always featured high levels of deregulation and

diversification. Thus, several Chilean researchers have agreed on the fact that the explosive growth of the pedagogy programs in the last 20 years (Cox, Meckes, & Bascopé, 2010) has given a sense of fragility to the system, creating a process of stratification of the quality of formation (Bellei & Valenzuela, 2010). Both elements have raised a strong public agenda of intervention that have aimed to modify and strengthen the quality of initial training of teachers through different programs, incentives and actions, primary through Institutional Improvement Plans (Ávalos, 2010). Meanwhile, an active research agenda, focusing on the level of effectiveness of educational training (Manzi et al., 2011) has been stimulated.

Despite these progresses and understanding the role of the generalist teacher as an essential component in the success of inclusive education (Forlin, & Chambers, 2011), there have been no systematic studies on the elementary teachers' initial training from an inclusive education approach at a national level, which is the objective of this article. To this date, there are only some particular attempts – from an ethnographic approach-, that analyze specific study programs (Jimenez & Montecinos, 2015; Tenorio, 2011; Zapata, 2011). Thus, the objective of this research is to analyze the characteristics of the initial training programs of Elementary Education teachers in Chile, describing how they incorporate (or not) elements related to inclusive education.

## **1.1. Framework**

### **1.1.1. The answer to diversity within educational systems: From exclusion to inclusion**

Since mid-XIX century, western educational systems have used different strategies to face the diversity of the students. These strategies have varied according to their purposes, structures, objectives and level of development of the countries. Schematically, four types of answer can be recognized. This answer has been developed in similar fashion in different regions and countries throughout the world, in order to include people which are cataloged as 'different' or 'part of some minorities' (Fernández Enguita, 2001).

The first type of answer was the exclusion from the school system. In this way, every people that did not belong to any economic, military, or ecclesiastic elite of societies were implicitly or explicitly excluded for being considered 'unproductive' or 'abnormal' (Fernández Enguita, 2001). A second answer, which was especially developed and strengthened during the XX century, recognized and granted the right to education to every person previously excluded (native communities, women, people with disabilities), yet it provided a segregated educational answer to subjects, isolating them in education centers or in differentiated programs (Bourdieu & Passeron, 1984). A third method, a great part of which comes from the second one, focused the educational answer on school integration. This way, it promoted the incorporation of every student within regular school centers. Finally, the inclusive education approach emerged, strongly linked to the development of different international conventions and conferences during the last decades of the previous century (Loreman, Sharma, & Forlin, 2013; UNESCO, 1998) as a response to the exclusion by educational systems of the specific students. Unlike the integration perspective, inclusive education -despite of the multiplicity of meanings and being a highly contested concept (Artile, Kozleski & Waitoller, 2011; Graham, 2006)- here is understood as a process that seeks to restructuring the culture, policies and practices to eliminate the barriers that limit not only the presence, but also the learning and participation of every student within the school system in a non-segregated settings (Ainscow, 2001a; Kim & Lindeberg, 2012), aiming to the access by every student to quality

learnings. This means a non-dichotomous comprehension of the homogeneity / heterogeneity binomial, since every student it is considered to have the right to education. At the same time, however, it is also acknowledged the need of incorporating differences, especially those considered socially unfair, as a relevant element of the formative process. Thus, there is an understanding of equity and quality as being complementary instead of being contradictory, which leads to a redefinition of the role of teachers and their formation needs (Allan, Neilsen-Gatti, & Hudson, 2013).

### **1.1.2. Inclusive education and Initial Training of Teachers. State of the art.**

During the last decades, international literature has gathered important scientific evidence to assert that initial training of teachers plays a significant role in the development and transformation of practices, attitudes, skills and knowledge of teachers (Forlin, 2010; McTighe & Brown, 2005). Moreover, results of several researches have revealed the importance of this process for the development of conceptions and practices that favor inclusive education in future teachers (Blanton, Pugach, & Florian, 2011; Hardman, 2009; Lancaster & Bain, 2007; Loreman et al., 2013).

In general, three main areas in which initial training of teachers may be having influence in the development of conceptions and inclusive practices of future teachers are recognized. On the one hand, several studies have shown how the incorporation of inclusive education programs may impact in the attitudes and values of future teachers. Thus, Sharma, Forlin, and Loreman (2008) show the effect of these programs on the attitudes and concerns on inclusive education of teachers currently in training, while the World Report on Disability (World Health Organization, 2011) has emphasized the need of strengthening the capacities of the teachers to increase the attitudes and the values orientated to educational inclusion.

