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Contents

"Service learning as a socio-educative strategy of cooperation and learning"

El aprendizaje-servicio como estrategia de cooperación y formación socio educativa

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Dr. Fernando González Alonso, Universidad Pontificia de Salamanca (España)
Dra. Azucena Ochoa Cervantes, Universidad Autónoma de Querétaro (México)
Dr. José Luis Guzón Nestar, Universidad Complutense de Madrid and
Universidad Pontificia de Salamanca (España)

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Service-learning

Service-learning (SL) is an innovative educational practice, a tool of social transformation that combines learning by doing while helping others. It is an active methodology that encourages change while consolidating learning in the encounter with the other, in sharing ideas, thoughts, feelings and knowing how to be supportive, empathetic and simple to improve the reality, produce knowledge, change systems and benefit the society.

Editorial

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From the 19th century, the various postulates of the active school mentioned that learning is built through experience as a mechanism that allows students to reflect and construct knowledge. It involves pedagogical proposals that combine experience, action and learning to achieve the cognitive, affective-social and political development of students.

Service-learning (SL) is a project where students are the agents that help the community in their needs by planning and improving their own learning. SL is the expression of experience-based learning and community service with institutional and network support involved. SL project responds to the reality analyzed with the design, execution and evaluation of the project, positioning students as people able to transform their environment from the formation of citizens and the implementation of values according to the region and the objectives stated. The active participation of students in SL experiences encourages their learning, involvement, prominence and awareness in the socio-educational needs detected in the community.

The Monographic Section of this issue of "Alteridad" presents Service-learning as a cooperation strategy and socio-educational training, the results of experiences and studies that account for the importance, interest and current status of SL as a pedagogical and solidarity strategy.

The first article entitled "The service learning values map", provides a general framework for observing the power of this methodology in the field of moral formation. The authors perform a comprehensive review of the values that trigger SL. To make this proposal, they relate the value learning levels presented in this practice. The end result is a map of values that has at least three purposes: one is to make visible the diversity of values that activate beyond those widely recognized as cooperation or altruism; the second is to raise awareness among about the moral power of this practice and the third is to orient the objectives of tasks, in order to increase the formative quality of this experience.

The second article titled "Community assessment in the face of climatic disasters: A Service-Learning experience" describes an experience of SL carried out at the University of Atacama (Chile), with students of the eighth semester of the Psychology career, in order to attend a community that suffered the effects of a hydrometeorological event. SL was carried out during the subject Psychosocial Diagnosis. The article presents a clear relationship between curricular learning and actual needs, showing that not only practical and theoretical knowledge were improved, but also professional skills were acquired in a real context. Additionally, it shows the opportunity of interdis-

ciplinary work, favoring pedagogical practices according to a university formation that must answer the increasingly complex problems.

The third article accounts "The contributions of Service-Learning in the teaching of Sociology for future teachers" based on the evaluation of a project of educational innovation carried out at the Faculty of Education of the University of Castilla La Mancha (UCLM), it deepens students' perception of the usefulness of SL in academic-competency learning and the experiences lived in real school settings where they have observed and applied their theoretical learning. The assessment of the acquisition of specific competences of the Degree, the williness and performance to understand social problems that they will face in their professional future, as well as the feelings and emotions experienced are some of the objectives of this paper. This is an empirical study of mixed methodology, which reveals the high motivation of students in participating in the acquisition of professional and personal competences and training performance of future teachers.

The Chilean authors present a very novel approach titled "Service-learning methodology in an integrated cost and marketing project", which highlights the need to go beyond traditional teaching processes. Hence, they propose SL as a pedagogical method that integrates students' learning and community service into a real environment. The main purpose of this study is to describe the experience of designing, implementing and managing the methodology of SL in an integrated project that covers the subjects of costs and marketing in a business program at a state university in central-southern Chile. The work is based on the systematization of the SL experience, based on three implementation phases. The process of designing, implementing and managing the project could serve as a guide for teachers or institutions interested in the innovation of teaching and learning process.

Argentine authors give us a vision of "Service- learning enactment in International Baccalaureate Schools in Argentina" through a qualitative study, which combines interviews, documentary analysis and observations, they study the various senses of the activities that students, teachers and managers carry out for the CAS (Creativity, Action and Service) component of the Diploma Program. The results of the research indicate different conclusions when it comes to private schools associated with other public schools in the middle and middle-high sectors. The article shows the importance of institutional actors in the promotion of these projects, where young people are the protagonists, and the implementation will depend on adults.

Thus, with the articles presented in this thematic issue, it is clear not only the relevance of this methodology but the need to implement it at different school levels to ensure learning and to train people in a better way.

In the Miscellaneous Section, the articles deal with various topics related to the teaching-learning process, opening discussions and proposing alternatives that respond to the new challenges of students, parents, educational institutions and society in general. The article titled "Research and learning: Challenges in Latin America towards 2030" by Aldana, Vallejo and Isea refers to an education different from the traditional model. From a bibliographic review, the author argues that research is a key factor for training, not only by systematizing research proposals and generating new knowledge, but because it facilitates lifelong learning; the autor also identifies factors relevant to a cross-cutting training process aimed at achieving the Sustainable Development Goals that will establish in Latin American level by 2030; and for the same reason, it is a pending work.

The article by Maquera-Maquera, Bermejo-Paredes, and Olivera-Condori, "Family-classroom intervention for the development of graphomotor skills" constitutes a significant contribution to the initial level of education. In order to respond to the demands of parents and the expectations of society, it opens up the discussion, on the one hand, of the relationship between "fine motor" and

"graphomotor ability"; and on the other hand, the exchange of experiences and knowledge between teachers and parents. It is a challenge for both early education teachers and parents, who are responsible for childhood education, to go beyond their beliefs and transform initial education practices.

Oyarzún-Maldonado and Soto-González in the article titled "The inadmissibility of standardizing the teaching work: An analysis from Chile" present a relevant topic by placing a critical and necessary topic for any context. In the same direction as those seeking to improve educational equity and quality from the proposal presented by Mintzberg, they analyze the relevance of the different standardization mechanisms of the processes and teaching-learning outcomes. They consider that the hegemonic organizational behavior theory is insufficient for a comprehensive evaluation, and discuss the relevance of other mechanisms in which prevail the development of skills, collaborative work, training in socio-educational values, among others.

The article titled "Inclusive training of elementary teachers in three Chilean regions" written by Valdés-Pino, Calvo-Álvarez and Martínez-Abad, addresses an interesting and current topic such as inclusive education and the consequent need for teacher training as the main mediators of the teaching-learning process. The article aims to analyze and identify these inclusion training needs from the teachers' vision, evidencing the need for training particularly in methodological and strategic aspects that allow to promote a person-centered learning teaching process, the design of individual educational plans, self-learning, collaborative work and the use of virtual spaces, and the importance of human resources and interdisciplinary and collaborative work.

The Miscellaneous Section of this issue includes the article "Gender Perspective in adolescents from Superior Basic Education and High School" written by Vizuete-Salazar and Lárez-Lárez. A relevant topic to discuss in the school context. It is normal for adolescents to relate according to their cultural concepts or stereotypes learned at home or in the environment, in which inequality, discrimination and violence are evident. The article presents students' perception of gender equality, showing that while there is an adaptive attitude that positively affects equality and equity, stereotypical attitudes remain. The authors conclude that the school environment is an ideal space to eliminate such stereotypes. The reader is offered the possibility of analyzing it not only in other contexts, but also in other problems and issues that need to be transformed.

The Covid-19 pandemic led to the suspension of classes and the closure of universities, colleges and schools around the world. Due to the restrictions and recommendations issued by disease prevention centers and other national organizations, governments, educational institutions, parents, teachers and students have had to come up with a process of remote and/or online learning, causing significant changes in education. The situation is potentially harmful to education since nothing is defined or set. The challenge for educational systems is to provide continuity and maintain the quality of educational action while ensuring the safety of educators, students, and their families. But the educational emergency consists on what to do in such a short time and how to remotely address students' needs by area of study and by level.

While there is no complete replacement for experiential learning, new initiatives to maintain educational quality emerge, including the inverted classroom model, the use of video conferencing, the simulation of procedures, role-play games, the use of procedural educational videos, among others. A combination of synchronous and asynchronous online teaching-learning methods were adopted. Synchronous involves real-time live lessons delivered through video conferencing. Asynchronous involves uploading learning resources to virtual platforms with procedural instructions.

It is considered that the use of technology could help close the educational gap; however, it is not always real in all contexts. The support of governmental and non-governmental agencies is

required to ensure that students in the marginal areas have the necessary equipment and Internet connection. New needs continue to emerge, such as the redesign of educational programs, the training of teachers in the use of ICT, and the systematization of the best educational experiences that respond to these new challenges.

If we consider what the poet Brecht said "the old is dying and the new cannot be born," we must learn to react promptly and professionally to the new educational challenges.

In order to continue to reflect on education, you are invited to send your manuscripts to be arbitrated in Alteridad, Journal of Education, which occupies the first place among the Scientific Journals of Ecuador, according to the ranking of the Ibero-American Network of Innovation and Scientific Knowledge (REDIB).

Monographic section
(Sección Monográfica)

Service learning as a socio-educative strategy of cooperation and learning
"El aprendizaje-servicio como estrategia de cooperación y formación socio educativa"

The service learning values map

El mapa de los valores del aprendizaje-servicio

Dra. Xus Martín-García is a profesor at Universidad de Barcelona (Spain) (xusmartin@ub.edu)
(https://orcid.org/0000-0003-4404-1026)

Brenda Bär-Kwast is coursing a PhD at Universidad de Barcelona (Spain) (brendabar@ub.edu)
(https://orcid.org/0000-0002-4263-4007)

Dra. Mónica Gijón-Casares is a professor at Serra Hunter de la Universidad de Barcelona (Spain)
(mgijon@ub.edu) (https://orcid.org/0000-0002-2696-6415)

Dr. Josep María Puig-Rovira is a retired professor at Universidad de Barcelona (Spain)
(joseppuig@ub.edu) (https://orcid.org/0000-0002-0168-6628)

Dra. Laura Rubio-Serrano is a professor at Universidad de Barcelona (Spain) (lrubio@ub.edu)
(https://orcid.org/0000-0002-5170-4564)

Abstract

Despite the fact that the specialized bibliography recognizes service learning as a relevant methodology for values education, a sufficiently complete list of the plurality of values that it activates, is not yet available. The objective of this article is to build a reliable map of the values that service learning proposes. In order to achieve it, the levels of learning that overlap in a complex educational practice will be defined and then the values that works at each level of service-learning practices will be determined. To achieve this, a rational reconstruction work based on the reciprocal optimization achieved between a selection of good service-learning experiences and the theory of moral practices and service-learning has been carried out. This methodology has allowed us to establish three simultaneous levels of learning —practice, actions and tasks— as well as a list of the values that crystallize in each of them: a complete map of the variety and richness of values that are put into play in service learning. A result that, in the processes of teacher training, will help to raise awareness of the moral strength of this methodology and to activate it during their professional performance.

Keywords: Service learning, values education, moral practice, values map, teacher training.

Resumen

A pesar de que la bibliografía especializada reconoce el aprendizaje-servicio como una metodología relevante de educación en valores, no se dispone todavía de una relación suficientemente completa de la pluralidad de valores que activa. El objetivo de este artículo es construir un mapa fiable de los valores que propone esta metodología. Para conseguirlo se definirán los niveles de aprendizaje que se superponen en una práctica educativa compleja y luego se determinarán los valores que se trabajan en cada uno de los niveles de la práctica del aprendizaje-servicio. Para conseguirlo se ha realizado un trabajo de reconstrucción racional basado en la optimización recíproca conseguida entre una selección de buenas experiencias de aprendizaje-servicio y la teoría de las prácticas morales y del aprendizaje-servicio. Esta metodología ha permitido establecer tres niveles simultáneos de aprendizaje —la práctica, las acciones y las tareas— así como un elenco de los valores que cristalizan en cada uno de ellos: un mapa completo de la variedad y riqueza de valores que se ponen en juego en el aprendizaje-servicio. Un resultado que, en los procesos de formación del profesorado, ayudará a tomar conciencia de la fuerza moral de esta metodología y a activarla durante su desempeño profesional.

Descriptores: Aprendizaje-servicio, educación en valores, práctica moral, mapa de valores, formación del profesorado.

1. Introduction

One of the relevant characteristics of learning-service is to be an excellent value education methodology. When stating that it is a proposal that combines learning with community service (Furco, 2002; Puig et al., 2015; Tapia, 2001; Martín & Rubio, 2010), the acquisition of curricular knowledge and the value training provided by the preparation and realization of the service are recognized. On this second issue, it is often ensured that learning-service forms values such as altruism, cooperation, commitment, solidarity and critical spirit (Eyler & Giles, 1999; Rafols, 2004). However, this list and similar ones are far from accounting the values in this methodology. It does not show the quantity and variety of values present in each experience. A value education methodology is applied without having a complete picture of the values it involves. The purpose of this article is to present the map of learning-service values.

In relation to this objective, it is appropriate to define learning-service as a complex educational practice that transmits values. This statement is based on available knowledge of *educational practices*, the nature of *values* and its *transmission*.

An educational practice is an orderly course of steps or actions that pursue well-established and well-known educational objectives of the participants, at least by professors, and which have been prescribed by the educative community (Miller & Goodnow, 1995; Wenger, 2001). In addition, in any practice, as MacIntire (1987) states, "the goods inherent in it are realized while trying to achieve the models of excellence that are appropriate to that form of activity… (p. 233). In other words, the practices express values used by the participants during their development and when updated the participants assimilate them (Puig, 2003). Learning-service is a complex practice that expresses values and makes the participants live.

Educational practices express and convey values, but what are values and what are their nature? The debate has been long and on (Perry, 1950; Scheler, 1941; Dewey, 2008). It is now possible to claim that values are structural qualities incorporated into reality (Frondizi, 1958, 1977). Although values can be conceptualized and theories can be elaborated on them, their original nature is not in the world of intangible ideas. On the other hand, values can be chosen because they are interesting to those who detect them, but they are not subjective preferences. Values are qualities or properties that humans have been creating during biological and cultural evolution (Cela-Conde, 1989; Tomasello, 2010, 2016; De Waals, 2007; Wilson, 2012), and these qualities have emerged and are imbued in reality: in things, established forms of relationship and behavior, public institutions, social norms or individual character provisions. Learning-service activates behaviors that manifest qualities that we consider valuable.

Learning-service is a practice that transmits values, where transmission refers to the passage of values from social space and where practice is activated to the inner space of the mind of the participating students (Bourdieu, 1997, 1980; Piaget, 1999; Rogoff, 1993; Wertsch, 1988). The latter is explained by Vygotsky (1979) as the double learning of higher functions: first values are learned in an interpsychological way—values are performed among several people— and then they dominate intrapsychologically—each subject is able to drive and sustain on his/her own initiative the realization of values. The learning-service methodology socially activates the realization of values and makes it easier for each participant to turn them into their usual way of being and acting. We are interested in pointing the idea of transmission to see how in learning-service practices the shift from social to mental is made, although this topic is not addressed in the present research.

The aim of this article is to map the values of learning-service. This objective is part of the learning-service as a practice that transmits values and a conception of values as qualities that

are expressed in practices and that individuals learn. However, to map the values of learning-service, despite having literature available on this subject (Puig, 2016), there is not a broad relationship made on the different values that are involved in the learning-service, as well as in other complex practices. Nor there is sufficient knowledge about the different spaces and levels of learning values in educational practices and, of course, the same deficiency is seen in the case of learning-service. Therefore, mapping the values of learning-service involves pursuing two complementary objectives: 1) defining the levels of learning values in a complex educational practice, and in the service learning. 2) To formulate an organized inventory of the values that are involved in the learning-service practices.

In addition to the relevance of the results achieved for a better knowledge of the learning-service and the learning levels of complex educational practices, perhaps the most prominent result is to help teachers use the learning-service value map to be aware of the richness of this practice and to implement it with all the formative power it offers. A future aspect that will not be addressed in this article.

2. Methodology

At the methodological level, building the map of values of learning-service requires actions that slow down the process based on the rational *reconstruction approach,* which invites to analyze between experience and theory to build proposals linked to reality that, combined with theoretical references, allow a solid foundation of them.

The process begins with the creation of a research team that meets two conditions: Diversity among its members and the experience of each of them in the subject of learning-service. To guarantee the first aspect, eight researchers linked to educational settings are called, where learning-service has a significant presence: Elementary school, High school, free time, social education, socio-educational intervention and,

university level. It was appreciated that the main areas of education were represented among all participants and a wide range of experiences could be collected. The second quality condition required that the members of the research team should have a broad knowledge of the learning-service methodology and had previously been involved in research related to value education and learning-service.

Materials that systematize the phases and recommended actions to build quality of learning-service projects have been taken into account in the development of the value map (Puig et al., 2009; Martín, 2016, Tapia, 2006), as well as the evaluation of learning-service projects that include a complete set of all pedagogical dynamisms of this type of practice (GREM, 2015). Quality experiences detected by some member of the research team in their field of knowledge and previous systematizations have also been selected, many of them collected in spaces such as: Centre Promotor de l'Aprenentatge Servei (https://bit.ly/2JzmDfp); Zerbikas (https://bit.ly/3g5RvQF), Red Española Aprendizaje Servicio (https://bit.ly/2JKd65a) and CLAYSS, Latin American Center for Learning and Solidarity Service in Latin America (https://bit.ly/3lFs49A).

Eight research team work sessions were conducted, oriented to the individual work and to the reflection. Bibliographic contributions were discussed in these sessions, as well as other theoretical materials that emerged throughout the debate. Notes and recordings were collected from each session. The conceptual and graphical framework that would determine how the results are presented was constructed as a result of the collaborative work: the map of values. From that moment on, the joint work was directed to determine the ten phases present in the learning-service experiences, the five main tasks involved in each of them and the two priority values obtained in each of these moments. Throughout the project, the ultimate aims of any learning-service proposal were also defined.

The theoretical and practical contributions and discussions that emerged in the sessions were gradually incorporated until the proposal presented was built and completed. An idea that, inspired by pedagogical social cartography (Barragán, 2016; Novak 1998), is moving toward the construction of a cognitive map of the values present in the learning-service experiences. The organization proposal in a map model that considers Novak and Gowin's ideas (1988) about how people build learnings and how maps help structure them.

As can be seen in Table 1, the methodological proposal of rational reconstruction (Habermas, 1985) on which the research is based has required a meta-analysis of the learning-service practices in the light of different theoretical references, which have allowed to define the contents of each structure level of the map.

Table 1. Phases of the elaboration process

Phase	Definition
Preparation	• Data collection of values in learning-service experiences. • Build a diverse research team. • Specify the objective and a shared format.
Systematic monitoring	• Search, access and share elements present in good service-learning practices. • Analyze, systematize and compare existing tools on the construction of learning-service projects.
Theoretical frame	• Provide theoretical information on the methodology of service learning. Detect and systematize theoretical information about the process of building values in learning-service.
Rational Reconstruction	• Determine and define: The phases of the service-learning projects. The main tasks given in each of the previous phases. The values observed in each phase and the ultimate goals that learning-service pursues.
Writing process	• Analyze the presentation forms of the work performed. Write the different levels of the map and supplementary material for its understanding and use.
Editing	• Evaluate the work in its background and in its form and make the appropriate changes.
Intended use	• Define the different ways to use the value map and start its application and dissemination.
Publication	• Publish the map in the form of an easy guide and in a poster format.

Source: Own elaboration

3. Results

The results obtained in the research are concretized by the design of the values´ map of the learning-service. It responds to the two objectives initially set out. On the one hand, the levels of learning values in the learning-service are defined and on the other, an organized inventory of the values that are activated in that practice is proposed.

This is a result that provides a graphical image of a topic that has not been systematically addressed so far: The development and acquisi-

tion of values by learners while they are involved in a highly complex practice such as learning-service. If previous studies have shown the diversity of dynamisms that are activated during a project and the complexity of tasks required by the faculty (GREM, 2015), this research reflects the wealth and complexity of values that young people require in an activity. The map allows to observe values linked to the different phases of the project and others that have a prominent presence throughout the process. The image provided also allows to be aware of the value learning inherent in this methodology.

3.1. Structure and learning levels in the map of values

As can be seen in Figure 1, the map is structured into three levels of elements, each of which expresses values and thus makes it easier for students to acquire them. The first level, the nuclear, refers to the whole practice and it includes the purposes of learning-service values; the second level, the phases or steps of activity, is constituted by an ordered set of actions that embody values; and the third level, the multiple tasks is constituted by the development of each phase and the whole practice. Each of these tasks is performed according to value orientations.

Table 2. Learning levels on the value map

Practice	Organized set of actions that have an operational objective, embody values and transmit them to students.	Purposes of value.
Actions	Designate each of the phases or steps whose articulation makes sense to a complex socio-cultural practice.	Values embodied in the action.
Tasks	Behaviors that demonstrate competences that must be activated to perform each of the actions that constitute a practice.	Orientation to values.

Own elaboration.

The first level of the structure corresponds to the value purposes of the learning-service; this level is located on the map in the center, with the aim of highlighting its nuclear function. The three axes of values that form it —altruism and cooperation, citizen participation, and transformative learning— have a cross-sectional presence in the different phases, and give meaning to the activity as a whole. They are values inherent in the methodology and propose a horizon of learning-service value.

The second level of structure reflects the ten actions or phases in which a learning-service project is developed and the most outstanding values that emerge in each one. Phases are a sequence in the development of activities, but they are not limited to drawing a route. Despite their procedural character, they translate actions into which values are shown. Therefore, they are

"value" actions to the extent that students are required to exercise and train certain values—only two of which are highlighted in the map for each phase—linked to the ten moments in which the activity is developed.

The circular figure on the map invites applying the proposed sequence. While there are phases of initial moments and others that, in general, close a project, the entrance to a learning-service has different possibilities depending on the uniqueness of each experience. But the phases do not refer only to actions, they also point to values. The second level of the map has two elements: The formulation of the ten phases and the values that students most intensively practice while performing the action. These are not unique values, but they are the most relevant.

The third level of structure is formed by the tasks or competent behaviors that require

participation in a learning-service activity. These are on the outside of the graph. The fifty tasks that are collected account for the complexity of the methodology by looking at the work done by the students, who carry out different tasks of varying degrees while learning to work on real needs in the environment. Each phase has

been assigned the five most common tasks to all learning-service projects, although these do not exhaust students' work. The nature of the tasks varies significantly and the map includes tasks from simple to more complex, which directly point to the development of different competences.

Figure 1. Map of learning-service values
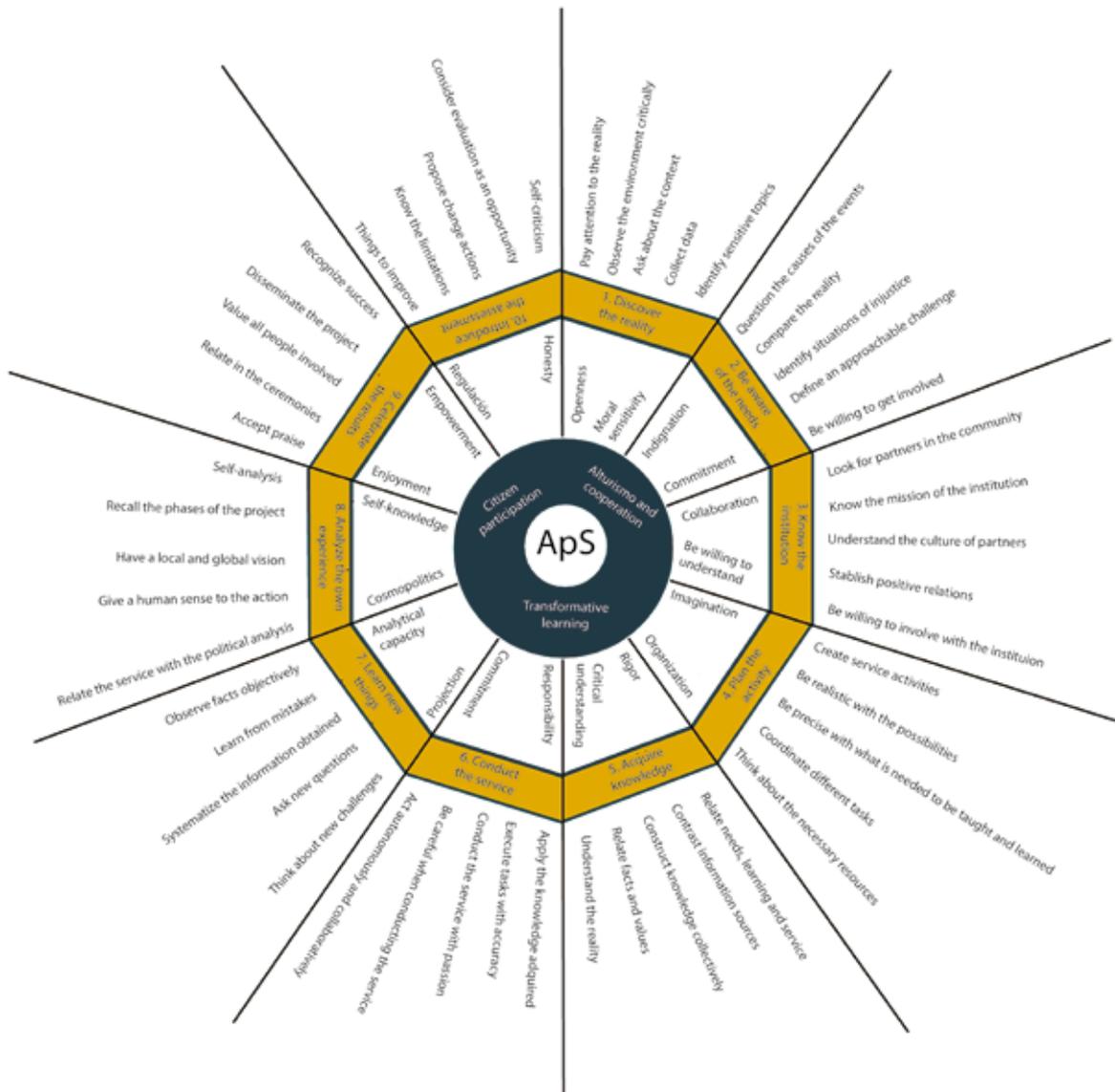
Own elaboration.

3.2. Inventory of values in service-learning

The second of the objectives set out in the article, the inventory of values of service-learning projects, is explained by the different levels of value of the circular structure. On the one hand, the aims that guide the development of practice are stated and, on the other, those values that are shown in each of the phases.

The values in the center of the map correspond to the purposes that drive and make sense in the conduction of the learning-service. Three value horizons have been described: Altruism and cooperation; citizen participation; and transformative learning. Altruism and cooperation refer to the development of behaviors that are far from individual interest and are based on mutual support, hospitality and necessary interdependence of community members. Citizen participation is about promoting the incorporation of students as active citizens in their community, a role that allows them to contribute to the common good. Transformative learning refers to the willingness to make civic sense of knowledge useful to improve reality and enable students to transform the world.

The values that are activated in the phases are not only good ideas that should be worked in the classroom, but the result of students' experimentation of tasks. Each phase includes five tasks and two values. Three of the map phases have been chosen to explain them: being aware of the needs, performing the service and, celebrating the results.

3.2.1. Being aware of needs. Indignation and commitment

In the second phase of the projects, young people are invited to identify needs, situations of deficiency and aspects that can improve the lives of people, groups or the environment. Being aware of needs points to two values, indignation and commitment. A critical analysis process that allows students to understand that these needs are caused by a situation of injustice that requires denunciation and restrain. However, indignation is not enough, it also requires commitment to take individual and collective responsibility for improving the reality.