In addition, studies performed last decade have pointed out the importance of initial training of teachers as a catalyst of certain social and pedagogical skills, such as respect towards others and the capacity to visualizing complex problems. These skills are key aspects to the development of inclusive education (Allan et al., 2013). This way, the programs of initial training for teachers would now have special significance for the development of the skills needed to answer educationally to the existing diversity within the classrooms (Florian, 2012a), a key element to the development of an inclusive pedagogy (Florian, 2012b; Forlin, 2012).

Finally, different studies have shown the need for teachers to develop high curricular and pedagogical competences that allow the strengthening of processes of teaching effectiveness and disposition towards pedagogical innovation (Loreman et al., 2013). In this regard, it has been shown how important it is for teachers' initial training to provide with a deep knowledge of the curricular areas, so that future teachers may develop collaborative skills that will allow them to apply the principles of inclusion (Allan et al., 2013; Rosenberg, Westling, & McLeskey, 2008). This way, it is necessary that programs both train teachers in the curricular knowledge, and allow them to develop skills to design a curricula that meets the needs of all learners by a flexible approach according to the characteristics of students (Alquraini & Gut, 2012; Bateman & Bateman, 2002).

### **1.1.3. Key dimensions of training of teachers for inclusive education**

Even though there is no agreement at international level on the key contents to be incorporated into the initial training of inclusive teachers (Harvey, Yssel, Bauserman, & Merbler, 2010), it is yet possible to recognize three main areas that are necessary to develop inclusive educational practices: i) values and principles of educational inclusion; ii) types or dimensions of diversity and; iii) curricular management for inclusive education. Regarding values and principles of the inclusive education approach, there are a consensus that it is based on the human rights perspective, and especially, on the right to education as the main focus of the pedagogical activity (Florian, 2012b). From this glance, has been developed a detailed framework of values as the basis for inclusive education refers to three key areas (Booth, 2011; Booth & Ainscow, 2011): structures (equality, rights, participation, community, sustainability); relationships (respect for diversity, non-violence, trust, honesty, courage, compassion) and spirit (joy, love/care, optimism/hope and beauty). Thus, inclusive education is closely related to values and principles of democracy and participation of every students in social practices (Arnesen & Allan, 2009; Booth & Ainscow, 2011; Stainback & Stainback, 1999). Moreover, and still related to the notion of human rights, inclusion has been understood as a means for social justice (Polat, 2011), so approaching these aspects in programs of initial training becomes an area of increasing educational and investigative interest (Boylan & Woolsey, 2015; Sleeter, 2001).

Second, it is important to recognize that the paradigm of inclusive education is based on the valuing of several types or dimensions of diversity, assuming that each human being is different from another in terms of race, ethnic identity, gender, sexuality, religion, language, skills, among others. This way, the value of diversity within the educative process is recognized; it is fundamentally based on the possibility of learning, change and improvement offered by school centers by demanding flexibility to the teaching processes according to the characteristics of each student (Ainscow, Booth, & Dyson, 2006; Stainback & Stainback, 1999). It is obvious that this means leaving behind a one-dimensional conception of diversity (Polat, 2011; Sapon-Shevin, 2014), by adopting an approach that highlights the relational nature of inequities and characteristics of students, the context in which these are developed and the forms of answers of educational systems (Florian, 2012a). Consequently, approaching initial training of teachers from a view that privileges comprehension of the different dimensions of diversity (Arnesen & Allan, 2009) is now a fundamental aspect, given the existence of evidence pointing out that inclusive educational practices and the effectiveness of teaching depends upon what teachers believe about the nature of differences and about their own role and responsibility in their work with every student (Jordan et al., 2009).

Finally, a third key element for inclusive education can be recognized: curricular management. From the inclusive paradigm, different authors suggest that the creation of contexts and learning processes must be guided by a comprehensive common curriculum for every student, through a curricular easing. This necessarily means a flexible teaching, understood as 'the diversification of teaching processes that allow every student to achieve the goals established by the curriculum' (Martín & Mauri, 1996:14). Thus, the flexibilization of teaching methods is formulated as the guiding principle of the educational answer to diversity (Ainscow, 2001b) in order to reduce barriers, as well as optimize levels of challenge and support, to meet the needs of all learners from the start, instead of making later adaptations (Rose & Strangman, 2007). Likewise, several studies have pointed out the need for future teachers to

learn and develop strategies to communicate and work in collaboration with other teachers (Brownell, Ross, Colón, & McCallum, 2005; Friend & Bursuck, 2012). In this regard, collaboration becomes a requirement to achieve inclusive education (Alquraini & Gut, 2012; Florian, 2012a, 2012b). Finally, it is important to point out that teachers need to work in collaboration with the families of their students in order to satisfy the educational needs of each one of them (Beneke & Cheatham, 2015; Turnbull, Turnbull, Erwin, Soodak, & Shogren, 2015). For this reason, it is of the utmost importance that training programs for teachers allow and promote the development of knowledge, skills and attitudes that favor co-teaching and collaboration, aiming to diversify and relax teaching processes (Allan et al., 2013; Harvey et al., 2010)

## **2. Problem Statement**

|There is no systematic study of how the initial training of generalist teachers is approached for inclusive education. This training is essential to face the challenges of student's diversity|

## **3. Research Questions**

|Does the initial training of generalist teachers in Chile include in its programs elements related to inclusive education and which dimensions associated with inclusive education are emphasized these programs?|

## **4. Purpose of the Study**

|The objective of this research is to analyze the characteristics of the initial training programs of Elementary Education teachers in Chile, describing how they incorporate (or not) elements related to inclusive education|

## **5. Research Methods**

|In order to study the characteristics and conceptions about inclusive education underlying in the curriculum of Initial Training of Teachers of the Chilean higher education, a mixed methodology was used (Greene, Caracelli, & Graham, 1989; Tashakkori & Teddlie, 1998), which complemented the use and analysis of quantitative data with the analysis and codification of the descriptions of the Pedagogy on Elementary Education programs. Every university that by March 2015 was teaching at least one Pedagogy on Elementary Education, already current by year 2014 was current and that had new students for the 2015 period, according to the National Education Council and the Higher Education Information Service was studied, including 45 programs for the analysis of the system<sup>1</sup>.

With the purpose to study the characteristics and the intensity of the use of key elements related to inclusive education in each of the selected programs, an analysis on the contents of the profiles and descriptions was performed.

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<sup>1</sup> In four cases, the decision was to study differentially the programs taught by the same university, considering the differences in sense, approach and mission of each of these programs.

This codification was designed by two researchers through independent sessions ( $\alpha = .82$ ). Later on, the differences were discussed and recoded through three work-sessions. Finally, 22 concepts were identified, which were consequently grouped in three dimensions: i) values and principles; ii) dimensions or types of the diversity; iii) curricular management for the inclusive education.

To analyze the distribution of the mentions and the intensity of inclusive education within the different programs, a univariate and bivariate descriptive analysis was performed. Thus, the goal was to recognize the concept of inclusive education present in the Elementary Education programs as a whole<sup>2</sup>.

Finally, a Multiple Correspondence Analysis (MCA), which allows summarize a large amount of categorical or ordinal data into two dimensions was performed. The graphic layout of the data allows to identify associations between the elements studied considering the proximity or distance between them (Gatrell, Popay, & Thomas, 2004). This allowed the graphic identification of the characteristics of the programs that are more associated to certain elements of inclusive education, according to the proximity of these categories in a cartesian plane. The advantage of this method is the condensation of multiple variables and the facilitation of the interpretation and understanding of the association between data, especially regarding exploratory studies where there are no previous hypothesis on the behavior of the variables (Greenacre, 2007).

## 6. Findings

The analysis shows 268 mentions related to the inclusion in the profiles of graduation and descriptions of programs of Elementary Education, which means an average of 5.8 mentions per program. From the whole universe of mentions, 44.6% (N=118) are the declared principles and values, 35.6% (N=94) were codified in the area of dimensions or types of diversity and 21.2% (N=56) were codified in curricular management for inclusive education. Table 1 shows all three dimensions with their respective category, and the amount and percentage of mentions of each one of them.