Both values, indignation and commitment, are activated when educators propose the following tasks.

Table 3. Values in the second phase

Being aware of the needs	
Values	Indignation. Commitment.
Tasks	Question the causes of the facts. Compare the reality. Detect situations of injustice. Define an accessible challenge. Be willing to get involved.

Own elaboration.

Educators encourage students to conduct a critical analysis of the reality when the causes of the facts are questioned, and to do so they address both systemic aspects and contextual and territorial elements. When young people compare the reality, they can make an assessment that points to a hopeful look. Detecting situations of injustice involves relating how the needs

are embodied in the lives of the people who suffer them, a phase that does not end with the analysis, but instead incorporates two tasks aimed at assuming responsibilities. The first one to define an accessible challenge that allows young people to take action of denunciation and restrain in a realistic and motivating proposal, and the second to be willing to get involved, which means realizing the previous challenge in an individual and collective commitment.

3.2.2. Perform the service. Responsibility and Involvement

The sixth phase of the practice involves the execution of solidarity and altruistic actions by young people. Tasks that have a close relationship with the critical analysis of the reality and the learning acquired in previous phases. Performing a service is aimed at two values, responsibility and involvement. The first allows to apply what has been learned in the project to improve people's reality and to carry out service tasks with commitment; an obligation that takes meaning alongside involvement, since learning-service not only seeks to efficient execution, but also requires collaboration and delivery.

Both values, responsibility and involvement, are experienced when educators propose the following tasks in the project.

Tabla 4. Values in the sixth phase

Perform the service	
Values	Responsibility. Implication.
Tasks	Apply the knowledge acquired in the reality.
	Run tasks accurately.
	Perform the service with commitment.
	Take care when performing the service.
	Act autonomously and collaboratively.

Own elaboration

Professors invite young people to apply the knowledge they have acquired in reality, as well as the knowledge and skills that have been trained in earlier phases. The performance of the service requires young people to be rigorous and thorough in order to carry out tasks with accuracy. The usefulness of knowledge and accuracy are developed in three of the proposed tasks. Performing the service with commitment allows students to experience dedication and give meaning to their action. Being careful in the performance of the service requires carrying out the tasks of solidarity with attention and sensitivity; and acting autonomously and collaboratively increases the value of service while being awareness of being working for the common good.

3.3.3. Celebrate the results. Empowerment and enjoyment

The penultimate phase of projects assesses the altruistic and collaborative process undertaken, as well as the ability of students to contribute to the community. This phase allows to integrate in a positive way the personal and collective success experienced during the project. Celebrating the results involves two values, empowerment and enjoyment. The first is the result of tasks carried out in previous phases, but especially of the dissemination and celebration that is carried

out when the project is concluded. The second involves the value of enjoyment, which is concretized in the joy and pleasure of integrating the praise and accepting the imprint they leave in identity.

Both values, empowerment and enjoyment, are activated when the following tasks are put into play in the project.

Table 5. Values in the ninth phase

Celebrate the results	
Values	Empowerment. Enjoyment.
Tasks	Recognize success. Difuse the project. Value the merits of all people involved. Be involve in the acts of celebration. Accept the praise.

Own elaboration

Educators recognize the success of young people and the benefit to the community of the service they have performed. Disseminating the project allows the visibility and dissemination of experiences, the learning of young people and collective achievements, which is something that goes beyond the class group and that involves recognizing and thanking the role of all participants in the project. On the one hand, engaging in celebration events allows students to express gratitude to the community. On the other hand, welcoming praise requires integrating recognition of others, a task that is not always easy but helps to move toward self-realization.

4. Discussion and conclusions

The map of values presented in the article contains two basic contributions. The first consists of the proposal for a structure that is organized into levels of learning that shape learning-service activities. These are three levels and are activated simultaneously: practice, actions, and tasks. The second contribution focuses on the detection and definition of the values students develop at each of the three levels. Thus, the values that make sense to the practice as a whole are explained, as well as those whose presence intensifies in each of the ten phases or actions that indicate the sequence of a project.

With the focus on the student's role, the map includes three purposes, ten phases, fifty tasks and twenty values that allow young people to discover the reality, research to build knowledge that is useful to the community and participate in the society altruistically. The result of the research reinforces the idea advocated from progressive pedagogies (Freinet, 1972; Dewey, 1964) that the acquisition of values is not achieved from oral transmission, but that values are lived, experienced and learned in action.

The results highlight the number and diversity of values that are activated during the learning-service activities. Some of these values are widely known and regularly cited in the pedagogical literature. Cooperation, common good, altruism or participation are moral values that are almost automatically associated with the practice of learning-service. However, during the systematic review of activities, a negligible num-

ber of new values emerged despite not having widespread recognition, some of which —rigor, enjoyment, or analytical ability—do not have a markedly moral character, but they are also desirable values that students train and whose activation improves their formative experience.

In relation to the quantity and diversity of values detected on the map, the hypothesis of the research team is that although the learning-service requires the use values, the awareness of the moral potential of this practice can increase student´s learning.

A map of learning-service like the one presented in this paper allows teachers to intensify values, visualize them, generate reflection or increase attention on some tasks, so that their knowledge of the values reverses the formative quality of practice, the knowledge and awareness to which the map of values seeks to contribute by providing a reliable and systematic analysis on the subject.

References

Barragán, D. (2016). Cartografía social pedagógica: entre teoría y metodología. [Social Pedagogical Cartography: between Theory and Methodolgy]. *Revista colombiana de educación*, *70*, pp. 247-285, Universidad Pedagógica Nacional, Bogotá. https://bit.ly/2VtWPno

Bourdieu, P. (1980). *Le sens pratique*. Les editions de Minuit.

Bourdieu, P. (1997). *Meditations pascaliennes*. Éditions du Seuil.

Cela-Conde, C.J. (1989). El naturalismo contemporáneo: de Darwin a la sociobiología. En V. Camps (Ed.), *Historia de la ética. 3. La ética contemporánea* (pp. 601-634). Editorial Crítica.

De Waals, F. (2007). *Primates y filósofos. La evolución de la moral del simio al hombre*. Paidós.

Dewey, J. (1964). *Naturaleza humana y conducta*. Fondo de Cultura Económica.

Dewey, J. (2008). *Teoría de la valoración*. Editorial Biblioteca Nueva.

Eyler, J., & Giles, D.E. (1999). *Where's the Learning in Service-Learning?* Jossey-Bass

Freinet, C. (1972). *La educación moral y cívica*. Laia.

Frondizi, R. (1958). *¿Qué son los valores?* Fondo de Cultura Económica.

Frondizi, R. (1977). *Introducción a los problemas fundamentales del hombre*. Fondo de Cultura Económica.

Furco, A. (2002). Is service-Learning really better than community service? In A. Furco, & S.H. Billing (Ed.), *Service-Learning. The essence of the Pedagogy* (pp. 23-50). Information Age Publishing.

GREM (2015) Rúbrica para la autoevaluación y la mejora de los proyectos de aprendizaje-servicio. Fundació Jaume Bofill. https://bit.ly/33FhY2F

Habermas, J. (1985). *Conciencia moral y acción comunicativa*. Península.

MacIntyre, A. (1987). *Tras la virtud*. Crítica.

Martín, X., & Rubio, L. (2010). *Prácticas de ciudadanía*. Octaedro.

Martín, X. (2016). *Proyectos con alma. Trabajo por proyectos con servicio a la comunidad*. Barcelona, Graó.

Miller, P.J., & Goodnow, J.J. (1995). Cultural practices: Toward an Integration of Culture and Development. In J.J. Goodnow, P.J. Miller, & F. Kessel (Ed.), *Cultural Practices as Contexts for Development* (pp. 5-16). Jossey-Bass Publishers.

Novak, J.D., & Gowin, D.B. (1988): *Aprendiendo a aprender*. Martínez Roca.

Novak, J.D. (1998): *Conocimiento y aprendizaje. Los mapas conceptuales como herramientas facilitadoras para escuelas y empresas*. Alianza Editorial.

Perry, R.B. (1950). *General Theory of Value*. Harvard University Press.

Piaget, J. (1999). *De la pedagogía.* Paidós.

Puig, J.M. (2003). *Prácticas morales. Una aproximación a la educación moral*. Paidós.

Puig, J.M. (Coord.) (2009). *Aprendizaje servicio (ApS). Educación y compromiso cívico*. Graó.

Puig, J.M. (Coord.) (2015). *11 ideas clave. ¿Cómo realizar un proyecto de aprendizaje servicio?* Graó.

Puig, J. (2016). Aprendizaje servicio y educación en valores. *Convives*, (16), 12-19. https://bit.ly/2JxGcVp

Rogoff, B. (1993). *Aprendices del pensamiento. El desarrollo cognitivo en el contexto social.* Paidós.

Scheler, M. (1941). *Ética. Revista de Occidente.*

Tapia, N. (2001). *La solidaridad como pedagogía. El aprendizaje-servicio en la escuela.* Ciudad Nueva.

Tapia, N. (2006). *Aprendizaje y servicio solidario. En el sistema educativo y las organizaciones juveniles.* Ciudad Nueva.

Tomasello, M. (2010). *¿Por qué cooperamos?* Katz.

Tomasello, M. (2016). *A Natural History of Human Morality.* Harvard University Press.

Vygotsky, L.S. (1979). *El desarrollo de los procesos psicológicos superiores.* Crítica.

Wenger, E. (2001). *Comunidades de práctica. Aprendizaje, significado e identidad.* Paidós.

Wertsch, J.V. (1988). *Vygotsky y la formación social de la mente.* Paidós.

Wilson, E.O. (2012). *La conquista social de la tierra.* Debate.

Community assessment in the face of climatic disasters: A Service-Learning experience

Diagnóstico comunitario ante desastres climáticos: Una experiencia de aprendizaje-servicio

Dr. José Sandoval-Díaz[1] is a professor and researcher at Universidad del Bío Bío (Chile) (jsandoval@ubiobio.cl) (https://orcid.org/0000-0001-7247-7113)

David Cuadra-Martínez is a professor and researcher at Universidad de Atacama (Chile) (david.cuadra@uda.cl) (https://orcid.org/0000-0002-0810-2795)

Cristian Orellana-Fonseca is a professor and researcher at Universidad del Bío Bío (Chile) (corellana@ubiobio.cl) (https://orcid.org/0000-0001-8614-8011)

Eduardo Sandoval-Obando s a professor and researcher at Universidad Autónoma de Chile (https://orcid.org/0000-0001-7471-6536)

Abstract

The increase of extreme events caused by climate change has lead no only to the local need for strengthen the coping and resilience capacity at a community level, but also, to rethink about the suitability of the university study programs in order to develop competent professionals in the face of these new emerging risks. In this context, the objective of this study was to assess the implementation of a community needs assessment process before a climate disaster through the methodological implementation of the Service-Learning strategy (ApS) in a course of psychology students in Chile. To do so, we selected a representative case study of community management in the face of a climate disaster in the north of Chile, using a participatory action research design (PAR). The data were produced using an inter-method triangulation of six techniques, creating a four areas scheme of the learning process results. These areas were: i) theoretical-conceptual, ii) methodological, iii) practical and iv) ethical-political. The results showed the use of ApS in the teaching-learning process of the community assessment, identifying both advantages and limitations in the development of disciplinary, transversal and professional competences, as well as those competences related to the service provided. This study concludes that it is important to integrate horizontal, participative strategies, and use them in the process of professional training and education, according to the integral type of university education required to face the complex psychosocial problem of climate change.

Keywords: Service-learning, community assessment, professional training, participatory action research, climate change, Chile.

Resumen

El incremento de eventos extremos —a causa del cambio climático— conlleva no solo a la necesidad local de fortalecer las capacidades de afrontamiento y de resiliencia a nivel comunitario, sino también, al replanteo sobre la idoneidad de los planes formativos universitarios en el desarrollo de profesionales competentes ante estos nuevos riesgos emergentes. Bajo este contexto, el presente trabajo tuvo como objetivo valorar la implementación de un proceso de diagnóstico de necesidades comunitarias ante un desastre climático, esto mediante la aplicación metodológica de la estrategia de aprendizaje-servicio (ApS) en un curso de estudiantes de psicología en Chile. Para esto seleccionamos un estudio de caso representativo de gestión comunitaria ante un desastre climático en el norte de Chile, esto bajo un diseño de investigación acción-participativa (IAP). Los datos son producidos mediante la triangulación intermétodo de seis técnicas, esquematizando los resultados del proceso de aprendizaje en cuatro áreas: i) teórico-conceptual, ii) metodológica, iii) práctica y iv) ético-política. Los resultados relevan el uso de ApS en el proceso de enseñanza-aprendizaje del diagnóstico comunitario, identificando tanto ventajas como limitaciones en el desarrollo de competencias disciplinares, transversales profesionales y del servicio entregado. Se concluye con la importancia de integrar estrategias horizontales, participativas y situadas en los procesos de enseñanza profesional, esto acorde al tipo de formación universitaria integral que requiere la problemática psicosocial compleja del cambio climático.

Descriptores: Aprendizaje-servicio, diagnóstico comunitario, formación profesional, investigación acción participativa, cambio climático, Chile.

1. Climate Change and the University Training Role

Adaptation to climate change is one of the main objectives for sustainable development on a global scale (Intergovernmental Panel on Climate Change [IPCC], 2014). In Latin America, global environmental change has not only led to the emergence of new natural risks, such as (i) biodiversity loss, (ii) sea level rise, (ii) heat waves and (iv) increased hydrometeorological hazards, droughts and floods; but, in turn, it has amplified and intensified the social vulnerability of the territories (Griselda-Günther & Gutiérrez, 2017; Sánchez & Reyes, 2015).

In terms of impact, considering the year 2018, hydrometeorological events affected 57.3 million of people, being floods the main event with an average of 35.4 million affected (UN Office for Disaster Risk Reduction [UNDRR], 2019).

These untimely events have led to the reconfiguration of government disaster risk reduction strategies (DRRS), which have shifted the focus from the institutional response to local capacity strengthening and community resilience (Gaillard et al., 2019; Sandoval-Díaz, 2020).

In this regard, article six of the United Nations Framework Convention on Climate Change (UNFCCC) relieves the role of education, training and awareness of this risk, requiring not only curriculum integration, but rethinking the role of education in the face of "climate literacy" (IPCC, 2014). Accordingly, several countries have gradually incorporated curriculum content, both in formal elementary and/or high school (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2015). Meanwhile, although this problem is expanding at the university level, especially in disciplines and postgraduate studies linked to environmental sciences, it is in the professional field of social sciences that committed collaborators are required to strengthen adaptive capacities of

community resilience (García-Lirios et al., 2014; Ricardo et al., 2019).

In this connection, Article six of the United Nations Framework Convention on Climate Change (UNFCCC) relieves the role of education, training and awareness of this risk, requiring not only curriculum integration, but rethinking the role of education in the face of "climate literacy" (IPCC, 2014). Accordingly, several countries have gradually incorporated curriculum content, both in formal primary and/or secondary education (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2015). Meanwhile, although at university level this problem is expanding, predominantly in disciplines and postgraduate studies linked to environmental sciences,

Therefore, it is important to rethink the educational role of universities in the face of these emerging issues, with the aim that they not only address their basic research development, but also in facilitating applied training spaces that contribute to the development of professionals who are competent in the diagnosis and intervention of these problems (De Castro & Domínguez, 2018).

In the case of vocational training in Chile, being competent at an institutional level is defined as:

> An individual's ability to mobilize both internal resources (knowledge, skills and attitudes) and external resources available in the environment of his or her performance area to solve complex problems arising in the development of his or her profession or activity (National Accreditation Commission of Chile [CNA], 2015 p. 4)

In the field of university education and in the human sciences in particular, a recurrent problem is the difficulties of students in transferring, generalizing and applying the theoretical contents learned inside the classrooms, toward real practical situations (Barrón-Tirado, 2009; Cuadra et al., 2018), leading not only to difficul-

ties in how to proceed operationally in differentiated contexts, but also to the promotion of active involvement and participation by the communities (Stringer, 2008).

In turn, this difficulty in transfer is not only referred to subjects that contribute to the fields of potential professional performance — but also — in those formative subjects linked to reflexivity and research-scientific methodologies (Bassi, 2015; Orellana-Fonseca et al., 2019). From the university imaginary, those subjects with a research nature only acquire "meaning" in the face of the potential conduction of the thesis or when writing "papers" (If students are interested in the academic-university field), ignoring many times (like their professors), the potential advantages that this form of scientific rationality provides in situations of concrete professional performance, such as the processes of diagnosis and social intervention (Muñoz-Arce et al., 2017).

These processes of diagnosis and social intervention, from a transdisciplinary perspective, have as objective not only (i) to delimit and evaluate psychosocial needs in the face of a particular problem, and subsequently (ii) to deploy informed actions to solve that problem, but also (iii) to enable inclusive and collaborative spaces with and from the communities involved, with the aim of mediating the reflective acquisition of transforming capacities of the violated contexts (Freire, 2012; Ortega, 2015).

In this regard, we maintain that the formation of competences in the face of the diagnosis of social problems must overcome the know-how binarism of conventional disciplinary-professional training (Matus, 2002), integrating strategies and inquiry procedures, which consider not only technical competences but also the reflexive and logical subjectivity underlying the investigative task as transdisciplinary transformative practice (Cuadra-Martínez et al., 2018; Muñoz-Arce et al. 2017; Ortega, 2015), according to an integral university formation of professional and existential competences in the face of the current emergence of complex prob-

lems on a global scale (Morin, 2016). Based on this, we relieve the practical and heuristic role of the research process applied to the professional field, understood as a potential tool for reflective substantiating diagnostic decisions and social intervention (Bassi, 2015; Orellana-Fonseca et al. 2019), more so in cases where data collection and analysis of complex problems, such as climate change, are necessary (García-Lirios et al., 2014; Ricardo et al., 2019).

In summary, this formative development of research competences applied to the professional field leads us to rethink the conventional forms of teaching-learning, moving us to the incorporation of participatory and implicative-active methodologies, which not only contribute to the good "theoretical declarative" performance, but also to their potential reflexive application in problematic contexts (López-Noguero, 2017). According to this, a potential formative strategy for this task is service learning (LS).

1.2. Learning-service

Vocational training requires educational spaces that can transfer knowledge from the classroom to concrete reality, under the acquisition and development of cross-cutting[2] and disciplinary competences (Wendler, 2012; Cuadra-Martínez et al., 2018). However, under this new uncertainty context, the necessary implementation of experiential-active methodologies is supported, requiring a combination of learning reflection by making constant (Dewey, 1985), and active social commitment to the vital needs of the most deprived communities (Freire, 2012).

Thus, the SL methodology would allow to develop competences, transfer knowledge to communities, educate in values, develop a better self-knowledge, a strong sense of social responsibility and citizen commitment (Rodríguez, 2014), under the current context that increasingly challenges professionals (Pizarro & Hasbún, 2019). In turn, this proposal articulates simultaneously socio-educational responsibility, peda-

gogical innovation and active student prominence, both in the territory to be involved and in the teaching-learning processes (Mayor, 2019). At present, there are more than 147 SL notions, which materialize in (i) varied sociocultural contexts, (ii) institutions with different administrative dependence, (iii) intersectorality in the type of service, (iv) varied curricular implementation, (v) different disciplines, (vi) multiple levels and ages of the participants (Mayor, 2019).

For Furco (2011), one of the most recognized authors of the area, SL is "a teaching pedagogy whereby students acquire a better understanding of academic content, applying skills and knowledge for the benefit of society" (p. 23). On the other hand, in applied terms, the Chilean National Service-Learning Network (REASE), created in 2011, refers to it as:

> A pedagogical teaching-learning approach applied in courses, practices and theses, used for the resolution of real social problems, through a quality service in which in an integrated and collaborative way the three central actors of the process (teachers, students and community partners) relate and work together. (Claire et al., 2019 p. 38)

While there are difficulties in homogenizing this educational practice under one expression, there is consensus on three fundamental criteria: (i) Community service with the objective of responding to social problems, (ii) active pedagogy that requires the leading role of the student and academic body, and (iii) integrated planning of curricular contents with community service activities that enable the acquisition of competences (Montes, Tapia & Yaber, 2011). With regard to the pedagogical construction of SL, five main dimensions have been identified: (i) learning, (ii) service, (iii) participation, (iv) activity of social utility and (v) reflection, which, although not expressed in the same way and emphasis, manifest a desirable end state (Mayor, 2009).

According to this background, the general objective of this paper is to evaluate the imple-

mentation of a diagnosis process that identifies the community needs in the face of a climate disaster, by using the SL methodological application in university psychology students in Chile. As specific learning objectives we seek to: i) identify the learning benefits in the theoretical-conceptual, methodological, practical and ethical-policy areas of community needs under SL, ii) identify learning limitations in the four areas mentioned above; for the service area it is sought (iii) to generate a participatory diagnosis of psychosocial needs in the face of the disaster.

1.3. Characteristics of the case study

The career of psychology at the University of Atacama (UDA) arises with the objective of initiating the regional training of professionals whose scientific and practical competences are the diagnosis, evaluation and intervention in processes involving people, groups and organizations, with the capacity of ethical discernment and respect for human nature in the practice of the profession (Departamento de Psicología UDA, 2015).

In regard to the constructivist university educational model, and in line with the proposal 2008-2011 for the approval of curricular competences of psychologists by the network of state universities of Chile,[3] this career emphasizes the formation of transversal and specific competences in ten semesters (Juliá, 2013).

This is how this competency-based training incorporates four practical-professional integration workshop subjects throughout its curriculum: i) career field approach (second semester); ii) areas of development and professional insertion (fourth semester); iii) psychosocial diagnosis (sixth semester) and iv) psychosocial intervention (eighth semester), as prior inductions to final professional practice (Departamento de Psicología UDA, n.d.). Under this training framework, it is decided to incorporate SL into the subject Integration Workshop III (psychosocial diagnosis), based on the concern of a group

of academics, who, following a climate disaster that occurred in 2015 (see section 1.4), seek not only to respond to a request to support an affected community, but also to strengthen the applied understanding of some methodological research tools previously taught theoretically.

Based on the above, prior to the beginning of the second half of 2016, the incorporation of the SL strategy into the integration workshop III is designed and planned; then, the search for territorial collaborators started, identifying the neighborhood N°36 of the town of Paipote, who were in full design of the post-disaster housing reconstruction plan. Accordingly, a series of meetings were held between professors and community leaders to bring together reciprocal and plausible objectives to develop, where it was agreed to develop a diagnosis of community needs.

In the present paper we understand the diagnosis of needs as the elaboration process and systematization of information that allows to know the problems and psychosocial requirements in a context, allowing to rank needs, and potential intervention strategies seeking to give a solution for its implementation (Aguilar-Idañez & Ander-Egg, 2001). The requirements that this type of diagnosis must meet is that it must be broad (for this reason different qualitative and quantitative research strategies are incorporated), with a simple, precise and timely language for the post-disaster potential housing reconstruction.

1.4. The climate disaster in Atacama

On March 25, 2015 (25M), an extreme hydro-meteorological event caused significant rains in 17 streams in Atacama, Chile. In Copiapó, the regional capital, the rains carried a large amount of water, burying the city under a sediment layer of 31 cm thick, leaving more than 50% of the houses without a sewerage system. In terms of the affectation, 22 people died, 28 000 were homeless, 2000 homes were destroyed and 5000 with major damage, with an economic impact of more than USD 46 million (Izquierdo et al., 2018).

In terms of psychosocial impact, the exposed-susceptible groups with significant subjective severity were the elderly, people with a disability or a chronic disease, women, people with a low-income, and without higher education studies, plus those in the condition of partial-total damage of their home and who did not receive support for housing reconstruction (Sandoval-Díaz & Cuadra-Martínez, 2020).

In physical-material terms, the mean height of affectation was 45 cm, identifying four sectors of the city in which the flood exceeded the water sheet meter, one of them being the locality of Paipote, zone zero of the disaster. According to Izquierdo et al. (2018), floods caused by mudslides represent a global risk, especially in areas of high levels and arid climate, such as Paipote (see Figure 1). This residential town of 20,000 inhabitants, founded in 1913, is located between the communes of Tierra Amarilla and Copiapó, 8 kilometers of distance from each other.

At the end of 2016, neighborhood leaders of Paipote N°36 are trying to organize themselves to accelerate the slow reconstruction of their neighborhoods and homes devastated by the disaster (more than a year and a half ago), as well as to seek support from both governmental and civil society actors, as was the case with the Department of Psychology of UDA. In this regard, a group of professors designed a training program in the diagnosis of psychosocial needs at the community level. The implementation of this program was carried out in order to respond to two objectives: raise a diagnosis in conjunction with the neighborhood board, and strengthen professional training tools for eighth semester students.

Figure 1. Aerial diagram of the case study

Source: Astudillo-Pizarro and Sandoval-Díaz (2019, p. 315).

2. Methodology

A case[4] study of community management in the face of a climate disaster was used; for this purpose, the locality of Paipote de Atacama was selected as a representative case (Gerring, 2007). A Participatory Action Research Design [PAR] was implemented with the aim of emphasizing the participation and action of the affected community (Stringer, 2008). The phase of awareness raising, involvement and production of information, linked to the direct participatory experience of the professors responsible for the course throughout the disaster cycle, were essential to the PAR, alternating collaboration with the community through participation in intersectoral assemblies linked to housing reconstruction and the organization of recreational activities as a whole. Finally, in order for students to apply investigative techniques taught in previous subjects, "triangulation of methods"[5] was incorporated as a cross-validation criterion (Flick, 2014), with the objective of using both quantitative and qualitative (QUAN-QUAL) strategies for the production of oral, written and visual data, which will be described in the technique section (see picture 1).

With regard to collaborating partners, intentional sampling was used at the neighborhood level, proceeding "according to the relevance of the cases, rather than by their quantitative representativity" (Flick, 2007, p. 80). Based on the presentation, work was carried out in the neighborhood N°36 of Paipote, located in the zone zero of the disaster, which had 174 families with different degrees of housing involvement.

Figure 2. Application of the drifting technique in Paipote

Photo: José Sandoval-Díaz.

2.1. Procedures

The implementation of SL took place from mid-July to end-December 2016. Integration Workshop III had 34 students enrolled in the eighth semester of psychology. At the service level, two coordination meetings were held with neighborhood leaders prior to the beginning of the subject with the objective of agreeing on the products, periodicity and procedures of the diagnosis, and knowing the local history and experience related to the climate disaster, enabling a first territorial approach to the context and the problems to be addressed. Following this coordination, contact was made with some families affected along with the key informant (neighborhood leader), with the aim of disseminating the potential work to be done.

At the learning level, weekly theoretical-practical sessions were initially established with a duration of approximately one hour and a half (duration of the course), which were extended to three hours if performed on the field. For the development of the subject, the students self-grouped by personal affinities, (in a maximum of four people), with the objective of prioritizing a team work based on previous knowledge. A total of 13 sessions were implemented (plus two recreational sessions with the community), which were held both in the field and in the university classrooms. The sessions are briefly described in the following table.