**Table 01.** Amount and percentage of mentions per dimensions and categories

<b>Dimension</b>	<b>Categories</b>	<b>Mentions</b>	<b>%</b>
I) Declared principles and values	Diversity	35	13.06
	Comprehensive Training	24	8.96
	Tolerance	15	5.60
	Inclusion	8	2.99
	Social Responsibility	7	2.61
	Human Rights	5	1.87
	Democracy	5	1.87
	Participation	5	1.87
	Equity	4	1.49
	Pluralism	4	1.49
	Social Justice	3	1.12
	Solidarity	1	0.37
	Freedom	1	0.37
Generosity	1	0.37	

<sup>2</sup> An analysis on the link between different institutional characteristics and the intensity of the elements related to inclusion was performed, through the use of median tests and correlations analysis. Moreover, linear regressions analyses (OLS) were performed, but they were not included, given the low consistency of models and the instability of the data.

II) Types of diversity	Context consideration	28	10.45
	Educational needs consideration	19	7.09
	Gender consideration	16	5.97
	Ethnicity consideration	16	5.97
	Consideration of every student	15	5.60
III) Curricular management for inclusion	Professional collaboration	27	10.07
	Adaptive teaching	20	7.46
	Collaboration with family and community	9	3.36
<b>Total</b>		268	100

As shown in Table 1, in the principles and values dimension the descriptions of programs and profiles of graduation expose more often the goal of promoting the training of teachers capable of taking care of, answering or acknowledging the diversity within the classroom as well as the training of teachers that promote the integral development of the students, dealing with different aspects of the cognitive, affective, social, physical and moral development. It is also worth highlighting the high frequency of mentions related to the intention of training teachers that are ‘tolerant’ to individual and contextual differences among students (which is closer to the paradigm of integration) and the low frequency of principles and values whose foundations are the right to education and social justice approaches, which only obtain three mentions. In the types of diversity dimension, it is remarkable the high frequency of mentions related to the training of teachers that take into consideration the contextual variable of their future students in the teaching – learning process as well as their educational needs. On the other hand, there is a certain frequency of the elements of diversity associated to the ethnic or cultural background, yet they are mentioned in programs from northern and southern Chile (where exists a higher amount of migrants and ethnic background), which would be a symptom that multiculturalism and ethnicity are not yet fully incorporated into the programs of initial training for teachers. Finally, regarding curricular management, it is possible to highlight the intention of training teachers capable of working in collaboration with other professionals, and in a lesser degree, capable of working in collaboration with families and community networks, key aspects for the development of inclusion.

Now, as shown on Table 2, there are programs with 30 mentions (Universidad Central) and programs with no mention (Universidad de Magallanes and Universidad Arturo Prat with its regular program)<sup>3</sup>, which is a sign of the heterogeneity of the distribution of the amount of mentions. In this regard, it is evident the fact that two programs have no mention on diversity in their descriptions, while another 11 programs mention it once or twice only. This could be an indicator that a significant part of the educational supply available (roughly 40% of the programs) provides a training that does not specifically stress inclusive education.

**Table 02.** Frequency of mentions per University regarding inclusive education

Programs	N	Programs	N
Universidad Central	30	Universidad Los Leones	4
Universidad Arturo Prat (Interculturalism)	1	Universidad de las Américas	3

<sup>3</sup> Despite being a differentiated analytical construct, there was a high empiric correlation in every case (above 0.5), which could be an indicator of the existence of general factors related to the incorporation of inclusion in the different dimensions of programs.



	8		
Universidad Academia de Humanismo Cristiano	1	Universidad de Concepción	3
	7		
Universidad Diego Portales	1	Universidad Finis Terrae	3
	4		
Pontificia Universidad Católica de Valparaíso	1	Universidad Bolivariana	3
	2		
Universidad de Atacama	1	Universidad Chileno-Británica de Cultura	3
	1		
Universidad Andrés Bello	1	Universidad Arcis	3
	0		
Universidad del Desarrollo	1	Universidad Adventista de Chile	3
	0		
Universidad Ciencias de la Informática	9	Universidad de Los Andes	3
Pontificia Universidad Católica de Chile (Regular)	8	Universidad Alberto Hurtado	3
Universidad de Tarapacá	8	Universidad Gabriela Mistral	2
Universidad Bernardo O'Higgins	8	Universidad Católica del Norte	2
Universidad de La República	7	Universidad de Antofagasta	2
Universidad Sek		Universidad Metropolitana de Ciencias de la Educación	2
	7		
Universidad del Bío-Bío	6	Universidad de Playa Ancha	2
Universidad Autónoma		Universidad Católica Cardenal Raúl Silva Henríquez	2
	6		
Pontificia Universidad Católica de Chile (Villarrica)	5	Universidad Santo Tomás	2
Universidad San Sebastián		Universidad Católica de Temuco (Interculturalism)	2
	5		
Universidad de Viña Del Mar:	5	Universidad de Santiago de Chile	1
Universidad Pedro de Valdivia (Regular)	5	Universidad Austral	1
Universidad Católica de Temuco		Universidad Católica de la Santísima Concepción	1
	5		
Universidad de La Serena	4	Universidad de Magallanes	0
Universidad Pedro de Valdivia (TDA mention)	4	Universidad Arturo Prat (Regular)	0
Universidad Católica del Maule	4		

In general, two types of factor can be recognized: i) those related to the characteristics of the university and ii) those related to the characteristics of the study program.

Regarding the first group of factors, the variables related to the type of university, the state of accreditation and the percentage of postgraduate teachers were studied (comparing universities with high or low percentages of postgraduate teachers). In respect of the characteristics related to Elementary Education Programs, an analysis was made on the characteristics of the programs that were taught, were these on a daily or evening basis, the presence of these programs within the Chilean boundaries, the duration of daily programs and the average entrance scores of students (comparing programs with higher and lower scores). Table 3 shows these characteristics and the median of mentions according to each of the attributes that are present.

**Table 03.** Average of mentions regarding educational inclusion according to the characteristics of University and programs

	Mentions
<b>Type of University</b>	
State Univ. part of CRUCH <sup>4</sup>	4,9
Private Univ. part of CRUCH	4,3
Private Univ. non part of CRUCH	6,7
<b>Institutional Accreditation</b>	
Accredited Institution	6,1
Non Accredited Institution	4,6
<b>Postgraduate Teachers</b>	
Universities with lower postgraduate teachers %	5.2
Universities with higher postgraduate teachers %	4.4
<b>Type of conducted program</b>	
Daily only	4.8*
Daily and evening	7.6*
<b>Location</b>	
Metropolitan Region	7,9
Other regions	4,8
Santiago and other regions	4,4
<b>Duration</b>	
8 semesters	5,7
9 semesters	7,4
10 semesters	4,8
<b>PSU score for 2014 entrance</b>	
Universities with lower average	9.8
Universities with higher average.	5.4

Note: \*  $p \leq 0.1$ , from SIES<sup>5</sup> and CNED<sup>6</sup> data.

As Table 3 shows, in most of the analyzed variables there are no statistically significant differences, at university level and at program level. This could be indicating that the existent heterogeneity is explained by another factor, being the sole exception the differences present among universities that teach daily programs only and those that along these daily programs also teach evening programs. Even though, there is no evidence that allows a deeper work into a hypothesis regarding these matters.

As a way to explore association between concepts alluding to inclusive education, Multiple Correspondence Analysis (MCA) was performed. The variables used correspond to those found in Table 17. In addition, a categorical variable indicating the institutional classification of each university was included. Thus, the MCA allows us to explore associations in two ways: i) association between concepts of inclusive education and ii) the association of these concepts with different types of universities.

<sup>4</sup> CRUCH: Rector's Council of Chilean Universities. Entity formed by the rectors of the 25 state universities in Chile (TN).