Table 1. Activity sessions implemented in integration workshop III

Date	Activity	Type of Activity	Brief description
15/07 24/07	Pre-coordination meetings with the community.	Ground practice	Academic body meetings with neighborhood leaders for setting objectives and procedures.
06/08	PAR design.	Theoretical	Classroom presentation of the design, synthesizing its theoretical, practical and procedural components.
30/08	First induction to the field.	Field Practice	A walking tour of the locality was conducted at the group level, using a field diary to record first impressions.
13/09	Guided observation: Drift.	Field practice	Application of a participating observation technique guided by neighborhood leaders.
30/09	First day, risk management of local disaster UDA.	Seminar-discussion	With local experts on disaster risk management, involving both neighborhood leaders and students.
04/10	Diagnosis of observed needs: static and dynamic.	Theoretical	Classroom presentation of the diagnosis of psychosocial needs, synthesizing its theoretical-practical components.
11/10	Design of a quantitative scale.	Theoretical-applied	Students designed closed selection questions in the classroom i) dichotomic, ii) polynomic and iii) Likert scale, according to qualitative impressions collected in the field.
25/10	Application of quantitative scales.	Field practice	Field application of psychometric scales and closed questions (consensual and selected in the previous class), by probabilistic sampling of homes.
08/11	Participatory strategies: Ecomap and social mapping.	Theoretical	Introductory presentation of participatory techniques synthesizing their theoretical-practical advantages and limitations.
29/11	Need Diagnostic Systematization Matrix.	Theoretical-applied	Theoretical presentation of the Community Capabilities and Vulnerabilities Matrix (CVM).
06/12	Presentation of group advances (matrices).	Theoretical-Expositive	Group presentation of CVM matrix advancement, with a feedback done by professors and students.
13/12	Delivery of final synthesis report.	Theoretical	With the feedback, the working groups were required to produce a final report.
10/08 21/12	Recreational activities: (i) celebration of the Child Day and (ii) support for Christmas celebration in the community.	Recreational Activities	Performing and supporting two recreational activities with the professors, students, and the community.

Source: own elaboration

2.2. Data Production Techniques

With the objectives of a) strengthening research applied learning, as well as b) increasing the validity of the need diagnosis process, the Quan-Qual triangulation methods was used (Flick, 2014). These techniques were first taught in class sessions (see Table 1), and subsequently applied in field work. The teaching of these techniques was carried out flexibly, according to the times and characteristics of the respective sessions, considering for this: a) topics addressed and emerging in the field, b) willingness of students, c) characteristics of the classroom and the resources to be used, to mention a few aspects. Table 2 describes the techniques used with their respective purpose, justification and stage of use.

Table 2. Description of the techniques taught and applied by students for the diagnosis

Use context	Technique	Objective	Justification
Field	Narrative interview (Flick, 2007).	Know local history, such as the background and characteristics of the disaster.	First face-to-face approach to the community from a perspective.
Field	Drift (Pellicer et al., 2013).	Explore the spatial meanings and senses of the disaster.	Guided observation technique that territorialized the emerging narratives of the interview through a tour in the risk exposure area.
Practical application in the classroom	Participatory social mapping (Vélez et al., 2012)	Produce a map, on an area scale, of potential threats, vulnerabilities and security spaces for climatic hazards.	Dialogical technique that graphs spatial use and appropriation, in which exposed-susceptible and risk-safe locations are drawn.
Practical application in the classroom	Ecomap (Fernández et al., 2011).	Produce a relational map of social actors identifying the degree of perceived closeness or distance.	Ecological technique that graphs proximity, distance or absence relationships between community and public/private institutions throughout the disaster cycle.
Field	Sampling and application of psychosocial impact scales (Sandoval-Díaz & Cuadra-Martínez, 2020).	Apply quantitative sampling and data collection competences	Students applied a booklet of psychosocial scales prior to training. Later, they analyzed the results in a general way using descriptive statistics.
Classroom systematization	Capability and vulnerability matrix (Anderson & Woodrow, 1989).	Systematize the information collected, using a CVM matrix	At the group level, students had to systematize the information collected to develop a community diagnosis for a) physical-material, b) organizational and c) motivational areas.

Source: adapted from Sandoval et al. (2018).

3. Results

The results are presented in Tables 3 and 4, according to the specific objectives of the study, identifying both learning advantages and limitations in the areas i) theoretical-conceptual, ii) methodological, iii) practices and iv) ethical-policy of the diagnosis of community needs under SL.

Table 3. Advantages in the teaching-learning of psychosocial diagnosis under PHC

Theoretical conceptual	Methodological	Practical	Ethical-political
Application to a real situation of QUAN-QUAL data collection strategies reviewed only theoretically in previous subjects.	Awareness of the importance of the flexible design of the PAR (in terms of anticipation of uncontemplated emerging situations), which should not be confused with "spontaneous" or "voluntary" decisions.	Strengthening cross-cutting social skills, such as: A) teamwork, b) active listening, c) synthesis capacity, d) assertive communication, e) empathy and f) negotiation.	Awareness of the negative experience of the affected community, which goes beyond the contingency of the event.
Conceptual-empirical problematization in the face of the concrete problem addressed (rupture with the empiricism [affected as mere victims] or the imperialism of the theory [communities resilient to disaster]).	Development and procedural application of QUAN-QUAL strategies that are according to a problem of social relevance. The importance of the horizontal PAR for developing collaborative solutions.	Application of disciplinary knowledge through field work guided by a real problem.	Development of an investigative-reflective and implicative citizen positioning in the face of the problem.
Incorporation of group self-reflection processes which made possible not only the incorporation of student narratives but also the collective signaling of prejudices or obstacles to the process.	Strengthening methodological criticality, for example: (A) adequacy of the technique according to the characteristics of the target population; (b) relevance of the type of technique according to the nature of the data; b) Limitations of the design and/or format of instruments according to the context (problems in understanding the Likert scale in older adults and/or limited use of self-application scales in people who do not know how to read).	Continuous community feedback to incorporate strategies/procedures according to emerging needs.	Continuity with post-subject community work (some students are still linked with the community).

Source: Own elaboration

Table 4. Limitations on teaching-learning psychosocial diagnosis under SL

Theoretical conceptual	Methodological	Practical	Ethical-political
Brief approach on the interventional component of community disaster management, due to the limited times of the subject.	Lack of systematization and in-depth analysis of the data collected (both in statistical terms and in qualitative content), due to the limited times of the subject, and the previous methodological gaps (lack of knowledge to use the software).	Time limitation, in terms of six-monthly duration (only 13 sessions) as for the number of hours allocated (approx. two hours).	In some cases, there was low willingness and motivation on the part of the student, due to interest in other professional areas (e.g. clinical, work, educational).
Incompatibility between the professional competences taught and the competences deployed for the specific psychosocial problem, due to the characteristics of each context	Lack of incorporation of rigor and quality criteria of the techniques used.	Limitation of economic resources (transportation and technological materials for data collection) as well as human resources (both professors and the community). Part of the community is suspicious of the work of external organizations.	In some cases, incompatibility between the perceived needs of the community (who were mostly interested in housing reconstruction) and the needs to be met in the subject (psychosocial diagnosis).

Source: Own elaboration.

4. Discussion and conclusions

First, we positively value the use of SL in the teaching-learning process of community diagnosis in the face of disaster risk, identifying both advantages and limitations in the acquisition and development (i) theoretical-conceptual, (ii) methodological, (iii) practical and (iv) ethical-political skills of disciplinary and cross-cutting competencies at the professional level in social sciences.

In the teaching-learning process, these advantages are understood not only in the practical strengthening of skills, knowledge and attitudes, in terms of professional skills (CNA, 2015; Departamento de psicología, 2015; Juliá, 2013), but also in the heuristic replacement of different investigative techniques used for the diagnosis. In this regard, we stress the importance of expanding the practical horizons of conventional methodological teaching in university formative contexts, which only have meaning at the time of the thesis, without including disciplinary technical competences necessary for the development of

psychosocial diagnoses and interventions (Bassi, 2015; López-Noguero, 2017; Orellana-Fonseca et al., 2019). For this reason, with the SL methodology certain conceptual-abstract and investigative knowledge taught in the classroom are translated and transferred to a specific problematic situation, enabling not only the procedural management of the different techniques used [skill], but also a critical reflective self-analysis regarding its use [attitude] (Cuadra-Martínez et al., 2018).

Another important element to emphasize is the complement between active teaching strategies and applied and horizontal learning of the research process. Thus, SL allowed the student not only to have an approximation of the professional knowledge, but also to know the importance of the participatory horizontal characteristic of the PAR so as to enable real knowledge dialogues between experts and communities, as for ii) position the latter as a leading actor in self-managed and sustainable change processes over time (Stringer, 2008). In this way, students were able not only to contextually integrate the

theory and the practice —but also— to develop professional competences in the face of emerging society problems; the support provided was useful to the community, being a key factor in the processes of intersubjective change (Sandoval-Díaz et al., 2020). This complementarity could strengthen the SL methodology, reducing the limitations that occur when communities and interveners start from immeasurable assumptions about potential service.

With regard to the objective of the service for/with the community, a virtuous circle between pedagogical and social intentionality was achieved (Furco, 2011; Pizarro & Hasbún, 2019), enabling a continuous negotiation between the perceived community needs and the expected learning objectives, having as a clear viable goal the social diagnosis. However, although this pedagogical objective was achieved in the expected times, many of the emerging social needs of the developed service could not be addressed, given that some corresponded to the physical-material dimension of the reconstruction of housing and public space, as well as institutional decisions emanating from local governments (risk mitigation strategies (Anderson & Woodrow, 1989). Another outstanding aspect was the incorporation of interventional strategies for the reduction of territorial social vulnerability (Freire, 2012), as well as the empowerment and strengthening of resilient capacities (Sandoval et al., 2018).

In terms of limitations, according to the SL quadrants of Stanford University's Service-learning Center, our pedagogical experience was closer to a mix of field work and community service, due to the absence of the feedback component from the community due to the factors of (i) limited temporality of the intervention, (ii) incipient but non-systematic articulation between interveners and collaborating partners, (ii) low territorial implication and empowerment and (iii) high distrust of external actors. In addition to these constraints are the lack of adequate material and human assets for medium-scale intervention, as well as the absence of government actors, which were key to decisions and times for post-disaster reconstruction (Mayor, 2019). Therefore, future work should incorporate the proposal stated in the Sendai Framework for Action (2015), under which:

> Community-based organizations should participate, in collaboration with public institutions, inter alia, to provide specific knowledge and pragmatic guidance in the context of developing and implementing standards policy frameworks and plans for DRRS. (UNDRR, 2015, p. 23)

Therefore, improving capacities requires a transfer of power to the benefit of the local population by recognizing them as informed, skilled and ingenious actors (Gaillard et al., 2019). However, despite this limitation, from a professional training point of view, this exploratory pedagogical experience made it possible to go beyond conventional disaster-centered approaches, enabling us to enter into local anticipation, response and recovery in the face of climate risks, under the pragmatic articulation of different investigative-interventional strategies (Anderson & Woodrow, 1989; Sandoval et al., 2018). In summary, we affirm the use of SL as a participatory methodology for the strengthening not only of professional-disciplinary competences, but also of transversal competences, such as critical thinking, teamwork and citizen sensitivity (Muñoz-Arce et al., 2017; Ortega, 2015), according to the type of integral university formation required by emerging complex psychosocial problems (Morin, 2016).

Notes

1   Chile considers cross-cutting competences the oral and written communication skills, problem solving, teamwork, ethical commitment, creativity, leadership, among others (CNA, 2015 p. 5)

2   MECESUP ULS 0601 Project "Improving the general and specific training of professional psychologists of the universities of the state (CUECH) by designing and implementing a competency-based curriculum framework".

3.   Project MECESUP ULS 0601 "Improvement of training general and specific of the professional psychologists of the consortium

of the state universities (CUECH) through the design and implementation of a competency-based curriculum framework ".

4. A case is a spatially delimited phenomenon (or unit), observed at a single point in time or over a certain period of time (Gerring, 2007 p.19).

5. Use of different techniques that are framed in methods of different research, and are combined to analyze the same object of study with the aim of increasing research quality.

References

Anderson, M., & Woodrow, P. (1989). *Rising from the ashes: development strategies in times of disaster.* Westview Press.

Astudillo-Pizarro, F., & Sandoval-Díaz, J. (2019). Justicia espacial, desastres socionaturales y políticas del espacio. Dinámicas sociopolíticas frente a los aluviones y proceso de recuperación en Copiapó, Chile [Spatial Justice, Socio-Natural Disasters, and Spatial Policies: Sociopolitical Dynamics in view of the Floods and Recovery Processes in Copiapó, Chile]. *Cuadernos de Geografía: Revista Colombiana de Geografía, 28*(2), 303-321. https://doi.org/10.15446/rcdg.v28n2.73520

Aguilar-Idañez, M., & Ander-Egg, E. (2001). *Diagnóstico social: Conceptos y metodología.* Lumen.

Barrón-Tirado, M. (2009). Docencia universitaria y competencias didácticas [Teaching at the University and educational competences]. *Perfiles educativos, 31*(125), 76-87. https://doi.org/10.22201/iisue.24486167e.2009.125.18849

Bassi, J. (2015). *Formulación de proyectos de tesis en ciencias sociales. Manual de supervivencia para estudiantes de pre-y posgrado.* FACSO/ El buen aire.

Claire, M., Dintrans, P., Santander, G., & Valenzuela, G. (2019). Aprendizaje servicio: Origen y trayectoria en Chile. Red Nacional de aprendizaje servicio Chile. En V. Pizarro & B. Hasbún, B. (Eds.), *Aprendizaje-Servicio en la Educación Superior Chilena.* Ediciones CEA-FEN Universidad de Chile. https://bit.ly/3ad0EWE

Cuadra-Martínez, D., Castro, P., & Juliá, M. (2018). Tres saberes en la formación profesional por competencias: Integración de teorías subjetivas, profesionales y científicas [Three Types of Knowledge in Competency Based Professional Education: The Integration of Subjective, Professional, and Scientific Theories]. *Formación universitaria, 11*(5), 19-30. https://dx.doi.org/10.4067/S0718-50062018000500019

Comisión Nacional de Acreditación de Chile [CNA]. (2015, octubre). *Glosario de términos complementarios criterios de acreditación de pregrado.* https://bit.ly/2IQ1cGG

De Castro, A., & Domínguez, E. (2018). *Transformar para educar 6: Aprendizaje servicio.* Editorial Universidad del Norte. https://bit.ly/2JXaqlb

Departamento de Psicología UDA (s.f.). *Malla curricular de psicología.* https://bit.ly/2Kpjv6a

Departamento de Psicología UDA (2015, Julio 9). *Definición de la carrera.* https://bit.ly/389LoY3

Dewey, J. (1985). *Democracia y escuela.* Eumo.

Fernández, J., Escalante, E., & Richard, F. (2011). Revisitando algunas herramientas de evaluación sistémica [Revisiting some tools of systemic evaluation]. *Psicoperspectivas, 10*(1), 190-208. https://bit.ly/3gNkmcV

Flick, U. (2007). *Introducción a la investigación cualitativa.* Morata.

Flick, U. (2014). *La gestión de la calidad en la investigación cualitativa.* Morata.

Freire, P. (2012). *Pedagogía del oprimido* (2ª ed.). Siglo XXI.

Furco, A. (2011). El aprendizaje-servicio: un enfoque equilibrado de la educación experiencial [Service-Learning: A Balanced Approach to Experiential Education]. *Revista Educación Global, 0*, 64-70. https://bit.ly/2K01zPI

Gaillard, J., Cadag, J., & Rampengan, M. (2019). People's capacities in facing hazards and disasters: an overview. *Natural Hazards, 95*(3), 863-876. https://doi.org/10.1007/s11069-018-3519-1.

García-Lirios, C., Carreón-Guillén, J., & Hernández-Valdés, J. (2014). La formación profesional de capital humano en la civilización del cambio climático [Vocational training in human capital civilization of climate change]. *Revista Internacional de Investigación en Ciencias Sociales. Revista Internacional de Investigación en Ciencias Sociales, 10*(1), 107-125. https://bit.ly/3oRTWJO

Gerring, J. (2007). What is a case study and what is it good for? *American Political Science Review, 98*(2), 341-354. https://doi.org/10.1017/S0003055404001182

Griselda-Günther, M., & Gutiérrez, R. (2017). *La política del ambiente en América Latina. Una aproximación desde el cambio ambiental global*. CLACSO.

Intergovernmental Panel on Climate Change [IPCC]. (2014). *AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Cambridge University Press.

Izquierdo, T., Abad, M., Justo, B., Bernárdez., E., & Arancibia, M. (2018). El evento hidrometeorológico del 25M en la ciudad de Copiapó: análisis de la inundación y los daños en el casco urbano. En G. Vargas, S. Pérez & P. Aldunce (Eds.), *Aluviones y resiliencia en atacama: construyendo saberes sobre riesgos y desastres* (pp. 117-135). Social-Ediciones.

Juliá, M. (2013). *Competencias del psicólogo en Chile: Propuesta desde las universidades estatales*. Editorial Universidad de La Serena.

López-Noguero, F. (2017). *Metodología participativa en la enseñanza universitaria*. Ediciones de la U.

Matus, T. (2002). *Propuestas contemporáneas en trabajo social: hacia una intervención polifónica*. Espacio Editorial

Mayor, D. (2019). Dimensiones pedagógicas que configuran las prácticas de aprendizaje-servicio [Pedagogical Dimensions that Configure Service-Learning Practices]. *Páginas de Educación*, *12*(2), 23-42. https://dx.doi.org/10.22235/pe.v12i2.1834

Montes, R., Tapia, M., & Yaber, L. (2011). Manual para docentes y estudiantes solidarios. CLAYSS. https://bit.ly/37ni8hn

Morin, E. (2016). *Enseñar a vivir: Manifiesto para cambiar la educación*. Paidós.

Muñoz-Arce, G., Hernández-Mary, N., & Véliz-Bustamante, C. (2017). La relación entre investigación e intervención social: voces desde el trabajo social chileno [The relationship between research and social intervention: voices from chilean social work]. *Trabajo Social Global. Revista de Investigaciones en Intervención Social, 7*(12), 3-24. https://bit.ly/3gQXmcN

Orellana-Fonseca, C., Salazar-Jiménez, R., Farías-Olavarría, F., Martínez-Labrin, S., & Pérez-Díaz, G. (2019). Valoraciones que estudiantes de un posgrado de profesión docente tienen sobre la formación en metodología de la investigación recibida en el pregrado y su uso en la práctica docente [Postgraduate Teaching Students' Evaluation of the Training in Research Methodology Received During Their Degree, and its Use in Teaching Practice]. *Revista Electrónica Educare*, *23*(1), 342-366. https://dx.doi.org/10.15359/ree.23-1.17

Ortega, M. (2015). Trabajo social como transdisciplina: hacia una teoría de la intervención [Social work as transdiscipline: towards a theory of intervention]. *Cinta de moebio*, (54), 278-289. https://dx.doi.org/10.4067/S0717-554X2015000300005

Pellicer, I., Vivas-Elias, P., & Rojas, J. (2013). La observación participante y la deriva: dos técnicas móviles para el análisis de la ciudad contemporánea. El caso de Barcelona [a observación participante y la deriva: dos técnicas móviles para el análisis de la ciudad contemporánea. El caso de Barcelona]. *EURE, 39*(116), 119-139. https://doi.org/10.4067/S0250-71612013000100005

Pizarro, V., & Hasbún, B. (2019). *Aprendizaje Servicio en la Educación Superior Chilena*. Ediciones CEA-FEN Universidad de Chile. https://doi.org/10.34720/WCC5-5184

Ricardo, D., Guerra, M., Morales, C., & Rifa, J. (2019). La Universidad y la educación para el cambio climático [The university and the education for the climate change]. *Humanidades Médicas, 19*(3), 427-442. https://bit.ly/3r0JeCI

Rodríguez, M. (2014). Aprendizaje-Servicio como estrategia metodológica en la Universidad [Service-learning as a methodological strategy at University]. *Revista Complutense de Educación, 25*(1), 95-113. https://doi.org/10.5209/rev_RCED.2014.v25.n1.41157

Sánchez, L., & Reyes, O. (2015, diciembre). *Medidas de adaptación y mitigación frente al cambio climático en América Latina y el Caribe. Una revisión general*. Estudios del Cambio Climático en América Latina. CEPAL. https://bit.ly/3aejY5O

Sandoval-Díaz, J. (2020). Vulnerabilidad-resiliencia ante el proceso de riesgo-desastre: Un análi-

sis desde la ecología política [Vulnerability-resilience to the risk-disaster process: An analysis from the political ecology]. *Polis (Santiago), 19*(56), 214-239.
https://dx.doi.org/10.32735/s0718-6568/2020-n56-1527

Sandoval-Díaz, J., & Cuadra-Martínez, D. (2020). Vulnerabilidad social, severidad subjetiva y crecimiento postraumático en grupos afectados por un desastre climatológico [Social vulnerability, subjective severity and post-traumatic growth in groups affected by a climate disaster]. *Revista de Psicología*, *29*(1), 1-15.
https://dx.doi.org/10.5354/0719-0581.2020.58002

Sandoval-Díaz, J., Cuadra-Martínez, D., Palacios-Díaz, D., & Ligueño-Espinoza, S. (2020). La investigación-acción como promotora de la formación ciudadana en/desde la escuela: tres propuestas investigativas-interventivas. En C. Orellana., R. Salazar & V. Hasse (Eds.), *Formación ciudadana en la escuela: conceptualización, herramientas de intervención socioeducativa y propuestas didácticas* (pp. 173-191). Ril Editores.

Sandoval., J, Rojas, L., Villalobos, M., Sandoval, C., Moraga, F., & Aguirre, N. (2018). De organización vecinal hacia la gestión local del riesgo: diagnóstico de vulnerabilidad y capacidad [From the local organization towards local risk management: diagnosis of vulne-rability and capacity]. *Revista INVI, 33*(92), 155-180.
http://dx.doi.org/10.4067/S0718-83582018000100155

Stringer, E. (2008). *Action research in education* (2nd ed.). Pearson Prentice Hall.

Vélez, I., Rátiva, S., & Varela, D. (2012). Cartografía social como metodología participativa y colaborativa de investigación en el territorio afrodescendiente de la cuenca alta del río Cauca [Social Cartography as a Participative and Collaborative Research Methodology in the Upper Basin of the Cauca River]. *Cuadernos de Geografía, 21*(2), 59-73.
https://doi.org/10.15446/rcdg.v21n2.25774

Wendler, R. (2012). Human subject's protection: A source for ethical service-learning practice. *Michigan Journal of Community Service Learning, 2*(18), 29-39.
https://bit.ly/34dhQY8

UN Office for Disaster Risk Reduction [UNDRR]. (2015). *Sendai Framework for Disaster Risk Reduction 2015–2030*. UNDRR.
https://bit.ly/3oS2TCU

UN Office for Disaster Risk Reduction (2019 enero 23). *2018: 60 millones de personas resultaron afectadas por diversos eventos meteorológicos extremos*. https://bit.ly/3oUa1hZ

United Nations Educational, Scientific, and Cultural Organization [UNESCO]. (2015). *Not just hot air: Putting climate change education into practice*. UNESCO https://bit.ly/3nr7LP2

Service-Learning in the teaching of Sociology for future teachers

Aprendizaje-servicio en la enseñanza de la Sociología a futuros docentes

Dra. Paloma Candela-Soto is a professor at researcher at Universidad de Castilla-La Mancha (Spain) (Paloma.Candela@uclm.es) (https://orcid.org/0000-0002-4857-8747)

Dra. María Carmen Sánchez-Pérez is a professor at researcher at Universidad de Castilla-La Mancha (Spain) (Mariacarmen.Sanchez@uclm.es) (https://orcid.org/0000-0002-7195-7446)

Dra. Mercedes Ávila-Francés is a professor at researcher at Universidad de Castilla-La Mancha (Spain) (Mercedes.Avila@uclm.es) (https://orcid.org/0000-0003-4253-4345)

Abstract

This paper reflects and gives an account of the Service-Learning (S-L) contributions to university teaching and, more specifically, to the initial teacher training. It is part of an innovation project carried out in the Faculties of Education in the University of Castilla-La Mancha (UCLM). It deepens into students´ perceptions about S-L benefits for academic and skill learning. It also studies students' experiences at schools, where they were able to observe and apply their theoretical learning. Some of the objectives guiding this study are to assess the Degree skills acquisition, their ability to understand social problems that they will have to face in their professional future, as well as the feelings and emotions experienced. This empirical mixed methodology study (by an online questionnaire and student narratives analysis) reaches a 167 students sample. Results verify their high level of satisfaction with the S-L project, especially in those variables linked to the professional and personal skills, highlighting the critical and reflective skills that promote a significant learning in Sociology. All in all, this study verifies the renewing power of S-L in higher education, as this methodology effectively adapts to future teachers´ competence and training performance.

Keywords: Service-Learning, Sociology of Education, teaching innovation, professional skills, students' perceptions, university social responsibility.

Resumen

Este artículo reflexiona y hace balance de las contribuciones del aprendizaje-servicio (ApS) a la docencia universitaria y, en concreto, a la formación inicial del profesorado. A partir de la evaluación de un proyecto de innovación docente llevado a cabo en las Facultades de Educación de la Universidad de Castilla La Mancha (UCLM), se profundiza en la percepción de los estudiantes sobre la utilidad del ApS en el aprendizaje académico-competencial y en las experiencias vividas en escenarios escolares reales donde han observado y aplicado sus aprendizajes teóricos. La valoración de la adquisición de competencias concretas del Grado, la disposición y desempeño para comprender problemas sociales que deberán afrontar en su futuro profesional, así como los sentimientos y emociones experimentadas, son algunos de los objetivos que guían nuestro trabajo. Se trata de un estudio empírico de metodología mixta, mediante un cuestionario online y el análisis de las narraciones reflexivas de los estudiantes con una muestra de 167 alumnos y alumnas. Los resultados revelan la elevada satisfacción del alumnado participante, especialmente en variables vinculadas con la adquisición de competencias profesionales y personales, destacando las destrezas críticas y reflexivas que favorecen el aprendizaje significativo de la Sociología. Con todo, la investigación corrobora el carácter renovador del ApS en la enseñanza superior, una metodología que se adapta con idoneidad al desempeño competencial y formativo de las futuras maestras y maestros.

Descriptores: Aprendizaje-Servicio, Sociología de la Educación, innovación docente, competencias profesionales, percepciones de los estudiantes, responsabilidad social universitaria.

1. Introduction

This article is part of the results obtained in the educational innovation project developed by the faculties of Education of the University of Castilla-La Mancha (UCLM), aimed at implementing the methodology of Learning-Service in the training of future teachers. Since its beginning (academic year 2017-18), the project has been formed by professors of the Sociology area in the grades of kindergarten and Elementary School. The project aimed to give subjects a more practical content, offering students the possibility of participating in altruistic projects in real learning contexts, which contribute to social transformation and the welfare of the community. At the same time, it sought to promote an ethical and moral relationship between students and the environment. This Learning-Service Project (hereinafter S-L) is based on the essential importance that competences such as teacher innovation, university social responsibility, academic quality and ethics have in the training of future and future education professionals (Pérez-Gómez, 1993). Over the three-year journey of the project, involving more than three hundred students of first and second grades and twenty teachers, and the motivation and sense of learning represented by S-L has been observed, bringing future teachers and teachers a closer idea of real scenarios where they observe and apply the theoretical learning of the subjects involved.

From Sociology, the objectives were directed to identify and reflect on situations of inequality in the school context; analyze the impact that education has on society and vice versa; and identify the social processes, all this from a dual learning: Academic and experiential. Hence, the acquisition of competences and content in Sociology, as well as the development of skills associated with the foundations of thought and sociological action focus the interest of our study.

S-L methodology, after a process of development and consolidation (Tapia, 2008), has a

relative institutionalization, as evidenced by the numerous national and international networks spread across the different continents, as well as the congresses, events and specific publications. Furco (2004) indicates the existence of more than two hundred different definitions of S-L published in English and Tapia (2014) identifies S-L as those practices that simultaneously meet at least three of the following characteristics: the provision of a solidarity service to the community, the participation of the students in the execution of the project, a clear articulation of activities in solidarity with the learning and the application of knowledge and explicit curricular competences.

Thus, the renewal potential of S-L has influenced university teaching, providing it with an educational model that combines the training of quality professionals and active citizens, capable of contributing to the improvement and transformation of society. In its commitment to quality academic training, which goes beyond learning content and developing skills, it incorporates the concern to educate the student in a real and social context, training him/her to analyze the social, ethical and citizen impact of the exercise (Rubio & Escofet, 2017, p. 20; Gutiérrez & Moreno, 2018). It is also proposed as a suitable methodology for working on the competences (Ferrán-Zubilaga & Guinot-Viciano, 2012).

The work presented focuses on two essential aspects: The contribution of Sociology to the initial training of teachers and its interrelationship with S-L. This is a very genuine and important contribution, as there is little information in this area.

The general objective has been to know the perception the students of UCLM Master Degree have on the contributions of S-L to their initial teacher training, starting from the professional competences and learning that teachers will face in the future. More specifically, the following areas were investigated: (1) their perception of the contribution of the S-L methodology to the learning of Sociology of Education; (2) to what extent they perceived that the skills employed by

the S-L methodology may favor the acquisition of teacher´s competences (in particular, those related to the teamwork and the development of personal and professional skills); (3) the feelings associated with their S-L experience and (4) the overall satisfaction of students with the S-L project.

Although Sociology has a superficial presence in the curricula of current degrees of education, many analyses and specialists highlight its valuable contribution to the teacher training (McNamara, 1972; Daine & Foster, 1976, in Loubet-Orozco, 2018, p. 9; Perrenoud, 2002; Guerrero-Serón, 2007; Venegas, 2012). Authors such as Dewey defend the relevance of Sociology and, in particular, the Sociology of Education, and they agree in the critical and reflective attitude that it has in students who study education. Guerrero Serón (2007) considers the training of the teaching staff as a natural destination of the Sociology of Education, since it is an essential knowledge that gives the students "the theoretical and analytical instruments that allow them to understand and act on the social context where they are being formed and where they will work" (p. 10).

The main purpose of the Sociology subject is to understand the school-society interrelationship, paying attention to the basic variables of social inequality: Class, gender and ethnicity, as required by the regulations governing the teacher curricula. From this point of view, "sociological imagination" (Mills, 1959) is considered an essential quality to which all people have access, allowing us to realize that our way of thinking and acting individually is conditioned by the position we occupy in society (Obiol i Francés et al., 2019, p. 1086). Indeed, as stated by these authors, it is a basic competence in the training of future teachers and teachers, as it contributes to the training of reflective and critical teachers.

In the education career, the subjects of Sociology are usually placed in the first courses, as part of the basic training, being part of a module of competences called "Society, family and school". In UCLM curricula, this module is divided into two subjects of six credits each, enti-

tled "Sociology of Education" and "Education and Society", taught in first and second courses respectively. We highlight the following competences related to this subject: 1) relating education to the environment; 2) analyzing and critically incorporating the most relevant issues of today's society affecting family and school education, highlighting the social and educational impact of audiovisual languages, changes in gender and intergenerational relationships, multiculturalism and interculturality, discrimination and social inclusion and sustainable development; 3) knowing the historical evolution of the family, the different types of families, lifestyles and education in the family context.

The competences that are set for the education career are derived from various regulations. The Royal Decree of 2007, which regulates the organization of official university teachings, states that:

> Training in any professional activity must contribute to the knowledge and development of human rights, democratic principles, equality between women and men, solidarity, environmental protection, universal accessibility and the promotion of the culture of peace (art. 3).sal y de fomento de la cultura de la paz. (art. 3)

Order ECI/3857/2007 of December 27, which establishes the requirements for the verification of official university degrees that enable the practice of the teaching profession in Elementary school, poses the need for "regular learning spaces that are respectful of human rights to collaborate with the educational community to promote education for active citizenship and to promote responsibility for a sustainable future" (art 3). The order ECI/3854/2007 for Early Childhood Education also includes "the development of the competence oriented to group reflection, acceptance of norms and respect for others" (art. 3), among other aspects.

S-L by combining academic learning with the provision of community service oriented

toward its transformation and improvement, is an ideal methodology for developing the above competences. But to what extent does participation in S-L projects favor the development of the skills in the career? Table 1 shows the strong relationship between the competences of the career and, more specifically, the subject of Sociology of Education, with the S-L methodology in Elementary school.

Table 1. Competences of the Education career related to S-L and Sociology

Principles that should inspire university degrees. RD 1393/2007, art. 3.5	General competences that students must acquire (related to the S-L). Order ECI/3857/2007, Annex, Paragraph 3	Competences of the Society, Family and School module (related to Sociology and the S-L project). Order ECI/3857/2007, Annex, Paragraph 5
• Respect fundamental rights and equality between men and women. • Promote human rights and the principles of universal accessibility. • Contribute to the values of a culture of peace and democratic values.	• Design and regulate learning spaces in contexts of diversity addressed to gender equality, equity and respect for the human rights that make up the values of citizens. • Collaborate with the different sectors of the educational community and the social environment. Assume the educational dimension of the teaching function to promote democratic education for an active citizenship. • Value individual and collective responsibility in the achievement of a sustainable future.	• Relate education to the media. • Cooperate with families and the community. • Analyze and incorporate the most relevant issues of today's society affecting family and school education: Social and educational impact of audiovisual languages; changes in gender and intergenerational relationships; multiculturalism and interculturality; discrimination and social inclusion and sustainable development.

Source: Own elaboration from ORDER ECI/3857/2007 of December 27 and Royal Decree 1393/2007 of October 29.

This formative performance from Sociology seeks to place students in the educational processes and in the challenges they will face in their professional future (Trottier & Lessard, 2002, cited in Venegas, 2012, p. 407). This purpose is the main basis for the subject Education and Society, taught in the second course of the career. In its curriculum, the subject of Sociology introduces students to the basic principles of social research, familiarizing them with the methodological principles, approaches, categories and most common techniques in education. In connection with this exploratory learning, current social issues related to the educational and family environment are explored and examples of specific studies are presented, seeking to show students the balance between research and its professional application. Hence, S-L projects developed included a wide range of actions, aimed at responding to the demands made by the collaborating schools: support to literacy in Spanish and English, dynamization of recreations, inclusive courtyards, interactive groups, promotion of equality, school support, healthy education, library dynamization, storytellers, etc.

Thus, a learning for students who have participated in S-L experiences has been the discovery (or awareness) of beliefs, prejudices or preconceptions that we as professors create

on the student. To confront the meritocracy of teaching thought and its implications as predictors of academic achievement is a necessary learning to unmask the social construction of these judgments or representations that, as we know, the teachers begin to internalize in the initial formation (Tarabini, 2015; San Román et al., 2015; López-Gamboa, 2019; Kaplan, 2012; Brozmanová et al., 2016). Hence its potential in the training of university professors (Álvarez-Castillo et al., 2017).

It is precisely in this real context offered by the S-L that the meaning of the concepts, ideas and theories that allow to move in the formation of practical thinking of the students, "where they construct resources of understanding and act as apprentices" (Pérez-Gómez, 2010, p. 48), and it will be confirmed later with the most relevant results of the qualitative exploration carried out, as expressed by its protagonists: the students.

2. Methodology

The study has a mixed approach, combining the collection of quantitative data (via online questionnaires) and qualitative data (through the narratives of experiences in the memories presented by students for the evaluation of the subject). Therefore, it is mainly descriptive.

The sample is set up by the university students of the UCLM's Faculty of Education, who studied the subjects of Sociology of Education in the first course and Education and Society in the second of the degree in Primary Education, in the academic courses 2018/2019 and 2019/2020.

The questionnaires were addressed to first-year students, while the reflective memories were addressed to second-year students with more experience in the field of Sociology.

Regarding the questionnaire, all students involved in the S-L project were invited to participate through the Moodle platform of the subjects (Virtual Campus UCLM), reaching a response rate of 47% (117 students).

The sample chosen for the qualitative analysis of the memories has been intentional, selecting those focused on the contents that best fit the objectives of the research. The memories of fifty students have been analyzed.[1]

Table 2. Sample of the UCLM Degree in Primary and Early Childhood Education

Online quiz	117
Reflexive narratives	50
Total	**167**

Source: Own elaboration from study data.

Previous studies were taken as reference in the design of the questionnaire (Capella et al., 2014; Campo, 2015; Folgueiras et al., 2013). It was composed of 21 questions, aimed at collecting information on organizational issues, group work, involvement, relationship with the subject and opinion on aspects linked to it, along with the perception of lived feelings and satisfaction with the S-L project, using a 5-point Likert-type rating scale (being 1 very little and 5 a lot).

Regarding the qualitative contribution of the productions written by the participating students, the use of reflective memorials or portfolios, among other evaluative modalities, are common techniques in similar research (Folgueiras, 2017; Loubet-Orozco, 2018). The aim was to obtain perceptions and experiences that would complement quantitative analysis and allow for further discussion of the aspects of interest. As presented below in the testimonials selected to support the results of the questionnaire, students reflect on the personal experience (individual and group), and they are aware of the observed social situations and contexts and iden-

tify the academic (theoretical-practical) learning in the framework of the Education and Society. Therefore, there are three fundamental axes that combine students' perceptions with theoretical thinking and practice.

The analysis of the questionnaire data was carried out using SPSS Statistics 24 program. For the qualitative analysis, Atlas.ti 8 program was used.

the connection between the development of the project and the contents of the subject of Sociology of Education. Figure 1 shows a high ratio of both being perceived by students with more than 50%, being at the highest score (5). The average assessment of this aspect in the course of 2018/2019 is 4.27 out of 5 (DT: 0.895), increasing slightly in the course of 2019/2020 (mean: 4.37; DT: 0.814).

3. Results

One of the first questions raised in this study was to what extent students perceived

Figure 1. Assessment of the S-L relationship with the subject according to the students
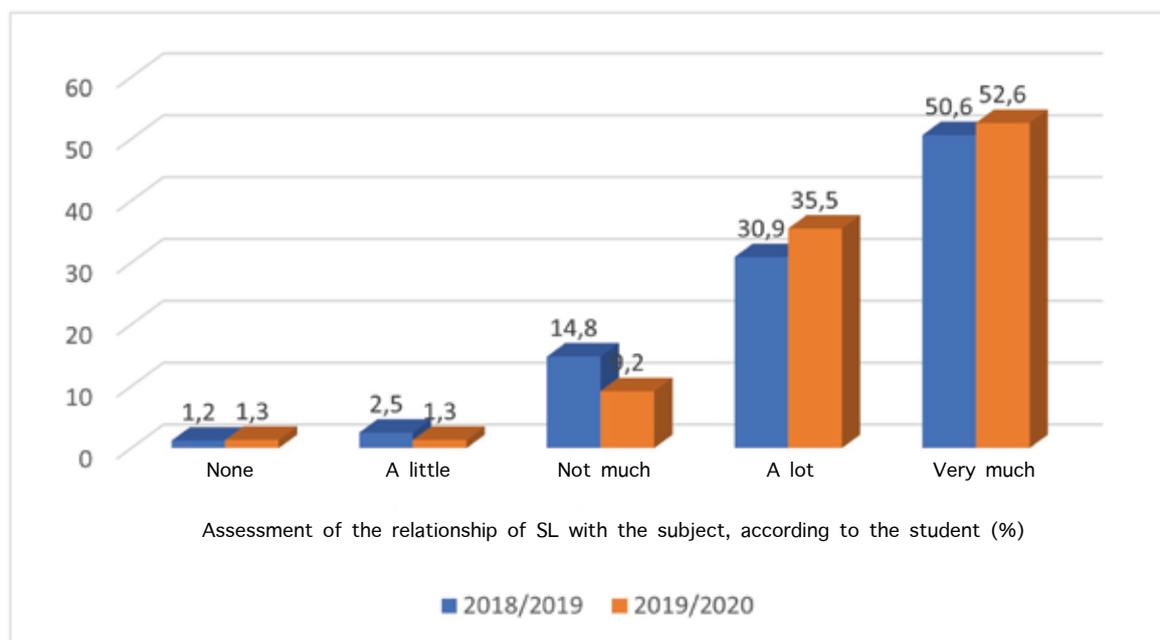
Source: Milla (2020, p. 18).

Students mention that their S-L experience has helped them to better understand the subject's content (mean: 3.93; D: 1.024) and, especially, to find a better relationship between the theory, the practice (mean: 4.14; D: 0.989) and the daily life (mean 4.43; D.T.: 0.869).

Figure 2. Relationship of S-L with the theory, the daily life and the contents. Course 2019/2020
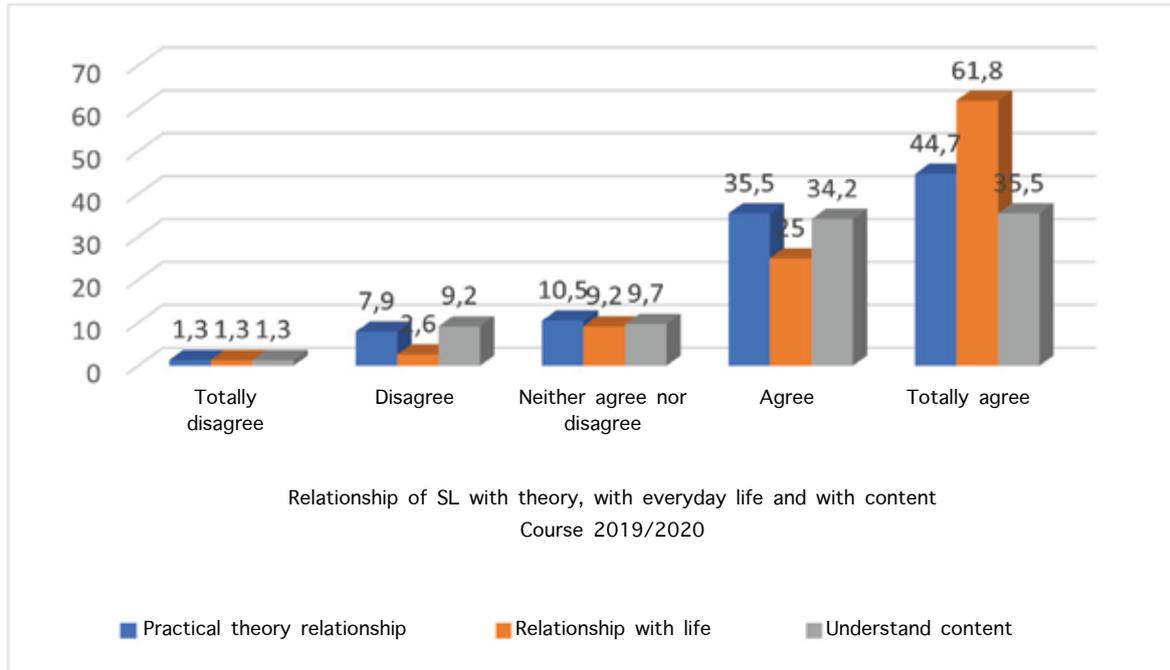
Source: Milla (2020, p. 18).

In the same way, the results of qualitative exploration show the effectiveness of the experience in identifying and understanding sociological problems, based on the observation of real situations in the school context. The meeting with social inequalities, cultural diversity and gender inequality has an influence in the reflections of students:

> We have seen children and families with difficult social and economic situations, as there are a large number of migrant refugee students. This has made me see life from another perspective, we have to challenge ourselves in order to be able to address the needs that arise and not to play safe, since all of us have the right to be educated. (M-4)

> In the case of gypsy culture, my experience in L-S has surprised me and I must say that it has helped me to clarify certain aspects of their way of living life, their education and their culture in general. Society sets them very strict rules and as people, we must be able to prioritize the interior of our peers and give an opportunity to know the experiences of each person. (M-13)

> (…) having worked with gipsy children, and see that they are like the others, with the same imagination, creativity and ability to learn. (M-18)

> We observed that sexism is very present in the classroom, and girls did not want to relate to a boy who was approaching them because they said that he was a boy. I tried to mediate by making them see that they did not have to discriminate him by being a boy, that they were all equal, regardless the sex. (M-22)

We note from the testimonies gathered, that the situations experienced in the implementation of the S-L projects have favored reflective practice as a tool of teaching work in the classroom. It should be recalled that this methodology has been theorized and disseminated

as a training model for teaching professionals (Domingo, 2013; Lupión-Cobos & Gallego-García, 2017) and for the educational change (Mayor & Rodríguez, 2016).

> Experience has provided us knowledge from various perspectives to develop our critical, abstract, reflective and innovative thinking, to understand what is happening inside and outside school. It has helped us to relate concepts, learn new methodologies, taxonomies related to learning processes and cognitive skills, assessment and needs for change in the educational field… (M-9)

> The yard is an essential space in the school context and especially in Early Childhood Education. Recreational time is when children have more freedom to play, explore, move and relate to their peers. We have seen this and understood it with the S-L active recreation activity. (M-27)

Another sample of the value of the S-L project in student training is shown in the high scores given by the students' responses, when they are asked about the possibility of including this methodology in other subjects 81.6% strongly agree (Mean 4.75, D.T.: 0.635), as with this experience they have been strengthened their vocation (73.7% strongly agree, Mean 4.58; D.T.: 0.868).

Thanks to the development of the S-L activity, students perceive a development of their own knowledge by connecting previous learning with new contents (mean 4.41; D.T.: 0.836), a greater motivation toward the subject (76.3% agree or strongly agree; mean 4.04; D.T.: 0.916) and, to a lesser extent, increased attention (mean 3.71; D.T.: 1.056).

With regard to the development of competences linked to the S-L experience, the assessments are also high, both for professional competences (57.9% strongly agreed; average 4.37; D.T.: 0.877) and for cross-cutting competences (53.9% strongly agreed, average 4.30 and D.T.: 0.924).

Almost 54% of respondents believe they would not have learned more if the time spent on S-L had been spent by teaching in the classroom.

Other important aspects are their assessment of the contribution of S-L to understanding its role as future teachers (Mean 4.50; D.T.: 0.887) and their acquisition of knowledge about how an educational center works (Mean 4.47; D.T.: 0.774).

In short, the usefulness of the S-L experience in his/her teacher training is highlighted, giving an average rate of 4.71 out of 5 (D.T.: 0.670) and that is reflected in these words, expressed by a student:

> (…) The role of the teacher is not limited to imparting knowledge to his/her students, but it goes far beyond education, since the professor has to be a guide and mediator in times of conflict or complex situations… not always in a favorable context. Hence, the school must act and provide the student the necessary tools to ease the situation possible and to implement all the techniques possible to improve the situation. (M-4)

Taking a step further, we consider deepening the contributions of the S-L project to the acquisition of specific professional competences: those related to the teamwork and the development of personal skills. It is noted that these are highly valued by most students and that they also show a positive correlation with overall satisfaction with the S-L project.

It should be said that part of the success in the development of these activities is related to the good functioning of the team work mentioned by the students (mean 4.59, D.T.: 0.677) and which shows a significant correlation with the expressed satisfaction (bilateral at 0.01; r^2: 0.252). The assessments presented in the memories also emphasize cooperation and teamwork as one of the lessons learned:

> We were working cooperatively in a group every day, and this caused and facilitated the

proposal for S-L to be more effective, dynamic, motivating and productive. (M-31)

S-L has been a very practical and reflective subject, which helped us learn from our mistakes, to self-evaluate ourselves in a critical way, as well as learning to work as a team and increase creativity. (M-11)

As stated, the evaluation shows that participation in these projects favors their training in the knowledge necessary for their professional future. As Uribe (2018) points out, this is one of the essential aspects that derive from the conduction of these activities. Specifically, S-L benefits the training as teachers, linking their learning with life, developing their own emotional competence (Ibarrola-García & Artcuh, 2016; García & Sánchez, 2017) and therefore strengthening their vocation.

Part of these learning comes from the development of competences linked to their personal skills. When students were asked about the emotional perceptions in developing their S-L experience, most of them said they were very interested, excited, satisfied, active, enthusiastic, focused, awake, inspired and strong.

To a lesser extent, they were nervous and give the lowest average scores to "negative" emotions, such as irritability, fear, anguish, etc. The following table shows an order of the ratings given to each feeling.

Tabla 3. Valoración de los sentimientos en los participantes del ApS. Curso 2019/2020

Interested	Mean (1-5)	D.T.
Excited	4,78	0,479
Satisfied	4,7	0,589
Active	4,57	0,806
Happy	4,54	0,642
Concentrated	4,47	0,856
Awake	4,29	0,780
Decided	4,11	0,918
Inspired	4,01	0,902
Strong	4	1,143
Nervous	3,93	0,971
Affected	2,33	1,076
Hectic	1,76	1,082
Scared	1,64	0,919
Angustiated	1,58	1,036
Fearful	1,46	0,807
Ashamed	1,43	0,806
Guilty	1,37	0,780
Irritable	1,28	0,704
Aggressive	1,24	0,586
Agresivo	1,12	0,431

Therefore, it can be said that this experience is a source of positive, stimulating sensations and professional and personal development for the students of the career. This first contact with the educational reality at the beginning of the career means a remarkable experience for the students (Milla, 2020). All this leads to a high overall satisfaction with the S-L project. 60.5% of students in the 2028-19 academic year give the highest score on this issue (mean: 4.43; DT: 0.805), increasing to 73.7% in the 2019-20 academic year (mean: 4.67; D.T.: 0.619).

In a gender analysis, no statistically significant differences related to expressed satisfaction have been found (Kolmogorov-Smirnov test: p: 439; effect size: D Cohen: 0.18), while many students express this satisfaction in their speeches on "Education and Society" at the Childhood Education Career, where all participants are women:

> S-L has helped me know myself and know the things I need to improve in my teaching performance. (M-23)

> This experience has been very rewarding, not only have we learned, but we have also been able to help. (M-11)

> (…) I consider this experience to be a professional enrichment and a great satisfaction for helping (…). (M-4).

4. Discussion and conclusions

Our research findings have shown the methodological possibilities of S-L in initial teacher training, combining learning from academic content with a service to the community. But S-L is also an educational philosophy linked with the transformative dimension of education that advocates all critical pedagogy. In this sense, we have seen the greatest contribution in this aspect.

The analysis of the assessments of the students reveals the high satisfaction and connection of the formative experience with the curricular competences and learning objectives of the Sociology subjects. We note the positive influence of S-L in strengthening and enriching the role of Sociology in the teacher training, a challenge pursued from our knowledge area and from the Faculty of Education.

As regards with other studies that aim to extend S-L at the university (Esparza et al., 2018), we emphasize the positive impact of our experience with the different groups involved. Based on our students, we can say that they have increased their motivation, contextualized their academic learning and are able to use them to serve the community. The Faculty's classes have become more dynamic and participatory thanks to their involvement in the project. Children's and primary schools have been able to meet some of their needs, benefiting children in school. Therefore, the Faculty of Education has increased its social impact, contributing to the exercise of the social responsibility of the university.

The need to promote synergies among all educational resources available in the community was highlighted in international education reports such as Coombs (1968), Faure (1973) or Delors (1996). In this regards, different educational proposals have been developed, such as the Educational Cities, the Learning Communities, the educational environment plans and the local educational networks, the Atlantida Project, etc. (Mayor-Paredes & Rodríguez-Mar, 2015). S-L is added to that list, but with the characteristic of allowing university students to be true protagonists.

Finally, we must add the perception of the professors of the Sociology Area that have led the implementation of S-L projects, who agree with the fact that the experience has improved the difficult coordination of teachers in shared subjects (like Education and Society), synchronizing styles and teaching strategies that promote the development of the competences proposed in

the career. In this sense, the advances shown represent a significant advance that will have to be investigated in a sustained way in the future, asking ourselves whether S-L can improve didactic strategies and the motivation and evaluation of the university student by stimulating the renewal and creativity that the teaching of Sociology needs (Feito, 2020). This challenge helps to set the foundation for a learning community with the participation of the teacher and the student .

Note

1   The fragments included throughout the text are identified by a code (M-1 to M-50) corresponding to the number assigned to each reflective memory. The authors of these memories are students coursing the 2nd grade of Early Childhood Education of the Campus of Ciudad Real, and they have a relatively homogeneous sociodemographic profile: Young women between 19 and 26 years old, who live in Ciudad Real or nearby.

References

Álvarez-Castillo, J.L., Martínez-Usarralde, M.J., González-González, H., & Buenestado-Fernández, M. (2017). El aprendizaje-servicio en la formación del profesorado de las universidades españolas. *Revista Española de Pedagogía*, *75*(267), 199-217. http://doi.org/10.22550/REP75-2-2017-02

Brozmanová, A., Heinzová, Z., & Chovancová, K. (2016). The Impact of Service-Learning on Students' Key Competences. *The International Journal of Research on Service-Learning and Community Engagement*, *4*(1), 367-276. https://bit.ly/3gDcFV1

Campo, L. (2015). Evaluar para mejorar los proyectos de aprendizaje servicio en la universidad. RIDAS, *Revista Iberoamericana de Aprendizaje y Servicio*, *1,* 91-111. http://doi.org/10.1344/RIDAS2015.1.6

Capella, C., Gil, J., & Martí, M. (2014). La metodología del Aprendizaje-Servicio en la Educación Física. *Apunts. Educación Física y Deportes, 116*(2), 33-43. https://doi.org/10.5672/apunts.2014-0983.es.

Coombs, P.H. (1968). *La crisis mundial de la educación*. Península.

Delors, J. (1996). *La educación encierra un tesoro.* Santillana.

Domingo, A. (2013). *Práctica reflexiva para docentes. De la reflexión ocasional a la reflexión metodológica*. Publicia.

Esparza, M., Morín, V., & Rubio, L. (2018). La incorporación del aprendizaje-servicio en la universidad: La experiencia de la Universidad de Barcelona. *RIDAS, Revista Iberoamericana de Aprendizaje Servicio*, *6*, 103-114. https://doi.org/10.1344/RIDAS2018.6.10

Faure, E. (1973). *Aprender a ser. La educación del futuro.* Alianza Editorial.

Feito, R. (2020). La difícil coordinación en la enseñanza de la Sociología. *Revista Española de Sociología*, *29*(2), 401-409. https://doi.org/10.22325/fes/res.2020.23

Ferrán-Zubillaga, A., & Guinot-Viciano, C. (2012). Aprendizaje-servicio: propuesta metodológica para trabajar competencias. *Portularia*, (12), 187-195. http://doi.org/10.5218/prts.2012.0020

Folgueiras, P. (2017). Evaluación y actividades de aprendizaje en los proyectos de aprendizaje-servicio. En L. Rubio y A. Escofet (Coords.), *Aprendizaje-Servicio (ApS): Claves para su desarrollo en la Universidad* (pp. 97-110). Octaedro.

Folgueiras, P., Luna, E., & Puig, G. (2013). Service learning: Study of the degree of satisfaction of university students. *Revista de Educación*, (362), 159-185. http://doi.org/10.4438/1988-592X-RE-2011-362-157

Furco, A. (2004). Impacto de los proyectos de aprendizaje-servicio. En *Aprendizaje y servicio solidario en la Educación Superior y en los sistemas educativos latinoamericanos.* Actas del 7mo. Seminario Internacional "Aprendizaje y Servicio Solidario". Buenos Aires, 6 y 7 de octubre de 2004.