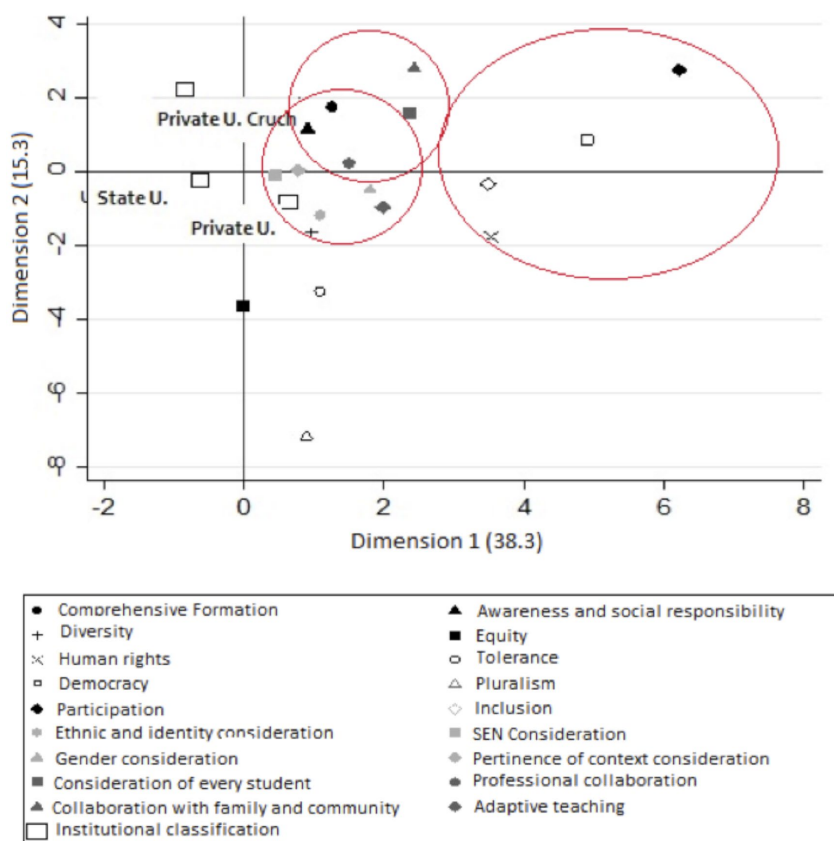
<sup>5</sup> SIES: Higher Education Information Service. Institution dependent from the Ministry of Education (MINEDUC). Its main goal is the identification, gathering and diffusion of the data necessary for the proper functioning of the public education system (TN).

<sup>6</sup> CNED: National Council of Education. An organism whose mission is to protect and promote the quality of school and higher education.

<sup>7</sup> From the total of concepts of Table 1, and given that their low variability prevented a correct analysis, concepts of Social Justice, Solidarity, Freedom and Generosity were left out.

The designing of the graphic took dichotomous categories for each concept into consideration. In MCA, these categories show the absence or presence<sup>8</sup> of the characteristic in each of the programs<sup>9</sup>. The results of the association between the different concepts of inclusive education and the different types of universities are shown in Figure 1. There are some considerations that are relevant for the interpretation of the graph. First, the percentages located along both axes indicate the total variance explained by the attributes in the distinction that is made regarding the incorporation of elements of inclusive education according to type of university. Second, the distance of the points with respect to the origin gives account of the independence of the variables. That is, points located at the ends and distanced from each other account for the association between the variables, and on the contrary, a concentrated cloud of points near the origin indicates that there is no discrimination between attributes according to types of universities. Thirdly, the proximity of the attributes to each other and to the type of university suggests a clustering of this set of variables, suggesting an association between both types of data.

With few exceptions, the plotted points tend to be concentrated in the center, indicating some independence between the concepts of inclusive education and the types of universities. Additionally, the percentage of total inertia, computed from the sum of the percentage of inertia explained by each dimension (38.3% and 15.3%), confirming the independence between different concepts in the programs.



**Figure 01.** Multiple Correspondence Analysis of concepts referring inclusive education in Elementary Education Programs

<sup>8</sup> In general, an inertia percentage below 60% is considered a not very explanatory model of the association of variables included in the map.

<sup>9</sup> Given the purposes of this analysis, Graphic 1 shows only the categories of presence of the characteristics in each program. Thus, each concept is represented by a point in the plane, individualized by a symbol and a different tonality.

Even though, it is possible to identify three relevant clusters: one located in the superior right quadrant, is composed by four concepts, all of them grouped in the principles and values dimension: participation, democracy, human rights and inclusion. A second cluster, located in superior axis, yet close to horizontal cut-off point, groups five concepts in a less sharp fashion: comprehensive training, social awareness, professional collaboration, special education needs consideration and context consideration. The last three concepts are also present in the last identifiable cluster, which groups concepts such as ethnic consideration, gender consideration, adaptive teaching and diversity, all of them located in the inferior right quadrant. In the last two cases, clusters include concepts from parts of diversity and curricular management of inclusion dimensions, but not from the principles and values dimension.