García-García M., & Sánchez-Calleja, L. (2017). El aprendizaje servicio y el desarrollo de las competencias emocionales en la formación inicial del profesorado. *Contextos Educativos. Revista de Educación*, *20,* 127-145. https://doi.org/10.18172/con.2991

Guerrero-Serón, A. (2007). La doble contribución de la sociología a la formación del profesorado,

Revista Internacional de Sociología, *65*(48), 203-220.
https://doi.org/10.3989/ris.2007.i48.74

Gutiérrez, M., & Moreno, P. (2018). El aprendizaje servicio como metodología para la formación integral de los estudiantes universitarios. *Edetania. Estudios y propuestas socioeducativas*, (53), 185-202. https://bit.ly/3b5NedG

Ibarrola-García, S., & Artuch, R. (2016). La docencia en la universidad y el compromiso social y educativo. *Contextos educativos: Revista de educación 19,* 105-120.
https://doi.org/10.18172/con.2763

Kaplan, C.V. (2012). Mirada social, exclusión simbólica y autoestigmación: Experiencias subjetivas de jóvenes de educación secundaria. En C.V. Kaplan, L. Krotsch y V. Orce, *Con ojos de joven: Relaciones entre desigualdad, violencia y condición estudiantil* (pp.15-78). Facultad de Filosofía y Letras de la Universidad de Buenos Aires.

López-Gamboa, G.E. (2019). *Representaciones sociales de estudiantes de Magisterio acerca del éxito y el fracaso escolar: Una investigación en las escuelas normales del Estado de Yucatán*. (Tesis doctoral). Universidad de Castilla-La Mancha. https://bit.ly/3hEX9ck

Loubet-Orozco L. (2018): Contribución de la sociología en la formación docente. Un ejercicio de intervención en México. *Revista de Sociología de la Educación* (RASE), *11*(1), 5-20.
https://doi.org/10.7203/RASE.11.1.10598

Lupión-Cobos, T., & Gallego-García, M.M. (2017). Compartiendo la mirada: una experiencia en práctica flexiva para formación permanente. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, *20*(1), 127-144. http://doi.org/10.6018/reifop/20.1.244931

Mayor-Paredes, D., & Rodríguez-Mar, D. (2015). Aprendizaje-Servicio: Construyendo espacios de intersección entre la escuela-comunidad-universidad. *Profesorado. Revista de currículum y formación del profesorado*, *19*(1), 262-279. https://bit.ly/2EBGGY9

Mayor-Paredes, D., & Rodríguez-Mar, D. (2016). Aprendizaje-servicio y práctica docente: una relación para el cambio educativo. *Revista de Investigación Educativa*, *34*(2), 535-552. https://doi.org/10.6018/rie.34.2.231401

Milla-Martínez, L. (2020). *El Aprendizaje-Servicio en la formación de futuros docentes: Una experiencia en el grado de Educación Primaria de la Facultad de Educación de Albacete*. (Trabajo Fin de Master Universitario de Investigación e Innovación Educativa). Universidad de Castilla-La Mancha. https://bit.ly/32wcaqJ

Mills, C.W. [1959] (1986). *La imaginación sociológica*. Fondo de Cultura Económica.

Obiol i Francés, S., Beltrán-Llavador, J., Box-Varela, Z., Gabaldón-Estevan, D., Hernàndez-Dobon F., Martínez-Morales, I., & Martínez-Morales, J.R. (2019). *Enseñar Sociología a quienes no estudian Sociología,* 1085-1095. V Congreso de Innovación Educativa y Docencia en Red. Universidad Pública de Valencia.
http://dx.doi.org/10.4995/INRED2019.2019.10476

Pérez-Gómez, A.I. (1993). La formación del docente como intelectual comprometido. La tarea de provocar la reconstrucción del conocimiento, *Signos. Teoría y práctica de la educación*, *8/9,* 42-53. https://bit.ly/34HDtBc

Pérez-Gómez, A.I (2010). Aprender a educar. Nuevos desafíos para la formación de docentes. *Revista Interuniversitaria de Formación del Profesorado*, *68*(24,2), 37-60.
https://bit.ly/3lkcvFs

Perrenoud, Ph. (2002). La place de la sociologie dans la formation des enseignants: réflexions didactiques. *Education et Sociétés*, *1/9,* 87- 99. https://doi.org/10.3917/es.009.0087

Rubio, L., & Escofet, A. (Coords.) (2017). *Aprendizaje-Servicio (ApS): Claves para su desarrollo en la Universidad*. Octaedro.

San Román, S., Vecina, C., Usategui, E., del Valle, A.I., & Venegas, M. (2015). Representaciones sociales y orientación educativa del profesorado. *Education Policy Analysis Archives/ Archivos Analíticos de Políticas Educativas*, *23*, 1-18. https://doi.org/10.14507/epaa.v23.2088

Tapia, M.N. (2008). Calidad académica y responsabilidad social: el aprendizaje servicio como puente entre dos culturas universitarias. En M. Martínez (Ed.), *Aprendizaje servicio y responsabilidad social de las universidades*. Octaedro-ICE.

Tapia, M.N. (2014). La aportación del aprendizaje-servicio en el mundo. *Cuadernos de Pedagogía*, *450*, 54-56. https://bit.ly/2G57f8G

Tarabini, A. (2015). La meritocracia en la mente del profesorado: un análisis de los discursos docentes en relación al éxito, fracaso y abandono escolar. *Revista de la Asociación de Sociología de la Educación*, *8*(3), 349-360. https://bit.ly/2Qz3BWp

Uribe, A. (2018). Percepción de los estudiantes de educación inicial frente al desarrollo de experiencias formativas en modalidad A+S. *Revista Electrónica de Investigación Educativa*, *20*(4), 110-122. http://doi.org/10.24320/redie.2018.20.4.1826

Venegas, M. (2012). Sociología y formación del profesorado: aportaciones y balance en el nuevo paradigma universitario. *Educatio Siglo XXI*, *30*(2), 403-422. https://bit.ly/2DbKdfi

Service-learning methodology in an integrated cost and marketing project

Metodología de aprendizaje-servicio en un proyecto integrado de costos y marketing

Dr. Francisco Ganga-Contreras is a professor and researcher at Universidad de Tarapacá (Chile) (franciscoganga@academicos.uta.cl) (https://orcid.org/0000-0001-9325-6459)

Estela Rodríguez-Quezada is a professor and researcher at Universidad de Bío-Bío (Chile) (erodrig@ubiobio.cl) (https://orcid.org/0000-0002-3259-0936)

Nataly Guiñez-Cabrera is a professor and researcher at Universidad de Bío-Bío (Chile) (nguinez@ubiobio.cl) (https://orcid.org/0000-0002-6109-8457)

Abstract

The training of competent professionals, with a vision and stamp of commitment to society, must go beyond traditional teaching processes, with innovation being a key factor. Service-learning (S-L) is a methodology that integrates teaching with the community service of students in a real environment. There are several challenges in implementing this active methodology, taking into account the stakeholders and the needs of the community. In this sense, this study seeks to describe the experience regarding the design, implementation and management of the service-learning methodology in an integrated project that includes two subjects, costs and marketing, in a business program at a state university of the south-central Chile. The work is based on the systematization of experience, based on three phases of implementation within the community: (1) planning, design and analysis, (2) delivery of the service and, (3) evaluation, reflection and monitoring of service-learning. The stages of design, implementation and management of a project of these characteristics could serve as a guide and guidance in future experiences by teachers or institutions that are interested in the innovation of teaching-learning processes.

Keywords: Service-learning, costs, educational management, university governance, implementation, marketing.

Resumen

La formación de profesionales competentes, con visión y sello de compromiso con la sociedad, debe ir más allá de los procesos tradicionales de enseñanza, resultando entonces la innovación un factor clave. El aprendizaje-servicio (ApS) es una metodología que integra la enseñanza con el servicio comunitario de los estudiantes en un entorno real. Existen varios desafíos en la implementación de esta metodología activa, teniendo en cuenta las partes interesadas y las necesidades de la comunidad. En este sentido, este estudio busca describir la experiencia en cuanto al diseño, la implementación y la gestión de la metodología de aprendizaje-servicio en un proyecto integrado que contempla dos asignaturas, costos y marketing, en un programa de negocios en una universidad estatal del centro-sur de Chile. El trabajo se sustenta en la sistematización de experiencia, basada en tres fases de implementación dentro de la comunidad: (1) planificación, diseño y análisis, (2) entrega del servicio y, (3) evaluación, reflexión y monitoreo del aprendizaje-servicio. Las etapas de diseño, implementación y gestión de un proyecto de estas características podrían servir de guía y orientaciones en futuras experiencias por parte de los profesores o las instituciones que se encuentren interesados en la innovación de los procesos de la enseñanza-aprendizaje.

Descriptores: Aprendizaje-servicio, costos, gestión educativa, gobernanza universitaria, implementación, marketing.

1. Introduction

Organizations face a scenario characterized by profound social, political and economic changes, a phenomenon that has increased during the pandemic that the planet is facing, and which generates insecurities as uncertainty has increased and has forced the introduction of new models (Ganga-Contreras, 2013; Niño-González & Linares-Herrera, 2020).

It is evident that the generation, reproduction and transfer of knowledge moves at a significant speed in this complex and competitive world, driven by the profuse development of technologies (Ganga-Contreras et al., 2014; Ganga-Contreras et al., 2019a).

The reality described indicates the need of being increasingly innovative in the formation of professional profiles that the community needs, where university is inserted with innovative and multifaceted methodologies (Vidal-Raméntol & Fuertes-Camacho, 2013; Sánchez-Marín et al., 2019) and applicable to multiple types of students (Puebla-Martínez et al., 2018) for increasingly broad educational purposes (Domínguez, 2018; Rubio, 2018).

The business area does not escape this reality, and therefore professionals are also required to have a comprehensive training, with sensitivity and empathy in the environment they develop. In this context, new practices of citizenship are created, training citizens to be participatory, responsible, and committed to the common good (Pérez-Galván & Ochoa-Cervantes, 2017).

One teaching-learning methodology that achieves this purpose is service-learning (SL), which tries to connect the student to society in a real way (Guiñez-Cabrera et al., 2020). Thus, SL has positioned as a vocational education strategy, combining academic training and community service (Ganga-Contreras et al., 2019b). Therefore, training critical citizens means legitimizing an educational project that is committed to social transformation (Traver-Martí et al., 2019; Esteves-Fajardo et al., 2020).

As Barrientos-Báez (2016) points out, there are tools that make learning processes much more personalized and flexible, such as mobile learning (Alises-Camacho, 2017) and the concept of educommunication (Rodríguez-García, 2017). In this case, the SL methodology is an example of the advancement in learning styles and tools.

There are several definitions of SL, depending on the objective of the study to be achieved; it can be understood as a course-based educational experience, where students participate in organized service activities that meet the identified needs of the community (Orozco-Gómez et al., 2016).

The integration of community service with learning enriches course content, and it is evident that the benefits of SL can have a triple positive impact: Student, community and institution (Al Barwani et al., 2013).

SL experiences can offer business students an opportunity to find a sense of personal responsibility, interact with the real community, develop greater interpersonal, Intercultural and ethical skills (Simó-Algado et al., 2013; Carmona-Martínez et al., 2014) also experiencing the challenges that real projects regularly demand, such as time management, solution to the needs of community partners, and collaboration with peers (Seider et al., 2011; Stefaniak, 2015). In this way, Rodríguez-Izquierdo (2020) shows that the methodology of SL teaching influences and improves the academic commitment of university students, showing more positive attitudes in the study.

On the other hand, institutions benefit from SL —specifically business schools— because they can obtain contacts and contribute to the community by improving the image of social commitment, the link with the community and achievements through community services, and the mission of educating students as socially responsible people (Poon et al., 2011).

In turn, the community can benefit from this pedagogy, as companies have access to technical supports in specific business areas.

For this particular study, SL means a teaching-learning methodology based on one or more subjects in an academic program, which generates multiple benefits for all people involved. Although there is a growing interest in this methodology due to its important contributions, there is still no comprehensive implementation framework that can be used in any context as in an integrated two-subject project.

Considering the lack of implementation of this particular type of project, this study aims to describe the experience of designing, implementing and managing the methodology of SL in an integrated two-subject project (costs and marketing) in students coursing a business program at a public and state university in central-southern Chile.

This is done using the SL model proposed by Musa et al. (2017), which includes three phases: planning, design and analysis of SL; delivery of the SL service; and evaluation, reflection and monitoring of SL.

The results of this work could serve as a guide for other institutions and teachers who would like to implement SL and improve their teaching-learning processes through methodological innovation.

2. Learning-service methodology

Pizarro et al. (2015) show their implementation phases of the SL methodology, based on Tapia´s postulates (2007), where the implementation of SL was in the cost foundation course conducted from three major phases: (1) search and classification of community partners, (2) implementation of the methodology, and (3) monitoring and evaluation. Petkus (2000) also developed a theoretical and practical framework for SL in marketing to guide the planning, implementation and evaluation of a SL course in marketing through Kolb experimental learning cycle model (1984).

This project integrated with SL includes two subjects and is based on the SL methodology model proposed by Musa et al. (2017), which is based on three implementation phases: (1) SL planning, design and analysis (it involves identifying and analyzing needs and opportunities to incorporate them into SL processes and activities), (2) SL service delivery (focusing more on the implementation of the integrated SL project that has two steps, establish community participation and institutionalize the SL in the faculty, students and community), (3) SL assessment, reflection and monitoring (see Figure 1).

Figure 1. A methodology for implementing SL in an integrated project.
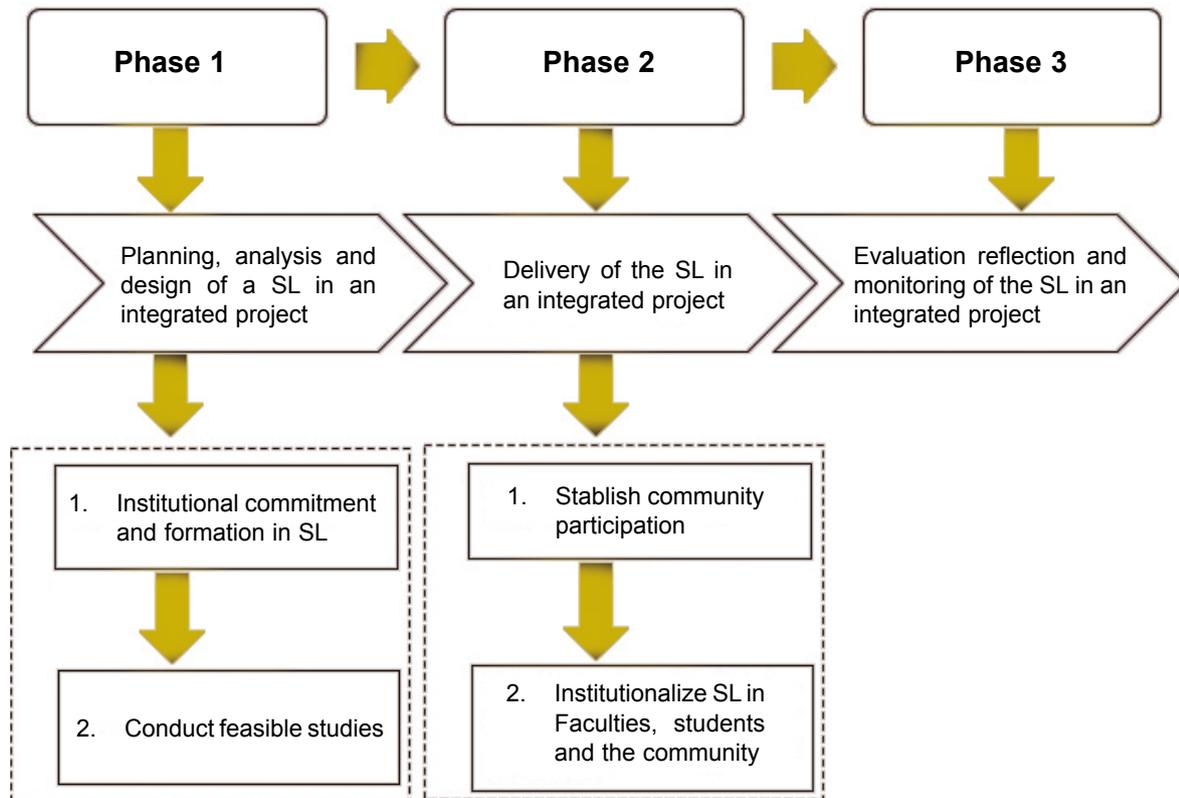
Source: Own elaboration, based on Musa et al. 2017.

3. Proposal

3.1. Phase 1: Planning, analysis and design of a SL in an integrated project

This phase involves identifying and analyzing opportunities and needs to incorporate them into SL processes and activities. Two steps are distinguished:

3.1.1. Step 1: Institutional commitment and training of a SL program

Institutional support is essential to achieving good results in the implementation of the SL methodology (Guiñez-Cabrera et al., 2020). In turn, it is important for members of institutions to understand that SL is an effective process

for achieving academic goals that are valued by students and the community (Poon et al., 2011).

In the case of the University of Bío Bío (UBB), it has an institutional educational model since 2008 which focuses the action on the students, concerning about their personal and professional training, and seeking to achieve an integral development as individuals, professionals and citizens that allows to respond to the needs of the environment. In this model, the teaching-learning process is fundamentally active, where training is oriented toward achieving meaningful learning. A significant thematic focus is the commitment, which corresponds to professional, personal and social responsibility on the economic and social reality, favoring the development of social responsibility through the training of professionals who are committed to their community, with an integrative look at

real problems, ensuring solidarity development. Training and recycling are essential parts of an organization for an optimal professional development (Barrientos-Báez et al., 2019; Ongallo-Chanción & Gallego-Gil, 2020). Within the key learning components, the experiential context, procedural, theoretical concepts and the implementation of knowledge are considered (Modelo Educativo UBB, 2017).

On the other hand, Bringle and Hatcher (1996) suggest that during the first stage of planning, the interested faculty needs to be identified to develop SL and even form a program. The role of the faculty's SL program is to make recommendations of the SL requirements with respect to courses, students and the community, being a link between the faculty and the community (Musa et al., 2017).

The Faculty of Business Sciences (FACE) of the UBB has an Improvement Plan called: "Development of competences of students of the Faculty of Business Sciences, through the methodology Service Learning and the use of Information Technologies" (Programa Aprendizaje Servicio, 2017).

As known, institutions that are interested in SL should encourage teacher development activities to develop a common understanding of SL and increase confidence in the implementation of this pedagogy (Bringle & Hatcher, 1996). Without the support of the teacher participation, incorporating SL into the curricula will not be enough (Seifer & Connors, 2007).

The UBB has an area of pedagogical and technological development, and in turn a permanent program of university pedagogy by the curriculum management and monitoring unit, which provides training to teachers in various disciplines, among them is the active methodology of SL. The purpose of the FACE improvement plan is also to strengthen teacher learning and management based on real experiences (Programa Aprendizaje Servicio, 2017 Programa Aprendizaje Servicio, 2017).

3.1.2. Step 2: Carry out feasible studies

A feasible study is essential before implementing SL in the community (Musa et al., 2017). There are five types of feasible studies to be carried out in the implementation of SL; (1) Course Development, (2) SL Projects, (3) Operational, (4) Financial, and (5) Technical (Musa et al., 2017). The studies are described below.

3.1.2.1. Course Development

The development of SL in higher education (ES) is primarily a work of professors (Bringle & Hatcher, 1996). Professors need to study how to integrate SL into the curriculum, which is based on requirements and the career direction. Course preparation is a crucial process in the implementation of SL, reviewing the remodeling of course content and learning objectives where SL objectives must take into account the requirements of students and the community (Musa et al., 2017).

The project needs to reflect the contents of the curriculum, community needs and reflection on SL activities (Gallgher et al., 1999). An explicit and mutual agreement on the objectives of SL between the faculty and the community must also be reached. The faculty also needs to study course requirements, instructions, activities, learning resources, and evaluations, in this case costs and marketing (Musa et al., 2017).

First, the people involved in the integrated project incorporated the competences of the generic university profile such as: Willingness to learn and entrepreneurial capacity (Mayer-Granados et al., 2019), leadership, collaborative work, communication capacity and social responsibility; competences that are promoted through the implementation of the SL methodology. According to Barrientos-Báez et al. (2019), the new teaching model provides a different way of understanding university and its relations with society. Autonomy is the main characteris-

tic that universities have to respond flexibly and rapidly to the changing needs.

The competences of the graduation profile were then reviewed to ensure that the implementation of this active methodology was consistent with the student's training.

Next, the respective courses (costs and marketing) were redesigned, reviewing the subject programs to ensure that the course outline met the content addressed by SL and the needs of community partners. In addition, the methodology of both subjects, the academic, conceptual and procedural contents, and the evaluation criteria were analyzed, making them consistent with the needs of community partners. The courses were appropriate and relevant to the community, because SL objectives emphasize how students in this business program can propose cost and marketing solutions to generate more opportunities for businesses in the area, based on the actual needs of the company code where they are inserted.

The respective academic load (working hours) of the students was also considered; this decision allowed the alignment between the specifications of the subjects in each program (costs and marketing), with respect to the weekly load, which corresponds to five hours of attendance and five hours of autonomous work weekly. With regard to the amount of time in the field work, this variable depended on the requirements of the community partners, but it was necessary to have at least one face-to-face meeting per week, which depended on the availability of the community partner and the level of progress of the team work, being considered as part of autonomous work.

The integrated project was rated with a grade on the scale from 1 to 7 and had a weight of 30% of the final grade in both cost and marketing subjects. Once the effectiveness of the implementation of the methodology was assured, the next stage took place.

3.1.2.2. SL Projects

There are two types of SL projects: Direct and indirect services (Gallgher et al., 1999). This integrated project was a direct service that provided support to community partners in a face-to-face way, meeting a particular need. To achieve this, students needed to understand the needs of businesses in the area.

This implementation of SL aimed to show students the relevance of the role of business professionals; it was intended that they would become real consultants for companies and provide all their cost and marketing knowledge to improve the consulting business.

The subjects were designed in such a way that students would have the opportunity to achieve results such as: Effective communication, job organization, teamwork, identification and problem-solution, among others (Kearney, 2004).

The implementation of SL in a marketing course is probably the most challenging, because it is very likely the first exposure of students to the concepts and skills required in marketing; however, it is also an excellent opportunity for these beginning students to experience the application in the real world, becoming real consultants, evaluating existing business efforts and implementing strategic plans, where the various functions of marketing are integrated (Petkus, 2000).

In terms of cost, students could perform analysis of financial documentation by identifying, classifying, and calculating costs for the different products offered by the companies, putting into practice theoretical concepts related to the matter and to experience real experience, in addition to complementing this with the use of information and communication technologies by building technological tools such as those suggested by Pontes et al. (2020)

3.1.2.3. Operational

An operational feasibility study can be carried out from three different points of view: Faculty/university, student and community

(Musa et al., 2017). The operational feasibility study should consider institutional commitment (Bringle & Hatcher, 1996) and resources. In this sense, the FACE Improvement Plan provided support to teachers in the curricular changes of both subjects and guidance for the implementation of the SL methodology. When the planning was carried out, the team determined the number of students by groups, in order to achieve a correct operationality of the SL methodology; in turn, the operational feasibility study identified, from a community perspective, the most appropriate community partners for the implementation of this integrated project.

3.1.2.4. Financial

Financial support requires the commitment of the institution (Seifer & Connors, 2007). A financial requirement is usually determined by the size of the classes and the nature of the project (Musa et al., 2017).

Managing fourteen projects within the community was a challenge and it requires a huge amount of time, work and resources to achieve the ultimate goal of SL. The SL budget proposal was prepared in terms of the design, planning and costs involved, which was sent to the responsible unit.

After presenting the SL budget proposal, financial support was received from the university, the Faculty of Business Sciences and the Department of Business Management. The amount received by the sponsors was used for field work, printing materials, launching the integrated project, administrative and related work, all of which made it possible to operationalize the methodology properly.

As suggested by Musa et al. (2017), the budget plan was carried out ensuring that the integrated SL project could be implemented effectively and efficiently in the community.

The financial feasibility study considered the costs involved in logistics, where the educational entity's units were used, specifically the UBB extension center, which is physically located in a central and strategic location in the city of central-southern Chile. The launch of the project and the presentations were carried out in these units, for the ease and comfort of both the entrepreneurs (community partners) and the students.

Within the administrative work, both professors of each subject had an assistant to ease the administrative work.

3.1.2.5. Technical

The technical feasibility study relates to the number of students that can be admitted for a successful development of the SL project (Musa et al., 2017), in this case the integrated project included a total of 64 students, resulting in 14 teams that worked with the same number of companies in the area.

Within the technical feasibility of the integrated project, it was also necessary to identify the technology and communication requirements demanded by students, community partners and teachers. The UBB loans laptops to students and professors. Internet service, projectors, electricity and software used for data analysis were available at the education institution.

3.2. Phase 2: Delivering SL in an Integrated Project

After all the components in Phase 1 were considered, Phase 2 focuses on the implementation of the integrated SL project in the subjects by using two steps:

3.2.1. Step 1: Establishing Community Participation

Building a partnership between the higher education institution and the community is a crucial process for a successful community participation (Musa et al., 2017).

Community participation is described as the collaboration between the university and its com-

munities to achieve the exchange of resources and knowledge that is mutually beneficial in a context of partnership and reciprocity (Driscoll, 2009).

A well-planned community partnership is needed to ensure that they are not only willing to participate, but also that the community and the educational institution can collaborate effectively. During this moment, both the community and the university must understand and mutually agree on the benefits of SL for each party (Musa et al., 2017).

Since preliminary and effective involvement with community partners is a crucial process, the SL team designed and implemented the next steps of involvement between the community and the higher education institution. At the first meeting of the Integrated Cost and Marketing Project with SL, some questions were highlighted, such as: What is SL? How does the SL program benefit both parties? What cost and marketing projects could be developed for the community? And what are the project preferences that are related to the needs?

At this stage, an approach was used to identify the needs of community partners. Since SL is a win-win situation, the requirements for the course content, the student's knowledge and skills were combined with the list of community-proposed SL projects. Both reached explicit agreement and expectations in terms of execution by the students to the community.

3.2.2. Step 2: Institutionalizing SL in the faculty, students, and the community

After identifying the course requirements for working with SL, the academic unit must consider SL as part of the student´s culture (Musa et al., 2017). In this line of work, the FACE was awarded in 2014 a performance agreement aimed at the implementation and development of the Improvement Plan, Funded by the World Bank through the Ministry of Education of the Republic of Chile (Service Learning Program, 2017). Within its purposes is the improvement

of the competences of professionals for the formation of the academic programs of the Faculty with the SL methodology.

Another objective was to improve the administration and use of ICT equipment and infrastructure to support the management and learning of professors through real experiences and with the contents of the subjects, implementing the SL methodology and evaluation tools (Programa Aprendizaje Servicio, 2017). It is important to note that ICTs have an increasing influence on young people by offering the possibility of communicating interactively, experimenting, solving problems, managing all kinds of data and simulating real situations (Barrientos-Báez, 2016).

The materialization of these methodologies in the subjects was through the incorporation of an integrated project, which consisted in that the students had to advise companies belonging to the Region of Ñuble (Chile) in a concrete need, according to the graduation profile of the business student, turning learners into true business consultants.

The evaluation of the activity was systematic and with all the actors involved. It was expected that the incorporation of this new methodology will produce the following results: improvement of academic performance in students, significant contributions to the development of social skills as collaborative work (Garcia-Roca, 2019), effective oral and written communication, the permanent search for learning, and network collaboration between the university and the businesses of the sector.

To achieve this goal, team works were formed from five to six participants with a total population of 64 students, resulting in a total of 14 team works (two sections and both subjects).

The teams were formed on the first day of class using the VARK Learning Styles questionnaire and Team Based Learning methodology. Therefore, the selection was not out of affinity and the teams created were mixed with different learning styles.

The working groups had to define a name for their team, and remained permanently formed throughout the semester and for all the activities that were developed in both subjects.

The SL integrated cost and marketing project consulting was developed over a semester, and students had to contact a company to work on the project, and a monthly working meeting with students, entrepreneurs and professors was planned at the university campus.

At the first working meeting, the objectives of the project were explained to the entrepreneurs, defining the commitments of the parties, the students and the entrepreneurs, for the successful development of the integrated project; subsequently, each team worked together to define the problem to be solved by the students inside the company, and they also developed the planning of the activities (Gantt Chart) and the consent of the agreement.

For their part, the entrepreneurs committed themselves to providing all the information that the students required for the development of the integrated project, such as: Attending monthly meetings scheduled at the university and evaluating the performance of the working groups; in turn, students and professors committed themselves to providing an advisory report that would solve the problem raised by the employer in their company.

At each working meeting, the students presented an advance of the aspects to be considered by each report in accordance with the initial planning, which was presented in a written report and then orally to the commission. Feedback was immediate at each working meeting, and both the written report and the presentation were subsequently graded.

3.3. Fase 3: Evaluación, reflexión y monitoreo del ApS en un proyecto integrado

Bringle and Hatcher (1996), indicate that teachers and students can be evaluated using the course result, such as the satisfaction and outcome of the student's learning, while community partners can assess the impact of SL activities on their needs met by students in the integrated project. Higher-order thinking at every stage is important to enrich the learning experience and enhance civic responsibility and strengthen the community (Seifer & Connors, 2007).

After visits to community partners and the work generated, the students returned to the University to complete their tasks and reflect in terms of learning units, individual development, soft communication skills, and technical skills. In addition, they reviewed their guide log of each visit, completed a reflection form and a log book. In the reflection, information was obtained on the experience of the courses, the knowledge and the understanding degree of the courses, the skills acquired and the impact on the community of the SL project.

A total of four presentations were made with written reports delivered with progress. The aspects evaluated can be seen in Figure 2.

Figure 2. Evaluated Aspects in the application of SL

Phase 3	Phase 3
1 Introduction	The members of the team work introduced themselves, and they presented a clear explanation of the objectives, structure of the content and the working methodology.
2 Development of the content	The content was presented adequately and coherently with the required complexity
3 Mastery of the subject matter	Main topics are explained fluently and clearly
4 Conclusions	An adequate conclusion is presented, summarizing the work presented and the person responds doubts and questions.
5 Style	Writing and attractivity of the material presented. The dress code is adequate to a business professional.
6 Communication	Use of appropriate vocabulary for the public present; new words are defined for the audience. The body language and the visual contact with the audience are appropriate; there is security during the presentation and the planned time is respected.
7 Personal presentation	All members introduced themselves, there is a clear presentation of the objectives, structure of the content and working methodology
8 Logistics	Audiovisual support such as PowerPoint is used, demonstrating creativity and dynamism in the presentation.

Source: Own elaboration based on the implementation of SL

Qualitative-quantitative research techniques were used to assess the impact of this SL methodology. The instrument used was a self-efficacy survey applied to students at the end of the integrated project.

To reflect, in terms of community impact and university-community relations (Musa et al., 2017), employers were given a closure satisfaction survey consisting of eleven questions of which six were closed and five open questions, seeking their opinion on the experience of the project, qualifying the experience of working on this project and evaluating the skills observed in the students.

4. Conclusions

It is clear that SL methodology in a business program, through an integrated project, has multiple benefits for all participants involved. Students, being able to apply in a practical way the theoretical content presented in the classroom, enrich their learning by acquiring experiences from the real world. Community partners can address unmet needs and institutions can generate concrete actions that are linked to the environment.

However, in addition to knowing the benefits of this innovative methodology, it should be

noted that when implementing this process there are many details that must be taken into account and must be considered for a good execution of this SL methodology.

This study described a complete and detailed process on the design, implementation and management of a SL methodology that included two subjects (costs and marketing) of the Business Engineering career of UBB FACE.

In this paper, each of the phases applied during the process were presented in detail with their respective sub-phases, all of which are fundamental to achieving a good design, implementation and management of the SL methodology in an integrated project. None of the steps is more important than others, therefore it is considered that they are all vital in order to achieve the desired objective of having a meaningful contribution to teaching-learning through this innovative pedagogy.

When comparing with other studies, it is found that Pizarro et al. (2015) indicate that the implementation of SL is based on three phases (search and classification of community partners, implementation of the methodology, and monitoring-evaluation). Likewise, Petkus (2000) developed a theoretical and practical framework to guide a marketing course with SL. When analyzing them in detail, several differences with the models listed above can be found:

This methodology is applied in a single subject (there are two in this study).

The work of Pizarro et al. (2015) indicates three phases, where the first one corresponds to the search for community partners; then the implementation phase of the methodology, where the community partner is linked with the students; later the consultancy is presented; and finally, the monitoring and evaluation are presented. The difference with the proposal presented lies in the phases and specification of each one, and this article includes an earlier stage corresponding to institutional commitment and feasibility studies.

Petkus's work aims to provide a framework for the design and implementation of SL marketing courses, but primarily based on the course program itself, without incorporating other operational variables that are essential in the process for a good implementation.

In view of the background, it can be noted that the great contribution of this study is to detail each phase, which begins with a feasibility phase, since most of the models proposed to incorporate this SL methodology begin from the stage of seeking community partners or verifying whether the methodology is in line with the program of the subject. This study emphasizes that these phases are important, but it is also necessary to carry out previous feasibility studies to know whether it will be possible to achieve the objectives of one or more subjects that incorporate this innovative methodology.

The findings of this study are expected to be useful in advancing the understanding of how to design, implement and manage projects integrated with SL, thereby giving value to all participants and to the attainment of teaching-learning objectives.

While this study provides great value in describing the experience of an innovative methodology in an integrated project, it also has a number of limitations. One of them points to the design, implementation and management of the SL methodology in two specific subjects of the business area and in a single context that is the Chilean.

On the other hand, the implementation of this methodology was carried out in a higher education institution that has the support of this type of methodology, and that has a SL institutional program. Therefore, the phases to carry out this type of methodology in another type of institution could be different or very difficult to operationalize.

Future research could be carried out in subjects in other areas, in other contexts in Latin America and in other types of institutions, to

verify whether the phases identified in this study are met or have significant differences.

Note

1. *Visual, Aural, Read/Write, Kinesthetic by its acronyms.*

References

Al-Barwani, T., Al-Mekhlafi, A., & Nagaratnam, R.P. (2013). Service-Learning Might be the Key: Learning from the challenges and implementation strategies in EFL Teacher Education in Oman. *International Journal of Instruction, 6*(2), 109-128. http://bit.ly/barwanietal

Alises-Camacho, M.E. (2017). Potencial pedagógico del Mobile Learning en el aula de música en secundaria. *Revista de Comunicación de la SEECI, 43*, 29-51.
http://dx.doi.org/10.15198/seeci.2017.43.29-51

Barrientos-Báez, A. (2016). GDS Amadeus. Propuesta de innovación didáctica. En *TIC actualizadas para una nueva docencia universitaria.* McGraw Hill.

Barrientos-Báez, A., Barquero-Cabrero, M., & Rodríguez-Terceño, J. (2019). La educación emocional como contenido transversal para una nueva política educativa: el caso del grado de turismo. *Revista Utopía y Praxis Latinoamericana, 24*(4), 147-165. https://bit.ly/3gMTolG

Bringle, R.G., & Hatcher, J.A. (1996). Implementing service learning in higher education. *Journal of Higher Education, 67*(2), 221-239. https://doi.org/10.1080/00221546.1996.11780257

Carmona-Martínez, M., Conesa-Pérez, M. del C., & Ros-Clemente, M.I. (2014). Valoración del Aprendizaje basado en Problemas por los alumnos: diferencias por sexo. *Historia y Comunicación Social, 19,* 725-734.
https://doi.org/10.5209/rev_HICS.2014.v19.44997

Domínguez, A. (2018). Fomento de la lectura y la escritura en lenguas indígenas de México: algunas consideraciones. *Investigaciones Sobre Lectura, 10*, 55-94. https://bit.ly/387X6ST

Driscoll, A. (2009). Carnegie's new community engagement classification: Affirming higher education's role in community. *New Directions for Higher Education*, 5-12. https://doi.org/10.1002/he.353

Esteves-Fajardo, Z., Chenet-Zuta, M.E., Pibaque-Ponce, M.S., & Chávez-Rocha, M.L. (2020). Estilos de aprendizaje para la superdotación en el talento humano de estudiantes universitarios. *Revista de Ciencias Sociales, XXVI*(2), 225-235. https://bit.ly/34ffqbN

Ganga-Contreras, F. (2013). Gerencia latinoamericana en las actuales plataformas organizacionales: Una mirada preliminar y sinóptica. *Revista Venezolana de Gerencia, 18*(64), 711-722. https://bit.ly/Ganga-Contreras

Ganga-Contreras, F., Piñones, M. & Valderrama, C. (2014). Innovaciones teóricas en administración: una sinóptica mirada diacrónica. *Prisma Social, 12*, 688–707.
https://bit.ly/Ganga-Contrerasetal

Ganga-Contreras, F., Rodríguez-Ponce, E., Pedraja-Rejas, L., & Alarcón, N. (2019a). Percepciones de los funcionarios públicos sobre la relación entre Universidades Públicas y Privadas con el Estado De Chile. *Interciencia, 44*(9), 521-528. https://bit.ly/Ganga-Contrerasetal2

Ganga-Contreras, F., Guiñez-Cabrera, N., Olguín-Gutiérrez, C., & Ceballos-Garrido, P. (2019b). Percepción estudiantil de la metodología "aprendizaje-servicio" en la asignatura de marketing. *Opción, 35*(90), 475-505.
http://bit.ly/gangacontrerasetal

García-Roca, A. (2019). Los fanfictions como escritura en colaboración: modelos de lectores beta. *El profesional de la información, 28*(4). https://doi.org/10.3145/epi.2019.jul.04

Guiñez-Cabrera, N., Ganga-Contreras, F., Olguín-Gutiérrez, C., & Ceballos-Garrido, P. (2020). Metodología de Aprendizaje Servicio: Experiencia de implementación desde la perspectiva de marketing. *Revista Academia y Negocios, 6*(1), 1-10.
http://bit.ly/guinezcabreraetal

Kearney, K.R. (2004). 'Students' Self-Assessment of Learning through Service-Learning'. *American Journal of Pharmaceutical Education, 68*(1), 1-13. http://bit.ly/kearneykr

Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development.* Prentice Hall. http://bit.ly/kolb1984

Mayer-Granados, E.L., Charles-Coll, J.A., & De la Garza-Ramos, M.A. (2019). El fomento emprendedor desde la universidad mexicana. *Revista Venezolana de Gerencia, 24*(85), 49-67. https://bit.ly/380eb0U

Modelo Educativo de la Universidad del Bío Bío. https://bit.ly/ModeloEducativoUBB

Musa, N., Ibrahim, D.H.A., Abdullah, J., Saee, S., Ramli, F., Mat, A.R., & Khiri, M.J.A. (2017). A methodology for implementation of service learning in higher education institution: A case study from faculty of computer science and information technology, UNIMAS. *Journal of Telecommunication, Electronic and Computer Engineering, 9*(2-10), 101-109. http://bit.ly/musaetal

Niño-González, J.I., & Linares-Herrera, M.P. (2020). Investigar: Acción impostergable. *Bibliotecas. Anales de Investigación, 16*(1), 5-6. https://bit.ly/384PUqJ

Orozco-Gómez, M., Sánchez-Fuentes, S., Cuesta-Gómez, J.L., Cifuentes-García, A., & Martín-Almaraz, R.A. (2016). Participación en comunidades de aprendizaje, como elemento clave para la formación inicial en el ámbito de la educación inclusiva e intercultural. *Revista de Ciencias de la Comunicación e Información, 21*(1), 35-44. http://doi.org/10.35742/rcci.2016.21(1).35-44

Ongallo-Chanción, C., & Gallego-Gil, D. (2020). El 'emofeedback': la inteligencia emocional y el feedback en los procesos de acompañamiento. *Revista de Ciencias de la Comunicación e Información, 25*(2), 1-22. https://doi.org/10.35742/rcci.2020.25(2).1-22

Pérez-Galván, L.M., & Ochoa-Cervantes, A. de la C. (2017). El aprendizaje-servicio (APS) como estrategia para educar en ciudadanía. *Alteridad, 12*(2). https://doi.org/10.17163/alt.v12n2.2017.04

Petkus, E. (2000). A Theoretical and Practical Framework for Service-Learning in Marketing: Kolb's Experiential Learning Cycle. *Journal of Marketing Education, 22*(1), 64–70. https://doi.org/10.1177/0273475300221008

Pizarro-Torres, V., Hasbun-Held, B., & González-Cifuentes, T. (2015). Innovación en docencia: metodología de "aprendizaje y servicio" en contabilidad de costos. *CAPIC REVIEW, 13*, 89-99. https://doi.org/10.35928/cr.vol13.2015.47

Poon, P., Chan, T.S., & Zhou, L. (2011). Implementation of Service-Learning in Business Education: Issues and Challenges. *Journal of Teaching in International Business, 22*(3), 185-192. https://doi.org/10.1080/08975930.2011.653746

Pontes, N., Dorado-Santana, & Baptista-Calunga, A. (2020). A gestão documental em instituições escolares: directrizes para o desenho de um sistema de gestão electrónica de documentos escolares. *Bibliotecas. Anales de Investigación, 16*(1), 23-45. https://bit.ly/3nmtZln

Programa Aprendizaje Servicio de la Facultad de Ciencias Empresariales, Universidad del Bío Bío. https://bit.ly/ApSFACE

Puebla-Martínez, B., Rodas-Alfaya, L., & Guede-Cid, R. (2018). Principales factores que intervienen en el diseño de los planes de aprendizaje en materia digital para mayores de 65 años. *Revista Opción, Especial*(18), 1929-1956. https://bit.ly/3a9nQFk

Rodríguez-Izquierdo, R.M. (2020). Aprendizaje Servicio y compromiso académico en Educación Superior. *Revista de Psicodidáctica, 25*(1), 45-51. https://doi.org/10.1016/j.psicod.2019.09.001

Rodríguez-García, Y.M. (2017). Reconceptualización de la educación en la era digital: Educomunicación, redes de aprendizaje y cerebro factores claves en los actuales escenarios de construcción de conocimiento. *Revista de Comunicación de la SEECI, 42*, 85-118. https://doi.org/10.15198/seeci.2017.42.85-118

Rubio, A. (2018). Técnicas de aprendizaje de conocimiento científico a partir de textos. *Investigaciones sobre Lectura, 10*, 1-29. https://bit.ly/38mH7AL

Sánchez-Marín, F.J., Parra-Meroño, M.C., & Peña-Acuña, B. (2019). Experiencias de trabajo cooperativo en la educación superior. Percepciones sobre su contribución al desarrollo de la competencia social. *Vivat Academia, Revista de Comunicación*, 147, 87-108. http://doi.org/10.15178/va.2019.147.87-108.

Seider, S.C., Gillmor, S.C., & Rabinowicz, S.A. (2011). The Impact of Community Service Learning Upon the Worldviews of Business Majors Versus Non-Business Majors at an American University. *Journal of Business Ethics, 98*, 485-503.

https://doi.org/10.1007/s10551-010-0589-8

Seifer, S.D., & Connors, K. (2007). *Faculty Toolkit for Service-Learning in Higher Education*. National Service Learning Clearinghouse. http://bit.ly/seiferandconnors

Simó-Algado, S., Ginesta-Portet, X., & de San Eugenio-Vela, J. (2014). Aprendizaje Servicio Universitario: Creando empleo a partir de la emprendeduría social. *Historia y Comunicación Social, 18*, 627-638. https://doi.org/10.5209/rev_HICS.2013.v18.44265

Stefaniak, J.E. (2015). The implementation of service-learning in graduate instructional design coursework. *Journal of Computing in Higher Education, 27*, 2-9. https://doi.org/10.1007/s12528-015-9092-7

Tapia, M.N. (2007). El aprendizaje-servicio en las organizaciones de la sociedad civil. En *Programa Nacional Educación Solidaria. Aprendizaje y Servicio Solidario en las organizaciones de la sociedad civil*. Programa Nacional Educación Solidaria. https://bit.ly/ApSenlasorgs

Traver-Martí, J.A., Moliner-García, O., & Sales-Ciges, A. (2019). Negociando el currículum: Aprendizaje-servicio en la escuela incluida. *Alteridad, 14*(2), 195-206. https://doi.org/10.17163/alt.v14n2.2019.04

Vidal-Raméntol, S., & Fuertes-Camacho, M.T. (2013). La dinámica de grupos para el trabajo cooperativo facilita la comunicación. *Revista de Comunicación VIVAT Academia, 123*, 1-12. https://doi.org/10.15178/va.2013.123.1-12

Service- learning enactment in International Baccalaureate Schools in Argentina

Aprendizaje-servicio en escuelas argentinas de Bachillerato Internacional

Dra. Liliana Mayer *is a researcher at CONICET with a headquarter in Universidad Nacional de Misiones (Argentina) (lzmayer@gmail.com) (https://orcid.org/0000-0002-7364-4048)*

Lic. Wanda Perozzo-Ramírez *is a PhD student at Universidad Nacional de La Plata (Argentina) (wperozzo79@hotmail.com) (https://orcid.org/0000-0003-2763-5113)*

Abstract

The article analyzes the ways in which service-learning (SL) projects in schools in the metropolitan area of Buenos Aires, Argentina delivering the Diploma Program (PD) of the International Baccalaureate (IB). Through a qualitative study, which combines in-depth interviews with institutional agents, documentary analysis and classroom observations in state and private schools affiliated to the Program, the different senses of the activities that students, teachers and authorities carry out for the CAS component of the DP are investigated. The results of the study show dissimilar conclusions. When it comes to private schools associated with middle and upper-middle sectors, the SL projects appear oriented towards social action or service, aimed at reducing the deficits of a third party. On the contrary, when it comes to state schools, where students have socioeconomic profiles that are closer to the beneficiaries of those of the private schools, they manage to transcend this orientation to achieve tangible or intangible community assets. This disadvantaged profile is a reason for some state institutions to cancel SA projects that transcend specific and material solidarity actions. The article deduces the importance of institutional agents in the promotion of these projects: although these are spaces, where young people are the protagonists, the framing, empowerment or restriction for their realization will depend on adults, their knowledge, predisposition and valuation regarding SL as pedagogy and practice.

Keywords: Service Learning (SL), educational inequalities, cosmopolitism, internationalization, school management, International Baccalaureate.

Resumen

El artículo analiza los modos en que se realizan proyectos de aprendizaje-servicio (ApS) en el marco del Programa Diploma (PD) del Bachillerato Internacional (IB) en el área metropolitana de Buenos Aires, Argentina. A través de un estudio cualitativo, que combina entrevistas en profundidad a agentes institucionales, análisis documental y observaciones de clase en escuelas estatales y privadas, se indaga en los diversos sentidos de las actividades que estudiantes, docentes y directivos realizan para el componente Creatividad, Acción y Servicio (CAS) del PD. Los resultados del trabajo muestran conclusiones disímiles, cuando se trata de escuelas privadas asociadas a públicos de sectores medios y medios-altos, el ApS aparece orientado a la acción o servicio social, destinado a mermar déficits de un tercero. Por el contrario, cuando se trata de escuelas estatales, donde los estudiantes tienen perfiles socioeconómicos más cercanos a los beneficiarios de las escuelas privadas, logran trascender dicha orientación para lograr bienes comunitarios, tangibles o intangibles. Este perfil desventajado es motivo en algunas instituciones estatales para cancelar proyectos de ApS que trasciendan acciones solidarias puntuales y materiales. Del artículo se deduce la importancia de los agentes institucionales en la promoción de estos proyectos: si bien se trata de espacios donde los jóvenes son los protagonistas, el encuadre, habilitación o restricción para su realización dependerá de los adultos, de sus conocimientos, predisposición y valoración respecto del ApS como pedagogía y práctica.

Descriptores: Aprendizaje-servicio, desigualdades, internacionalización, cosmopolitismo, gestión educativa, Bachillerato Internacional.

1. Introduction

Studies of educational processes in Argentina agree in fragmentation (Tiramonti, 2004) as a feature of the educational field in the country, related to the subsystems that make up state and private schools. These studies (Braslavsky, 1985), address educational segmentation related to deinstitutionalization processes (Dubet & Martuccelli, 1999) and loss of symbolic effectiveness of institutions (Mayer, 2009), as a result of the impacts of globalization on the education system, and of transformations in local educational legislation that decentralized institutions, agents and participants. Such fragmentation allows to recognize the social and educational space as areas without reference to a whole. Each fragment is transmitted as a boundary of reference, an institutional aggregate with common normative and cultural references.

In this context of the loss of symbolic effectiveness of certain patterns, it is noticed the proliferation of educational projects linked to the global world (Mayer, 2020), which respond to the incidence of global education speeches, the shift toward pro-market education, and reconfigurations of national and local educational policy. According to Beech and Barrenechea (2011), Argentina is seen as a black swan in the implementation of programs linked to internationalization, because of its educational tradition, and because of its resistance of such ideas by the actors involved — trade unions. Thus, part of the institutions that adhere to these narratives belong to the private sphere, since they have more autonomy and other institutional actors are involved (Larrondo & Mayer, 2018; Mayer, 2020). Thus, there were spaces that could not be adapted, while others opened spaces where foreign speeches and practices were installed. According to Ball and Youdell (2008), the Argentine case would correspond to the case of exogenous privatization of the education system, alluding to specific components that adopted logic toward privatization but not for profit.[1]

These lines delimit the context and features in which international programs and agencies are inserted in Argentina (Beech, 2011).

This is the case of the International Baccalaureate Organization (IBO), which offers several programs to schools around the world, with the Diploma Program (DP) being the most popular. It constitutes a program for the last two years of high school that, once approved, is universally recognized, allowing automatic entry to a diversity of universities in the world. To offer DP, schools go through arduous internal audit and enforcement processes; and this applies, in particular, to private schools that decide to apply. State schools, which adhere to different modalities in our continent (Beech et al., 2019; Resnik, 2015, 2016; Bunnell, 2008; Doherty et al., 2012), do it so through framework agreements between the judicial educational authorities and the IBO. For both cases, these agreements guarantee that the program will contemplate the dictation of seven subjects, having as mandatory Language and Mathematics, Theory of knowledge, the elaboration of a final monograph after a two-year research work, and the development of the CAS component in which students perform certain certified activities that grant enough credits to complete the DP.

The CAS component is included in the SL, understood as pedagogical service projects integrated into the curriculum, in which students apply, verify and deepen school learning by contributing to the solution of a community problem. SL, as a pedagogical practice, applies disciplinary concepts to specific spaces and problems, offering levels of community development to the local communities (Furco, 2002; Castillo et al., 2007; Tapia, 2017, 2018).

Argentina has 61 schools that offer the DP, ten of which are state schools. Private schools are mostly located in the Metropolitan Area of Buenos Aires (AMBA) and correspond, beyond their heterogeneity, to elite institutions (Bourdieu, 1984, 1986; Kahn-Raman, 2010). State- schools, excepting one in the province of

Buenos Aires, are located in the City of Buenos Aires (CABA), and accessed the program after an agreement signed between the authorities of the Ministry of Education, allowing schools to be part of the IB world without paying the IBO fees.

In the case of CABA state-run schools, the Ministry assumes the costs—of institutions and students—which opens up discussions about the use of educational resources and the equity in their distribution. This jurisdiction is not casual, as it has been governed by more than fifteen years ago by the *PRO-Cambiemos* alliance, with an educational look more prone to cosmopolitanism and the market than the rest of the jurisdictions. The fact that only ten schools have decided to participate in the program shows the dissent that institutional projects often assume to the black swan mentioned. We point out these processes as specific to the argentine educational reality that differs from the ways in which the IB has been implemented in other countries of the region, with promotion and growth from the state sector, as is the case of Peru, Ecuador and public-private joints in Costa Rica (Beech et al., 2019). Regarding the implementation of the DP of the IB, we note that this is an optional program for students. In some institutions, depending on their management, this implies the creation of parallel courses for students who enroll. In others, all students have the same curriculum, and some take exams and other Program requirements. Most educational institutions try to universalize them through various strategies, but for cost, lack of motivation, among others, often such strategies are difficult.

2. Methodology

This article is part of a broader research that analyzes the reasons why certain educational institutions decide to be part of the DP and the differences in its application. Based on these general objectives, we have created the specific ones that are related to the type of students enrolled in IB schools; the contribution to the educa-

tional inequality and fragmentation that these institutions generate; the ways in which speeches and global education agencies in Argentina are present; and their influence on local educational policy. For this purpose, authorities — coordinators of the IB and CAS area — and teachers from several IB schools, both state and private subsystems, were interviewed.

For the proposed analysis we will use the ongoing field work that initiated in 2017, in which in-depth[2] interviews were conducted with educational agents from schools in both areas of integrated management to the IB through the implementation of the DP. The interviews are complemented by classroom observations, archival work in institutions, and analysis of programs and web pages from ten selected institutions located at AMBA.

We understand that schools are not speech reproduction organizations, but agents and agencies with meaning and objectives. In this sense, we take the notion of micropolitics (Ball, 2002), to refer to spaces of power struggle, where the actors fight for control, and where different objectives and interests that are ideologically and valuably oriented are crystallized, and the concrete and unique way in which these micropolicies create macropolicies. Agents and institutions are not reduced to simple players of programs — as packages — but they, consciously or not, intervene in their delimitation and construction: there is negotiation, chance and ad hoc actions in schools. If we maintain that policies and programs in general —educative in particular— are mediated by speeches and international agencies (Beech, 2009) and, despite the state centrality, there are other organizations with or without profit that are involved in the delimitation of educational policies and programs, both in their development and in their implementation, we can affirm following Ball et al. (2012) that Educational policies and programs are constantly reinterpreted and transformed by the different actors involved in the process, in diverse contexts as regards their materiality, history and power

relations, where the creativity of schools and their actors play an essential role in interpreting and implementing these policies and programs (Beech et al., 2019).

We affirm that education involves a work based on the other, and that a specific student profile is created from the institutional projects, margins of freedom and negotiation mentioned, since the teachers with their expectations, methods, ways of managing the class, concepts of learning, order, work and cooperation, give rise to the exercise of this profile in the dynamics of each school (Ball et al., 2012).

3. Results

3.1 Private Schools: Helping the "Other" and Developing Personal Capabilities

As we mentioned, the IB has certain features in its insertion in Argentina, through its main implementation in private schools for elite audiences. A former IB teacher and coordinator, who currently serves as a consultant to the organization, talks about the experience:

> The program helps (students) to relate with the community through CAS, for me it is one of the main components by how it takes the students out from their context, as it links them to something else, as it makes them see another reality that normally they do not see. It is a benefit for both the state school and the private school, because the two (types of) schools are coming out of their reality and they relate with another school or with the community by needing the other.

This perception is mentioned in almost all of the teachers and managers involved. Several fragments stand out the importance of opening up students' horizons in elite schools. The interviews that refer to it are focused in the "s" of the CAS component and in the ways in which, from various pedagogical and solidary

oriented actions, privileges considered universal by students can be denatured Mayer, 2020). It is due, both to their privileged position and to their professional projection, that authorities and teachers see positively the development of these projects and competences related to CAS, as well as the inculcation of ethical commitment that is expected to last beyond the educational trajectory. The CAS component articulates SL activities by integrating the development of pedagogical projects and practices in which students apply their learning in specific community problems. The objective of the SL is oriented toward the articulation of pedagogical projects implemented in the DP related to the linking of students in the community.