Finally, and regarding the relation between universities and concepts, there is a soft association between a type of university and the concepts that give form to their programs when the first ones are located near the line between the second ones and the point of origin. In this way, we can only visualize a certain association with the concepts of diversity from the principles and values dimension within private universities; ethnic consideration and identity within the parts of diversity dimension; and in a lesser degree, with adaptive teaching, from the curricular management dimension. |

## 7. Conclusion

|This research aimed to characterize the Initial Training of Teachers offer in Chile from the inclusive education approach. The results have shown two major conclusions. On one hand, it is obvious that the Chilean system of initial training possesses a high heterogeneity in terms of the sense and intensity given to inclusive education in the different programs; in this respect, there is no common or shared framework. This high level of diversity may be consequence derived from the high level of deregulation and marketization of the university and the Chilean formation system of teachers, and from the differentiated incorporation of curricular guidelines regarding inclusive education which are developed in the programs (Cox et al., 2010; Manzi et al., 2011), which have led to the incorporation (or not) by every institution of elements of inclusive education in the training process of future teachers.

In addition to the above, it is possible to see that most of the programs of initial training of Elementary Education teachers are not offering –at least, not explicitly- a formation with an intensive focus on inclusive education, so there is a small amount of institutions that have incorporated into their descriptions a relevant set of elements referring the subject. This could be one of the causes why Chilean on duty teachers report on a regular basis feeling unprepared to provide quality educational answers to all of their students (Jordan et al., 2009), as well as why the education of some groups of students with specific characteristics is considered a ground for specialized teachers (Florian, 2012a) instead of a ground for every teacher. This is a key aspect, since it may be reflecting a disconnection between formative processes and the daily challenges of teachers, as resembled by previous studies (Montecinos et al., 2015).

This set of results delivers challenges to educational policies and to educational research in Chile. Regarding the former, the results of this research call for the construction of an Initial Training of Teachers that is a contribution to inclusive education, incorporating to the professional development, in an explicit and systematic fashion, elements that allow teachers to develop competences to provide

learning opportunities to every student (Booth & Ainscow, 2011). This way, training processes must provide opportunities for future teachers to develop attitudes, principles and values that are the foundations of inclusive education. The main challenge for domestic policies of initial training, in the short and medium term, is the creation of guidelines, programs and policies that promote these processes.

Moreover, this analysis provides with a series of challenges for educational research. First, it is necessary to understand more clearly the possible causes why some programs stress or not certain elements in reference with inclusive education. This understanding can be achieved by studying not only structural, but also possible cultural or organizational factors that promote (or hinder) incorporation of inclusive education into Initial Training of Teachers. Second, future studies that go deeper into pedagogy programs (their curriculum and subjects) are required, in order to obtain a deeper knowledge on how inclusive education is taught, especially in those programs with high levels of application of inclusive education. Finally, it is necessary to know how the different elements declared by study programs result in learning and actions by teachers within their professional career. In this regard, some preliminary studies (Jimenez & Montecinos, 2015) have revealed the existence of relevant gaps between the provided learning and the professional practice exercised in terms of inclusive education, which may indicate the existence of another set of relevant factors which may have an impact on the very activity of the teacher.

Despite these contributions, this research has some limitations that must be addressed in futures studies. First, to describe the elements of inclusive education that are presents in initial training programs of Elementary Education, we focused in elements that are in the description of the programs or profiles of graduation, which of course, does not correspond to a comprehensive view of the programs themselves and the teaching-learning processes that are developed. Other research has advanced in the understanding of inclusive education from this perspective, focusing on the study of curricula and initial training courses in Chile (Jiménez and Montecinos, 2015, Tenorio, 2011) as in other countries (Allday , Neilsen-Gatti & Hudson, 2013; Florian, Young & Rouse, 2010). A second limitation of the study is that it does not compare the explicit elements of inclusive education embodied in the description of its programs with what students actually learn and put into practice. For this reasons, a comparative study between Chile and countries with different higher education configuration are desirable in the future.

## Acknowledgments

[This study was carried out thanks to the support of the Universidad Diego Portales, Chile, through its Call for Research Support (Seed Project)]

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