As for the dimension of *helping the other*, we note that many schools had developed experiences before joining the IB and, on the basis of their membership, these have intensified and formalized. According to a SL coordinator:

> I feel that we had already had the tradition of the abroad trip that was transformed when we saw the activities we needed to do in CAS. Service, CAS´ S, is what you will articulate, and we also had to add other elements to the trip as it was a two-year program. The solidarity plan grew enormously. Before the change the students prepared the trip, now besides preparing the trip and earning the right to travel, the students have to course modules: one is called institutions where once a week they have to go to an institution in the area and offer their help, give school support, go to Juanito´s home, and this change we have done is very valuable. I remember that I told the principal, '[the trip to] abroad is beautiful, but here it seems that they live in the core of the neighborhood, they take the bus, they do a thousand kilometers to visit poverty'.

A coordinator from another institution who had a previous program says:

> What happens is that CAS is bigger: it is usually interpreted as a service to the community

and it is more than that, it seeks to develop creativity, action, the use of the body and the vocation of service. The school worked on community service and what CAS did was to set a framework. It is now in a cycle of greater importance within the framework of service learning, and the school is very interested that there is learning in service thanks to projects promoted by the teachers. The latter caused a linking with the community with people from the neighborhood dedicated to that, to know the surroundings of the campus, and the needs of the community.

There is the idea of solidary vertical learning in the SL toward constructions of horizontal solidarity (Tapia, 2017), related to pedagogies oriented to the formation of citizens. In both cases, its authorities refer to modifications in their levels of commitment to the accompanying "causes," which seek to incorporate transversely into their daily lives, as well as in the systematization they give their projects. Following the proposal of the SL, the projects articulate curriculum content that is specific to the theoretical and school age of the students. This is relevant because it allows to improve the performance of the students involved, as well as to increase their sense of institutional belonging (Tapia, 2018). Beyond the differences in each case, we note that the conduction of SL projects is part of the institutional identity—and personal biography—of those who perform it: "The program of [the school of] frontier exists. The boys know they are involved in it and wait for the moment of the year to travel."

As mentioned in other studies (Billig, 2013), institutionally it promotes a way to denature students' privileges while giving an ethical commitment to having them. Solidarity trips have a central place, a cross-sectional axis of the curriculum that occupies different moments according to the school calendar. Students mobilize during the previous months with various actions related to preparing for the trip: obtain funding and resources needed for doing the improvements in the sponsored school, plan activities, and

more. Solidarity trips are typical of Argentina if compared to other experiences (Mayer, 2019). In relation to IB institutions in developed countries, these actions are concretized in international trips, which means individual and summer stays. As with all other SL projects, trips correspond to institutional projects: while in other countries students earn credits with actions they decide to carry out, which exceed the agreements and initiatives of the schools (Billig, 2013; Billig & Good, 2013). In Argentina, these are initiatives within the country that are institutionally channeled. This difference is central, as it involves the educational community—teachers, authorities, parents, and students— in intentionally chosen projects with institutional and pedagogical objectives set by the school, and not just as a civic duty that is said institutionally. This makes a national difference, observed in all schools versus other latitudes: solidarity is conceived as an institutional aspect and not as individual actions, although it aspires to encourage practices that will last and can be replicated outside the school environment. An important aspect is that solidarity trip is not part of educational trip, as it is carried out in the framework of strengthening institutional linkages with internationalization and student mobility processes in the framework of the DP program.

It is relevant to mention the global and local concepts as an approach that guides the objectives of IB programs, and how such principles are resigned in the implementation of SL in the institutions addressed. In this sense, the concept of globalization is widespread as processes that form citizenship from the educational sphere that overflow the national identity as an institution in the formation of individual and collective senses. The sense of the global in IB schools implies the recognition of diversity, new forms of coexistence, values such as tolerance and vocation as means of building a subject belonging to a local community, in relation to the regional and the international.

The global component of IB programs constitutes a core of representations in which

education is reconfigured in the framework of globalization as a trend that hegemonizes institutional difficulties. Such representations around the potential of educational internationalization seek to transform realities by promoting skills and competences that shape global citizen practices based on solidarity, respect for differences, coexistence as a way of living or reflexivity as a possibility of resolving conflicts.

In contrast to the institutions that have history in the development of solidarity projects, we find others that do not:

> Researcher: Was there any program before CAS?
> Coordinator: No, not really. It is still something that costs a lot
> R: But, for example, while I was waiting, I saw something from an environmental program. Isn´t it considered as CAS?
> C: No, not that.
> R: Why?
> C: That was or is an initiative of a biology professor who decided to conduct activities related to the coast of Rio [de la Plata] that is near the school. But it is something specific and part of the subject.

For this reason, we note that not all institutions have solidarity-based approaches prior to their inclusion in the DP. This lack of history in this area is a difficulty in delineating actions today, along with other mismatches in the implementation at the general level of the IB. The latter is highlighted because SL is delimited here, rather than being conceived as a constitutive element of the school — something that the previous institutions have done— even with the different stages and dissimilar commitments of the institutional evolution.

3.2. SL in state schools: deficiencies as strengths

We discussed ways in which school learning is based in private schools for elite audiences.

However, this transnational network includes institutions of the state management subsystem to a lesser extent for the Argentine case. Various research (Braslavsky, 1985; Gamallo, 2015; Mayer, 2012; Narodowsky & Andrada, 2001) show how the middle and middle-high sectors migrated from state schools to the private sector, a movement that deepened in recent decades. In relation to the endowed public, although they remain in some specific state schools, their enrollment is mostly concentrated in private schools. However, the percentages of private sector enrollment show that the transition to this subsystem is not exclusive to the elites, since the percentage reaches 30% of the national enrollment (Feldfeber et al., 2018), but in urban centers, such as the City of Buenos Aires, it reaches 50% (Larrondo & Mayer, 2018). Studies such as Gamallo's (2015) indicate that, to a lesser extent, the most disadvantaged sectors of society were part of this migration to the private education sector. This makes a difference with the schools analyzed that are attended by privileged audiences with those that host state schools, as these institutions cannot assume the role of denaturing the privileges of small portions of society. Thus, for an interviewed rector, the SL process is complicated:

> Here it is very difficult, they do some things, some raffles, but the reality is that students are closer to being the recipients of those actions than to being the ones who generate them.

In the face of this same situation and socio-economic profiles, authorities in another state school adapted the CAS component, as the situations are:

> Before that, I worked in two private schools that had the IB and coordinated the area of learning-service. It was easier there in every way: The IB was more settled, it was better known. It is not the same in this school: Very few students take it. While everyone is involved in the workshop, the commitment and demand are not the same. The other thing that simplified it was that it was

easy to identify a third party to work with. Here you cannot do that.

And continues:

Here we have students in very complex situations. You cannot ask them for economic support. What we did was to combine the specific knowledge of the students, as students of a technical school, with community work. We then developed a tool to measure the PH of Palermo´s Lake and nearby streams. Since we are a state school, it is easy to get donations of the necessary equipment, something we would not get as a private school. It is a project to improve the quality of life of the community.

Unlike the experiences of the private sector, there is a specific classroom space to develop the project, which corresponds to the *Workshop* subject. There, the CAS area coordinator works by contributing with his/her knowledge of the SL, and teachers of the specific area develop the project; these teachers graduated in this institution, so these projects are mediated by their institutional affiliation, paying for the sense of belonging and educational community. While the teachers in charge contribute to the specific knowledge, the CAS manager contributes to the knowledge of the area and the managements with companies and donations, which have an impact on the links and working trajectory of the students.

4. Discussion

In previous paragraphs we have reported the projects of schools within the CAS area of the IB. This does not mean that there are no SL experiences beyond the DP, but that these schools incorporate them from it. In relation to private schools, we identify two issues on a regular basis: first, the development of projects referring to another person to help, and the existence of previous experiences. Following the definition of SL, we affirm that such actions are framed in the idea of the realization of community services, where

although there was intentional solidarity there was no connection with the pedagogical contents, i.e., they have no basis in the curriculum, as mentioned by the authorities interviewed. In turn, the logic of community service implies less commitment from students—and from the institution—and less impact from actions, since they are not pedagogically oriented, nor structured over time (Spring et al., 2008).

Integration into the SL curriculum involves higher levels of institutional commitment, as it involves the deployment of strategies and resources—human, material, and symbolic—to carry out the project. This institutional commitment is key for narratives and repertories to install their development, preventing their implementation from leading to voluntary positions of teachers.

Around the inclusion of SL in these schools through the IB, a limitation arises. As we indicated at the beginning, because it is not compulsory, students decide to join the DP optionally. This can lead to different levels of commitment, since it is mandatory for some to take it, and for others it is not, according to institutional requirements. Here the institutions have the possibility to incorporate it beyond the IB.

In relation to both areas of management, what emerges from the interviews is a partnership between SL and community service, where the main idea is helping another person who is vulnerable in socio-economic aspects. For this reason, as mentioned in the case of a private school, community actions were hidden for the environment or, in other words, previous knowledge of the authorities of that institution prevented such activities from being considered as SL experiences, despite the existence of manuals and literature in the area that encourage these projects.

We also note, in state schools, experiences are limited by the socio-economic of the students, without exploring other options. Similarly, it seems that the conduction of the activities analyzed corresponds to a *logic of discarding*: according to the institutional authori-

ties, if traditional solidarity activities cannot be conducted, others are explored.

In both areas of management, a responsible and active citizenship ethic prevails, where students-citizens must commit to their environment. For private schools, such a commitment is socially privileged, while in the state experience that manages to motorize projects, part of the collective finds a social usefulness to the knowledge. In this regard, we observe narratives that stress inequalities in institutions implementing IB programs. With regard to SL pedagogical practices, we note that they continue to reinforce local, national or international identities. Although this concept of globalization is not restricted to the educational field in which these programs are placed, it legitimizes fragmentary assessments of internationalization as a range of opportunities offered by the IB world, linked with cosmopolitism as ideal.

The construction of global citizenship encompasses complexities of identities, as they refer to multiculturalism and diversities as ethical values of the global world. The relationships between the global and the local, though fragmented, reinforce representations of justice, peace, tolerance and coexistence by making service, commitment and individual reflexivity tools for the development of skills and competences of global citizenship. These components support the logic of CAS and SL as a pedagogical project, enabling students to generate solidarity in community settings. In both cases, the recognition of young people as protagonists and responsible is a unifying factor in these practices.

Considerations around two postures — and the possible nuances — are proposed: on the one hand, they *empower* students to recognize violated rights and the fact that they are the ones who must look for solutions, often making claims to the state at any level. On the other hand, these non-institutional participation formats can weaken state actions, which are carried out by other means and in partnership with intermediate sectors — NGOs — contributing to major debilitations of state institutions. In turn, they mark inequalities between schools that can mobilize resources and those that fail to do so. This tends to deploy depoliticized forms of collective action where politics is restricted and other actors and logics are involved. Thus, we notice the inequalities in the implementation of IB programs in the various areas of management, tensions that reinforce the resistance of the institutionality of the educational system to the adaptation to globalizing logic of the pedagogical programs, especially in the state schools, since they imply inward elite processes that leads these schools to implement flexibility of the IB program components, which does not occur in the private schools studied.

5. Conclusions

In the article we discuss the ways in which SL projects are implemented in private and state schools that adhere to the DP of the IB. The implementations of SL in these schools are framed in the existing national educational regulations that emphasize solidarity education as a pedagogical device for its linkage with local problems, strengthening processes of citizen formation.

In the case of private schools carrying out the projects — with a background in their institutional history with regard to community projects — they can be understood within a logic that aims to train individuals awareness of their privileges to *open them to the world* and to get them out of their *comfort zone*. With these practices a logic of *good citizens* emerges, committed to the society as a return for their social position. These narratives seem to be in line with others that promote other participatory processes, in which political representatives cannot act or mobilize for various reasons. These *aids* are specific and individualized, even if they are part of a collective: an institution, organization or target group that can be attended is determined, without pretense of altering the *status quo*.

Although it is positive, one disadvantage shown by the authorities is that of presenting depoliticized repertoires: Solidarity projects imply experiences to support others, offered in relation to shortcomings and whose beneficiaries are not usually problematized as subjects violated in essential rights, leading to the strengthening of the original positions (Cookson et al., 2010; Tiramonti & Ziegler, 2008): according to the segments analyzed, solidarities are conceived as practices that expand student universes, without seeking integral transformations. Actions are being proposed to alleviate disadvantaged positions, such as collaborating with rural schools, without changing essential situations. There is a question about the role of schools in seeking structural solutions.

We observe in these schools that there were voluntaries and the development of private solidarity that tries to help with altruistic narratives (Mayer, 2013). We point out projects related to practices derived from Corporate Social Responsibility; voluntary and community processes. These processes are linked to narratives that authorities define as appropriate for their schools, which are more focused on the benefits students can gain than on their impacts on communities. Also, as we mentioned, institutional projects that could be incorporated into the SL are not observed by the authorities.

In the case of the state schools analyzed, there are two components to emphasize: On the one hand, the authorities that understand SL as a key support element when considering that students are the ones who might need the support do not find any motivation in carrying out projects in this area. This absence implies follow-up difficulties by IB authorities, which certify the functioning of the CAS. On the other hand, in the second state school studied, the apparent difficulty —the socioeconomic category of the population— was presented as a challenge to think about alternatives to projects conceived in a comprehensive way: as part of a community that understands the need for sustainable devel-opment and develops a more horizontal logic, where SL narratives amplify, compared to narrow looks of the private schools studied. The difficulties lead the institutions to recognize problems common to society by guiding students as citizens and future professionals with an effective and technical role.

Notes

1   Another case mentioned by the authors (Ball & Youdell, 2008), refers to the exogenous privatization of education, corresponding to a privatization of education, generating quasi-markets and having the Chilean case as the main expression.

2.   In all the interviewed, their repertoires were approached comprehensively, taking into account the specific contexts in which they develop. From our perspective, every social actor produces it in narrating a given situation. We agree with Saltalamacchia (1992) when pointing out that the individual is "a place of joining" a particular set of social relations" (p. 38). The interview should be understood as the framework of a theoretical elaboration in which no full agreements or similar advantages will arise, but instead interpretations that did not exist before the relationship (Saltalamacchia, 1992).

References

Ball, S. (1989). *La micropolítica de la escuela: hacia una teoría de la organización escolar.* Paidós.

Ball, S., Maguire, M., & Braun, A. (2012). *How schools do policy. Policy enactments in secondary schools.* Routledge.

Ball, S., & Youdell, D. (2008). *Hidden Privatization in public Education.* University of London.

Beech, J. (2011). *Global Panaceas, Local Realities: International Agencies and the Future of Education.* Peter Lang.

Beech, J., & Barrenechea, I. (2011). Pro-market educational governance: is Argentina a black swan? *Critical Studies in Education*, *52*(3), 279-293. https://doi.org/10.1080/17508487.2011.604077

Beech, J., Guevara, J., & Del Monte, P. (2019). *Diploma Programme Implementation in Public Schools in Latin America: The cases of Buenos Aires, Costa Rica, and Peru.* International Baccaulareate Organization. https://bit.ly/3lWXWIp

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste.* Trans. R. Nice. Routledge & Kegan Paul.

Bourdieu, P. (1986). *The forms of capital. In Handbook of theory and research for the sociology of education,* ed. J. Richardson, 241-58. Greenwood.

Billig, S. (2013). *Impact of Participation in CAS on Students' Civic mindedness and engagement.* RMC Research Corporation. https://bit.ly/2FhXljH

Billig, S., & Good, B. (2012). *International Baccalaurete IDiploma Programa. Evaluation Report. Study of North and South Students Civic Mindedness. Phase II*. RMC Research Corporation. https://bit.ly/3jYfvWx

Braslavsky, C. (1985). *La discriminación educativa en Argentina*. Miño y Dávila.

Bunnell, T. (2008). The global growth of the International Baccalaureate diploma programme over the first 40 years: A critical assessment. *Comparative Education, 44*(4), 409-24. https://bit.ly/2R91TeW

Castillo, J., Erales, D., & Sánchez, V. (2007). Manual de Aprendizaje-Servicio. Ministerio de Educación. https://bit.ly/3k1yKhQ

Cookson, P., & Hodges Persell, C. (2010). Preparing for power: Twenty Five years later". In A. Howard, & R. Gaztambide Fernández (Comps.), *Educating elites. Class Privilege and educational advantage*. Rowman and Littlefield Education.

Doherty, C., Luke, A., Shield, P., & Hincksman, C. (2012). Choosing your niche: The social ecology of the International Baccalaureate Diploma in Australia, *International Studies in Sociology of Education*, *22*(4), 311-332. https://bit.ly/3m5LYfp

Dubet, F., & Martuccelli, D. (1999). *¿En qué sociedad vivimos?* Losada.

Feldfeber, M., Puiggros, A., Robertson, S., & Duhalde, M. (2018). *La privatización educativa en Argentina.* Documentos de Trabajo. Instituto de Investigaciones Pedagógicas "Marina Vilte". Secretaría de Educación CTERA. https://bit.ly/3m0kGqR

Furco, A. (2002). Is Service-Learning Really Better than Community Service? A Study of High School Service. In A. Furco, & S.H. Billig (Eds.), *Advances in Service-Learning Research: Vol. 1. Service-Learning: The Essence of Pedagogy*. Information Age Publishing.

Gamallo, G. (2015). La "publificación" de las escuelas privadas en Argentina. *Revista SAAP: Sociedad Argentina de Análisis Político, 9*(1), 43-74. https://bit.ly/2GIrp8M

Kahn-Rahman, S. (2010). Getting in: How elite schools play the college game. In A. Howard, & R. Gaztambide Fernández (Comps.), *Educating elites. Class Privilege and educational advantage.* Rowman and Littlefield Education.

Larrondo, M., & Mayer, L. (2018). *Ciudadanías juveniles y educación. Las otras desigualdades.* Grupo Editor Universitario.

Mayer, L. (2009). *Hijos de la democracia. ¿Cómo viven y piensan los jóvenes?* Paidós.

Mayer, L. (2012). La *conflictividad escolar cotidiana. Estrategias para su minimización*. (Tesis de Doctorado). Universidad de Buenos Aires, no publicada.

Mayer, L. (2019). Viajar para aprender y aprender viajando. Estrategias educativas de sectores aventajados de Argentina. Universidad Politécnica Salesiana, *Universitas, 30,* 41-62. https://bit.ly/35mcHOX

Mayer, L. (2020). Grandes Proyectos para pequeños públicos. El caso de las escuelas internacionales en Argentina. En L. Mayer, M. Lerchundi, & M.I. Domínguez, (comps) *Infancias, juventudes y desigualdades: Experiencias, procesos, espacios.* CLACSO.

Narodowski, M., & Andrada, M. (2001). The privatization of education in Argentina, *Journal of Education Policy*, *16*(6) 585-595. https://bit.ly/35h8Dzr

Resnik, J. (2015). The incorporation of the International Baccalaureate in Magnet schools in the United States: Survival strategies of low performing schools. *Educational Practice and Theory*, *37*(2), 79-106. https://bit.ly/33b6Klm

Resnik, J. (2016). The development of the International Baccalaureate in Spanish speaking countries: A global comparative approach. *Globalisation, Societies and Education*, *14*(2), 298-325. https://bit.ly/2R5CbrJ

Saltalamacchia, H. (1992). *La historia de vida: Reflexiones a partir de una experiencia de investigación*. Ediciones SIJUP.

Spring, K., Grimm, R., & Dietz, N. (2008). *Community Service and Service-Learning in America's*

Schools, 2008. Office of Research and Policy Development, Community Service and Service-Learning. https://bit.ly/2FjoDpC

Tapia, M. (2017). Aprendizaje-servicio, un movimiento pedagógico mundial. En L. Rubio, & A. Escofet (Coord.), *Aprendizaje-servicio (ApS): Claves para su desarrollo en la Universidad.* Octaedro-ICE.

Tapia, M. (2018). *Guía para desarrollar proyectos de aprendizaje-servicio solidario*. CLAYSS. https://bit.ly/3md8rHI

Tiramonti, G. (2004). *La trama de la desigualdad educativa. Mutaciones recientes en la escuela media*. Manantial.

Tiramonti, G., & Ziegler, S. (2008). *La educación de las elites. Aspiraciones, estrategias y oportunidades*. Paidós.

Miscellaneous Section
(Sección Miscelánea)

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Research and learning: Challenges in Latin America towards 2030

Investigación y aprendizaje: Retos en Latinoamérica hacia el 2030

Dr. Julio Juvenal Aldana-Zavala is a professor and researcher at Universidad Nacional Experimental Francisco de Miranda y Red de Investigación Koinonia (Venezuela) (julioaldanazavala@gmail.com) (https://orcid.org/0000-0002-7934-9103).

Dr. Patricio Alfredo Vallejo-Valdivieso is a professor and researcher at Universidad Técnica de Manabí (Ecuador) (patricio_2871@yahoo.es) (https://orcid.org/0000-0003-3248-7864).

Dr. Josía Isea-Argüelles is a professor and researcher at Universidad Nacional Experimental Francisco de Miranda y Red de Investigación Koinonia (Venezuela) (josiaisea@gmail.com) (https://orcid.org/0000-0001-8921-6446).

Abstract

Education has had an epistemic turn in its pedagogical action, going from the traditional model focused on the teacher, to one focused on the student; at the same time, research has been encouraged towards new methodical aspects, being a key factor in learning. Today, it is essential to merge learning and research with the function of generating knowledge from new educational angles. UNESCO and other entities focused on education have proposed the creation of an educational model for lifelong learning. Thus, this research presents the scope of research and learning in Latin America, for this purpose it was proposed as a central objective: To analyze research and learning as challenges in Latin America towards 2030, in this sense a descriptive methodology was used with a bibliographic design, taking as a population sample, the review of 52 articles from journals indexed in Scopus, Web of Science, Scielo, Redalyc, Latindex Catalog 2.0. This with the purpose of systematizing researchers' proposals, identifying pertinent factors towards the achievement of a transversal education as a means for the achievement of the SDG. Among the conclusions is the need to form an epistemology that makes possible an ecology of knowledge in order to have educational, sustainable and productive institutions as the core of the global society.

Keywords: Educational research, organization, activity learning, alternative education, educational policy, educational strategies.

Resumen

La educación ha tenido un giro epistémico en su accionar pedagógico, transcendiendo del modelo tradicional enfocado en el docente, hacia uno focalizado en el estudiante. En paralelo, la investigación se ha fomentado hacia nuevas vertientes metódicas, siendo un factor clave en el aprendizaje. Hoy día es esencial la fusión del aprendizaje e investigación con la función de generar conocimientos desde nuevos ángulos educativos. Además, la UNESCO y otros entes enfocados a la educación, han propuesto la conformación de un modelo educativo para aprender a lo largo de la vida. Es así que la presente investigación presenta los alcances en investigación y aprendizaje en Latinoamérica, para tal fin se planteó como objetivo central: Analizar la investigación y aprendizaje como retos en Latinoamérica hacia el 2030, en este sentido se empleó una metodología descriptiva documental con un diseño bibliográfico, teniéndose como muestra poblacional, la revisión de 52 artículos de revistas indizadas en Scopus, Web of Science, Scielo, Redalyc, Latindex Catálogo 2.0. Esto con la finalidad de sistematizar propuestas de investigadores, identificándose factores pertinentes hacia la consecución de una educación transversal como medio para el logro de los ODS. Entre las conclusiones se tiene la necesidad de formar en una epistemología posibilitadora de una ecología de saberes en procura de contar con instituciones educativas, sostenibles y productivas como eje medular de la sociedad global.

Descriptores: Investigación pedagógica, organización, aprendizaje activo, educación alternativa, política educacional, estrategias educativas.

1. Introduction

Global education moves between the information society to the knowledge society, and both involve technological and computer science and vary as they propose that the student must transform the information received (knowledge society), as proposed by UNESCO (2005). Learning involves fostering in the student an integral interconnection process with the multiple realities in which it develops, being necessary to recognize oneself and the other as cognitive and intelligible emotional individual to build from intersubjectivity an environment of mutual respect; to evaluate the capacities and cooperative work for the construction of knowledge by forming educational scenarios where ethics is transversal in the reasoning of understanding the person as a transcendental entity for the construction of a better society. Thus, the research aims to analyze research and learning as challenges in Latin America by 2030.

2. Method

The methodology used is descriptive-documentary with a bibliographic design, which allowed to analyze 52 articles of indexed journals in Scopus, Web of Science, SciELO, Redalyc and Latindex Catalog 2.0 in order to know the trend, challenges, weaknesses and strengths of Latin American education in terms of research and learning by 2030; applying the technique of content analysis to extract the most relevant ideas raised by the researchers and thus, to build a theoretical body as a contribution to the generation of knowledge in updating the state-of-the-art, contributing to generating subsequent research from an experimental or qualitative perspective.

3. Results and discussion

Four areas of analysis are presented which respond to the main objective, these areas are: Education and sustainable development goals; research-centered planning; professor and researcher; toward an educational epistemological approach 2030.

3.1. Education and sustainable development goals

Education, seen as a cross-sectional factor, plays a primary role in the effectiveness of achieving sustainable development objectives; for this reason, it cannot be perceived as an isolated or dichotomous entity. It is necessary to transcend toward an inclusive model where educational actors have the opportunity to create holistic and interrelated knowledge of the global world and the multiple needs to overcome in order to achieve a society of peace based on productive progress. In this regard, Murillo and Duk (2017) highlight the time constraints to comply with the SDGs, requiring urgent structuring of strategic plans in educational and research entities to optimize resources for research-centered education to learn throughout life. On the other hand, Cosme-Casulo (2018), state that the university is as a vital institution for this purpose, due to its role as trainer of professors and researchers, deepening the link with the communities by exchanging knowledge for the mutual transformation.

Both authors agree on the need for an education based on paradigm changes from university formation and research, involving research centers as a management factor for the projection of relevant research for 2030, including public and private organizations in a joint effort to contribute to significant results to the achievement of poverty eradication, and the authors agree on a direct correlation between sustainable development goals 4 and 16.

Since education does not have adequate funding, there is a conflict over the social role it plays, and it is imperative to ask whether it is a common good or a factor for economic development, or an indicator for social growth, and what is education and the role it plays in 2030.

Locatelli (2018), helps to discover the answers by raising the need to "develop more sustainable systems" (p. 194). In a society where school dropout is a threat to the most vulnerable social classes, it is necessary to generate a sustainable school structure, which implies flexibility in curricula for the integration and labor insertion of students, enabling them to complement each other economically and academically. In this sense, Agosto et al. (2018), indicate the need for youth-care policies, cooperating in their integral growth by generating a vision of the future based on life projects, for which education should not be based on the mere model of inclusion, but rather should be complemented with a complex epistemology of approach to social reality as the backbone to shape a reflective rationing of acting for the good of society.

The educational system must move at the pace of society, the social dynamics are changing and expectations arise every day, especially in the young population about what will be their socio-economic future in a world where technology opens up gaps between those who have or do not have access to it. It is unthinkable that the school and university of the near future must be the same as what we now know and manage. Hence, what should education look like for 2030? it must necessarily be integrative of all the factors that make up society, forming strategic plans for integral growth in which one proposes his/her goals and how to achieve them, since education is the core axis. Vera-del Carpio (2015), expands by saying that the union of the public with the private is necessary to carry out concrete actions from education to the achievement of a sustainable society, based on the preventive training of health, ecology and environment, which are necessary edges to have a healthy society in all its fields, optimizing resources to be invested in education-research, in addition to promoting a culture of respect for the coexistence between the human being and biotic-abiotic factors.

Azorín-Abellán (2017), indicates the global challenge of promoting effective and inclusive education for all, where the multilateral agencies are required to articulate inclusion, quality, effectiveness and equity as indicators for mainstreaming education in order to contribute to the achievement of sustainable development goals. It implies rediscovering the social role of education as a key factor for generating the synergy of the various social actors in order to consolidate an action that allows the effective achievement of the four indicators mentioned as a main element for a society based in educational otherness.

3.2. Research-focused planning

A cross-sectional and integrating education that allow to link actions to work in favor of achieving 17 development sustainable goals as concrete action for the social transformation of people in favor of eradicating poverty must be underpinned by the permanent improvement of the styles of how learning is promoted in educational settings and there must be research as a fundamental axis for this purpose. Thus, the curriculum must be conceived from a research intention where educational actors work cooperatively to achieve proposed goals, so teachers must plan from a research-action-focused vision an alternative axis to overcome the dichotomic model of education and research, that is proper to the disciplinary approach (Pérez-Van Leenden, 2019).

Research-centered planning, as a pedagogical model, requires considering the contribution and potential of all the actors involved in the learning process. This implies involving the educational community in its social context, thus each can provide significant contributions in the construction of the curricula where they learn to think, build, solve social problems and innovate; working on the project approach, as well as others where the student takes a leading role in articulating actions that favor knowledge for life, considering it as a criterion of educational quality. It is necessary to have strategic programs aimed at guiding education by 2030, and as mentioned by Meléndez-Rojas (2017), this is an

obstacle to the achievement of inclusive education, by thinking on a creative and innovative long-term education to be efficient in technology and in harmony with the environment.

One of the contributions of research-centered planning is that it focuses education in the student and not in the teacher, and various pedagogical approaches can be included based on the cosmovision of dynamic, flexible and reflective learning, supported in information and communication technologies and contextualized to the multiple social needs (Peche-Cruz & Giraldo-Supo, 2019). In view of this pedagogical position, Molina-Naranjo et al. (2018), emphasize the need to train future teachers from a cross-sectional curriculum in the areas of "epistemology, axiology, research, training, competences for the integration of ICT and general professional competences" (p. 162), which must converge in the student-centered approach, progressively leading to a change in the praxis of the educational professional, enabling understanding to assume new pedagogical positions where the status quo transcends, favoring this action with the continuous training-evaluation as part of the educational process (Huapaya-Capcha, 2019).

Because of the latter, it is illogic to think that with the mere change in the literature and without having the necessary awareness and training of the educational actors, they will assume the proposed paradigmatic changes. Hence it is an intrinsic challenge to achieve research-centered planning as a cross-cutting strategy for education by 2030. Another challenge is to base research as an attractive process for students, without this implying the loss of the scientific character of the research, to which Loli-Ponce (2015), indicates that students do not have the necessary time to do research, while they are aware of the importance of learning and obtaining knowledge, as the fragmented disciplinary academic program, in perceiving research as a final product of the student, is not contextualized along the program as an integrated entity to formation.

This indicates that the research-centered planning approach must be taken from a curriculum reconstruction, since a traditional and emerging vision could not be worked on at the same time in education; an educational transposition is needed to form a quality education in the practice and not in mere rhetoric from social actors. In this regard, Calvo (2013), says that teacher training must be planned taking into account the participation of the various social factors, which implies a mandatory relation between education and the various public and private institutions, and a program in favor of inclusive education.

According to Carrillo-Flores (2016), for social actors to participate in an effective way it requires to reveal what is hidden in education, i.e., ideologies that have been implicit as a way of uncovering work toward the transcendence of inclusion as a utopian entity, since educational principles and intentions are not politically neutral. It is necessary to point out that when inclusive education is raised in the present document, it is done with the possibility that all social actors have access to education — distancing themselves from the term inclusive as something exclusive to people with disabilities— because there are social disabilities that often exclude, as mentioned by Cornejo-Espejo (2019), inclusion as an ethical recognition of human realization, underlining the importance of deconstruction of paradigms that promote exclusion. It is necessary to retake the fundamental essence of education as a right to which all people must have access to.

Research-centered planning, when assumed to be a complex and inclusive fact where educational actors have the possibility of being protagonists and not spectators, predicts a paradigm shift where science becomes accessible without losing its rigor. Learning contributes to the formation of critical-reflective citizens, taking into account the term mentioned by Aya-Velandia (2018) when referring to "bio-resistance", which "is a way to take on scientific knowledge and apply it in everyday life" (p. 205). The role of the person as an

integral being is to rediscover where the various exogenous factors influence the cognitive subject to the service of society.

A cognitive subject implies a relationship with other cognitive subjects, being necessary to transcend the paradigm based on the cognitive subject and a cognitive object that has been permeating educational research traditionally, idea supported by Cano et al. (2018). These authors question "the dominant epistemological paradigm, encouraging new forms of research in psychology" (p. 213); they mention from the piscology, the adjunctive science of the pedagogical processes and which is a multi-interdisciplinary vision toward which the education is oriented to 2030, that the research must be present from the complex.

Research should not be perceived as a mere procedural act, but there must be an epistemological awareness on the part of the researcher or researchers in which it is essential to approach knowledge from philosophy as a cross-cutting axis in education. This helps to understand the various research and curricular approaches, generating better understanding of education. It is necessary to promote epistemological competition as a transversal edge to imagine the educational-research reality from a complex perspective of society, involving the methodological inclusion of new positions for the conduction of research (Aldana-Zavala, 2019).

This competence is extracted from the educational researcher from the initial context to the university, and it contributes to foster a coherent and logical epistemic-methodological approach to the investigative action in learning environments. Also, Borrero (2019) complements by indicating that teachers have the availability to know new ways of doing research, but they present weaknesses for the conduction of research from the various methods, for which they require permanent training, as well as the support of educational management. Furthermore, it is necessary that educational institutions have plans of educational opera-

tionality related with those of local and national socio-political development.

Such training should include the postgraduate studies where teachers and researchers plan to improve their professionalization, since it is a perfect area to approach new ways of training and research. Proestakis-Maturana and Terrazas-Núñez (2017) emphasize the commitment to open spaces for reflection and discussion among researchers, students and teachers to break the disciplinary structure; they highlight the need from doctoral studies to transcend in the construction of research with emerging perspectives; involve the vision of the person who directs the program, as well as of the advisors, who are part of an epistemic reconstruction of the curriculum. In addition, Díaz-Bazo (2017), comments on the importance of action research in the implementation of some thematic areas compared to others, what makes it clear that we are moving in a multi-polar epistemological and methodical society, where integration and complementarity are necessary in order to achieve agreements on improving education, perhaps transdisciplinary or complex is an option; the important thing to emphasize is the role of the teacher as a researcher.

3.3. Researcher and professor

The researcher-professor leaves aside continuing education in order to accumulate knowledge, transmit it, and transcend the construction of information. This implies a 180° turn, because the constant investigative inquiry gives the professor the capacity to learn by doing and allowing to reflect on the daily basis, to motivate himself/herself to be a better person and, therefore, a researcher. Muñoz-Martínez and Garay-Garay (2015) say that "educational research is continuous training" (p. 398), therefore, in a dynamic world a researcher-professor is needed in order to adopt solutions to the many social challenges he/she face; this implies modeling in students the role of research as an element of learning for life.

The above invites to analyze on the importance of learning and how to learn, because there is a tendency to remove from the academic program everything that is not perceived as useful for the economic and technological growth of society, this is where a discriminatory flow of human thought arises, indirectly contributing to the emergence of mass societies. Escámez-Sánchez et al. (2017) refer to the urgency of educating for the formation of a sustainable society—in that sense—economic is vital for human and educational growth, but it should not be seen as the end, but as a means.

It is important to combine the formation of human, social and professional values in order to educate with awareness about the human coexistence with other species of the planet. Rodríguez-Fiallos et al. (2019), propose research as a means of self-realization and autonomy of the person, and the need for the researcher-professor to have a training that allows him/her to recognize the value of the person when applying flexible and dynamic pedagogical strategies according to the social context. Rivas-Tovar (2011) proposes nine competences for investigative scientific production as a cross-cutting axis of education.

Moving toward a complex vision of investigative action is a day-to-day task faced by educational researchers, involving and deconstructing to build new research phases. Fernández-Hernández and Cárdenas-Berrio (2015), point out that the "little dialectical vision of some students in the research process, the lack of methods and tools beyond those associated with quantitative research" (p. 45), indicates the need to have researcher-professor who question the research reality, and rediscover the investigative action in an emerging dialectic as a means for integral growth, promoting this ability in the students to create research teams for the permanent construction of knowledge. Buendía-Arias et al. (2018) consider it relevant to overcome the dichotomy between research and pedagogical practice, which will contribute to an educa-tion for the reflection, inquiry and autonomous growth of people.

The researcher-professor is in the educational age of teaching to investigate, which is a process that allows to incorporate sub-processes such as reading, inquiry, analysis, reflection, discrimination of information and the application of techniques for the processing of information, argumentation and use of technology, among others, that contribute to training significantly for lifelong learning. On the other hand, García et al. (2018), states that research competences in students improve, as well as their intellectual capacity, and their speaking and writing scientific production with a good researcher-professor. Since the global society faces problems for the reading and critical awareness of the social reality, the educational curriculum must take on this challenge as part of its daily pedagogic life.

The importance that educational institutions must provide to research is emphasized, especially the fundamental role of the researcher-professor, since the contrary implies an underestimation of research that reduces the educational quality and learning, as mentioned by Pérez (2017). García-Gutiérrez and Aznar-Díaz (2019) also confirm the vision of deepening on reading, writing and investigative competences as the formative essence of the future teacher, thus reflecting on the role that the university plays in the formation of future educators who must be in line with exercising professionally to provide answers to the multiple social realities; for this they must be trained in investigative competences to act assertively.

This implies that universities in Latin America must rediscover research as a tool to increase educational quality; Murillo and Martínez-Garrido (2019) agree that research tends to be managed from the polarization of the quantitative-qualitative. Latin America still needs to deepen on research from new methodological approaches, hence the idea is to systematize pedagogical and research experiences with the aim of devising new research styles relevant to the

formation of a quality education. The research activity can take into account classical methods of the qualitative but are little addressed as a starting point, provided that they are relevant to the pedagogical action of the researcher-professor. Huchim-Aguilar and Reyes-Chávez (2013), say that biographical-narrative research can contribute to the described above, requiring training in communicative competences to be effective in carrying out this type of research.

Another approach that should be reviewed that is relevant to the 2030 challenges is educational leadership. Villa-Sánchez (2019) explains the importance of educational leadership as a promoter of significant changes in the educational institution, as well as in the models of how pedagogically work is done, because a transformative leader learns new methodological trends in favor of promoting pedagogical changes. The commitment of educational management to the actions of institutional policies motivates the teaching leadership to form a cooperative, dynamic and flexible work, by constructing a relevant learning from the role of the researcher-professor as transformative leader, situation raised by Morgado et al. (2019), when conceiving the role of the director from a transformational vision as necessary to achieve changes in the institution.

Working from the conception of leadership based on emotional intelligence contributes to permeating the achievement of goals in the educational institution. Maya et al. (2019), argue that a human-centered professional practice brings synergy to cooperative work. Izquierdo-Rus et al. (2019), emphasize that students tend to have two problems in cooperative work: the first one is that they do not like the work, and the second with whom they will do it. Educational research is a cooperative work from the subject-subject epistemological perspective, and it invites the teacher to reflect on his/her leadership in pedagogical action, which must be motivating and conciliatory in an effort to balance students' emotions in favor of research to learn through-

out life. García-Garnica and Martínez-Garrido (2019), support the need for assertive school leadership to achieve institutional objectives as a pre-factor in establishing effective cooperative learning.

The research seen from this point of view should be based on new ways of experiencing the class on the part of students, where they have the possibility of having a better role and where research processes are involved. This vision includes the teacher who must manage new didactic styles to contribute in the transcendence of the traditional model to approaches that are in accordance with an education by 2030, emphasizing the permanent and integral formation of the teacher to assertively take on such challenges. Del Arco-Bravo et al. (2019), consider the intensification of the student-centered approach, as it allows to encourage motivation, especially among older people.

3.4. Toward an educational epistemological approach - 2030

As discussed in previous lines, it is necessary to promote epistemological competence in educational researchers in order to question reality from a philosophical perspective by 2030. Latin American education is faced with the challenge of transcending Cartesian rationality in assuming an epistemic stance that allows it to identify itself from a relevant and contextualized work to its social reality. But what is epistemology? It could be indicated that it has to postulates: One from the complex Eurocentric vision that emerged from knowledge promoted from quantum physics versus that of classical physics; a second, related to a look from the decolonial, but it is perhaps possible to continue in a dichotomous struggle or it is feasible to merge to build an inclusive vision from scientific knowledge.

Collado-Ruano (2017a), highlights the symbol of a society under construction that is adhered from different epistemic angles. Being Latin America an intercultural fusion that is

combined with epistemological aspects, it is possible to experience pedagogical methods to strengthen a scientific identity, favoring an ecosystem of knowledge among the cultures that inhabit a territory.

It is an eternal construction toward the interculture which will allow to combine an epistemological action where educational research is valued as a center to form knowledge that is conducive to an inclusive education by 2030. The struggle of powers between individuals and collectives, institutionalized in educational institutions that cling to knowledge-power as that is superior to other epistemic and methodical options is a cultural challenge to transcend in order to achieve the balance of the sustainability of knowledge. In addition, Collado-Ruano (2017b) proposes that "meeting the challenges of the SDGs requires creating a knowledge ecology that reintegrates different human knowledge and dimensions" (p. 246).

The ecology of knowledge allows to integrate ancestral knowledge, scientific, daily or popular wisdom, in order to merge into a balance of knowledge relevant to providing the rupture of polarized perspectives of planned education according to the dominant ideologies of political power. It is necessary to confront the reality from the contribution of the various social actors in the construction of educational policies because of collective coexistence phenomenon (Collado-Ruano et al., 2018), becoming pedagogical-investigative competences in alliance with the ancestral sciences and scientific sciences.

Good living can be a sustainable option of human balance since it seeks to live together in a middle position between wealth and poverty, where ethical values can be cultivated as an expression of interrelationship between the living and non-living beings of the planet (Collado-Ruano, 2016), being necessary to review the economic model and its relationship with the biophysical laws of nature.

Fernández-Galindez (2019) and Alfaro-Mardones et al. (2015), also mention the impor-

tance of ensuring transformation and self-reflection as a means of emotional-spiritual healing, and as a point of reference for achieving changes in education and society; this implies that if they are not formed to assume integrality as pedagogical expression, and epistemological conceptions of different approach to traditional education, they can be limited in their effectiveness, jeopardizing the option of achieving sustainability as an exercise for the good living of the society. Acosta (2016) emphasizes the transdisciplinary construction of the university to form from the coexistence the scientific and the dimensions that encompass the human being. It is a vision to combine an ecology of knowledge and coexistence in the construction of a sustainability in the daily work of the educational actors, where the formation is conceived in constructing citizenship as a space of coexistence, based on self-respect between sociology and nature, as mentioned by Aldana-Zavala and Colina-Ysea (2019).

From the integrality of knowledge, it will be possible to contribute effectively to the achievement of a quality and inclusive education, where the various epistemological viewpoints can converge to build a better society. Henao-Villa et al. (2017), support by noting the importance of project-based learning to students, although it is distanced from the semester curriculum, which evidences that although efforts are made by professors to transcend the mechanistic without the proper academic support, it will be an effort that will not lead to massive changes in the student population, being one of the challenges for 2030 the curricular transformation toward a student-centered approach that is supported from pedagogical training in universities. López-Salazar (2019), collaborate by indicating the need to structure public policies that are created from the communities, diagnosing their needs. It is a similar situation to that of education, where the scenario arises from an episteme where educational actors are involved in order to build curricula contextualized to their needs and interests

without losing sight of the global, as a scenario of collective coexistence.

Moving to 2030 is an invitation to set up new ways of doing education. Maldonado (2019), warns the metamorphosis of the social sciences, which is product of three reasons: "First reason: The world changed (p. 115). Second reason: New ways of seeing and explaining, therefore, new methods and new techniques appear (p. 117). Third reason: The ecosystem of science and knowledge changed" (p. 118). Ignoring what has been raised can lead to a multiple chance of doing science in favor of promoting appropriate action in the next decade; technological advances continue every day and there is no certainty of the world in 2030. The truth is that it will be different from today, and this difference will be marked in how the educational and scientific protagonist is assumed. It may be a humanist epistemological worldview and integrative of knowledge, leaving aside the dichotomy that proposes the supremacy of knowledge-power as a static nucleus of praxiological conformism of educational actors.

4. Conclusions

The bibliometric review conducted looks at a horizon for 2030, based on a different education than the traditional one, where the need to generate synergies of epistemologies, methods, techniques is emphasized in order to articulate an integral educational management, where differences are constituted in strengths through the intercultural interrelation of people and knowledge in a framework of mutual respect and acceptance of the various ideological postures to merge into an integrative curriculum in which work is carried out in areas contextualized to the social relevance.

Building an inclusive curriculum requires the contribution of all social actors in order to build on what must be learned (1), what wants to be learned (2) and what is needed to learn (3). Three differentiating distinctions: 1. What must be learned works as the elementary thing that everyone must learn. 2. What wants to be learned is to give students the opportunity to be heard to participate in the construction of knowledge, promoting a democratic society based on equity, respect, self-determination of the person, as primary factors in shaping an ethical, participatory, critical and reflective citizen in the various socio-economic processes faced day by day. 3. What is needed to learn is what society demands, the globalized world for its sustainable progress, so a student in rural areas will be able to take action based on learning to work with the resources available in his/her context.

Thus, the educational curriculum will seek to work on the conjunction of scientific knowledge, ancestral knowledge and technological practices as a necessary set to promote the good living of the citizenry, avoiding exclusion in all its human and social extension. In this way, the curriculum projects a citizen with a sustainable global vision, so it is necessary that educational institutions rediscover themselves for this purpose, because the way of managing education must be based on the foundation of a multi, inter, transdisciplinary, complex, systemic and holistic epistemology, and for this purpose it is necessary to train active teachers at all levels of the educational system as well as future teaching professionals, so universities are called to contribute today in the change of tomorrow.

What is raised cannot be achieved if there is no right participation of the political, business, social, cultural and sporting actors of the nation, because the contribution of all is needed to build educational policies where everyone perceives their contribution, generating identity with an educational curriculum for 2030, coupled with the economic investment necessary for education and its sustainability as a quality service to society. Free education must be promoted, but not the regalia of education, i.e., social actors must understand the great value of education, moving away from populist postures that perceive education as a set of votes, to seeing the community as a group of critical and reflective citizenship.

If Latin America wants to grow, progress, and stop being the continent of hope to be the global protagonist, it must combine a truly critical, productive and sustainable education that implies amplifying the perspective of entrepreneurship in the curriculum, repealing the position of the employee. It is not significant to attend school with the conviction of being a subordinator, but instead of producing and innovating to transform society. It is there that the vision for research could turn to styles where sustainable invention is promoted for the productivity of the locality. It is necessary to promote ethics as a cross-cutting factor to contribute to the constitution of ethical, humanistic and cooperative citizens, in the construction of alliances for the ecological support of the social ecosystem.

References

Acosta, J. (2016). Interdisciplinariedad y transdisciplinariedad: perspectivas para la concepción de la universidad por venir. [Interdisciplinarity and transdisciplinarity: perspectives for the conception of the university to come]. *Alteridad, 11*(2), 148-156. https://doi.org/10.17163/alt.v11n2.2016.01

Agosto, G., Fontela, M., Brandy, L., & Langsam, M. (2018). La Agenda 2030 como herramienta de desarrollo para los jóvenes en Argentina. [The 2030 Agenda as a development tool for young people in Argentina]. *Ciência & Saúde Coletiva*, *23*(9), 2797-2802. https://dx.doi.org/10.1590/1413-81232018239.13472018

Aldana-Zavala, J.J. (2019). La competencia epistemológica en el investigador social universitario venezolano. [Epistemological competence in the Venezuelan university social researcher]. *Praxis*, *15*(1), 103-115. https://bit.ly/390Omwc

Aldana-Zavala, J., & Colina-Ysea, F. (2019). Marketing verde en la conformación de una ciudadanía planetaria en el ámbito educativo latinoamericano. [Green marketing in the formation of a planetary citizenship in the Latin American educational field] *Revista San Gregorio, 0*(31), 150-161. https://bit.ly/392bmLo

Alfaro-Mardones, J., Fernández-Hernández, C., & González-García, M. (2015). La transdisciplinariedad una herramienta para apuntar al Buen Vivir. [Transdisciplinarity a tool to target Good Living]. *Polis (Santiago)*, *14*(40), 23-42. https://dx.doi.org/10.4067/S0718-65682015000100002

Aya-Velandia, L. (2018). Cerebro-complejidad y bioresistencia. [Brain-Complexity and Bioresistance]. *Revista de Investigación Psicológica*, (19), 195-206. https://n9.cl/dd073

Azorín-Abellán, C. (2017). Una mirada desde los organismos internacionales a la educación para todos. [A look from international organizations to education for all]. *Opción, 33*(83), 203-228. https://bit.ly/3b6T90u

Borrero, R. (2019). Formación investigativa de los docentes en las instituciones públicas de Educación Secundaria: Un abordaje desde la gerencia. [Investigative Training of teachers in Public Secondary Education Institutions: An Approach from Management]. *Revista Arbitrada Interdisciplinaria Koinonía, 4*(8), 544-570. http://dx.doi.org/10.35381/r.k.v4i8.298

Buendía-Arias, X.P., Zambrano-Castillo, L.C., & Insuasty, E.A. (2018). El desarrollo de competencias investigativas de los docentes en formación en el contexto de la práctica pedagógica. [The development of investigative skills of teachers in training in the context of pedagogical practice]. *Folios*, (47), 179-195. https://doi.org/10.17227/folios.47-7405

Calvo, G. (2013). La formación de docentes para la inclusión educativa. [Teacher training for educational inclusion]. *Páginas de Educación*, *6*(1), 19-35. https://bit.ly/2x6fxIG

Carrillo-Flores, I. (2016). Balance de los Objetivos de Desarrollo del Milenio y su impacto en el derecho a la educación. [Taking stock of the Millennium Development Goals and their impact on the right to education]. *Educación*, *25*(49), 103-119. https://dx.doi.org/10.18800/educacion.201602.006

Collado-Ruano, J. (2016). La huella socioecológica de la globalización. [The socio-ecological footprint of globalization]. *Sociedad y Ambiente*, (11), 92-121. https://n9.cl/gtyz3

Collado-Ruano, J. (2017a). Interculturalidad y descolonialidad: Retos y desafíos epistemológicos. [Interculturality and decoloniality: Epistemological challenges and challenges]. *Revista nuestrAmérica, 5*(9), 38-57. https://bit.ly/2Ui3lMT

Collado-Ruano, J. (2017b). Educación y desarrollo sostenible: la creatividad de la naturaleza para innovar en la formación humana. [Education and sustainable development: the creativity of nature to innovate in human formation]. *Educación y Educadores, 20*(2), 229-248. https://bit.ly/2xNbPUW

Collado-Ruano, J., Madroñero-Morillo, M., & Álvarez-González, F. (2018). Educación transdisciplinar: formando en competencias para el buen vivir. [Transdisciplinary education: training in skills for good living]. *Ensaio: Avaliação e Políticas Públicas em Educação, 26*(100), 619-644. https://dx.doi.org/10.1590/s0104-40362018002601487

Cornejo-Espejo, J. (2019). Nuevos excluidos en el sistema educacional chileno: problemas y desafíos. [New excluded in the Chilean educational system: problems and challenges] *Páginas de Educación, 12*(1), 28-48. https://dx.doi.org/10.22235/pe.v12i1.1766

Cosme-Casulo, J. (2018). Los Objetivos de Desarrollo Sostenible y la academia. [The Sustainable Development Goals and the academy]. *MEDISAN, 22*(8), 838-848. https://n9.cl/0ovgo

Cúnico, S., Pizzinato, A., Strey, M., & Manso, A. (2018). Desafíos y posibilidades de la investigación cualitativa en Psicología: problematizaciones necesarias. Challenges and possibilities of qualitative research in Psychology: necessary problematizations]. *Psicología, Conocimiento y Sociedad, 8*(1), 194-217. https://dx.doi.org/10.26864/pcs.v8.n1.9

Del Arco-Bravo, I., Flores-Alarcia, O, & Silva, P. (2019). El desarrollo del modelo flipped classroom en la universidad: impacto de su implementación desde la voz del estudiantado. [The development of the flipped classroom model in the university: impact of its implementation from the voice of the student body]. *Revista de Investigación Educativa, 37*(2), 451-469. http://dx.doi.org/10.6018/rie.37.2.327831

Díaz-Bazo, C. del P. (2017). La investigación-acción en la educación básica en Iberoamérica. Una revisión de la literatura. [Action research in basic education in Latin America. A review of the literature]. *Magis, Revista Internacional de Investigación en Educación, 10*(20), 159-182. https://doi.org/10.11144/Javeriana.m10-20.iaeb

Escámez-Sánchez, J., Peris-Cancio, J., & Escámez-Marsilla, J. (2017). Educación de los estudiantes universitarios y gestión de la sostenibilidad. [University student education and sustainability management]. *Perfiles educativos, 39*(156), 174-190. https://n9.cl/o6y4

Fernández-Galindez, O. (2019). La transcomplejidad, una visión epistemológica del siglo XXI. [Transcomplexity, an epistemological vision of the 21st century]. *Revista Conocimiento Libre y Licenciamiento CLIC, 19*(10), 101-116. https://bit.ly/2UcFjTL

Fernández-Hernández, S., & Cárdenas-Berrio, M. (2015). Formación de competencias investigativas en Ciencias de la Información desde la Universidad de La Habana. [Training of investigative skills in Information Sciences from the University of Havana]. *Revista Cubana de Información en Ciencias de la Salud, 26*(1), 34-47. https://bit.ly/2WlwSIr

García, N., Paca, N., Arista, S., Valdez, B., & Gómez, I. (2018). Investigación formativa en el desarrollo de habilidades comunicativas e investigativas. [Formative research in the development of communication and research skills]. *Revista de Investigaciones Altoandinas, 20*(1), 125-136. https://dx.doi.org/10.18271/ria.2018.336

García-Garnica, M., & Martínez-Garrido, C. (2019). Dirección escolar y liderazgo en el ámbito iberoamericano. [School Management and Leadership in the Ibero-American Area]. *Profesorado, Revista de Currículum y Formación del Profesorado, 23*(2), 1-11. https://dx.doi.org/10.30827/profesorado.v23i2.9690

García-Gutiérrez, Z., & Aznar-Díaz, I. (2019). The Development of Research Competencies, an Alternative to Train Childhood Educators as Teacher-Researchers. [El desarrollo de competencias de investigación, una alternativa para capacitar a educadores de la infan-

cia como docentes-investigadores] *Revista Electrónica Educare*, *23*(1), 1-22. https://doi.org/10.15359/ree.23-1.15

Henao-Villa, C., García-Arango, D., Aguirre-Mesa, E., González-García, A., Bracho-Aconcha, R., Solórzano-Movilla, J., & Arboleda-López, A. (2017). Multidisciplinariedad, interdisciplinariedad y transdisciplinariedad en la formación para la investigación en ingeniería. [Multidisciplinarity, interdisciplinarity and transdisciplinarity in training for engineering research]. *Revista Lasallista de Investigación*, *14*(1), 179-197. https://dx.doi.org/10.22507/rli.v14n1a16

Huapaya-Capcha, Y. (2019). Gestión por procesos hacia la calidad educativa en el Perú. [Process management towards educational quality in Peru]. *Revista Arbitrada Interdisciplinaria Koinonía, 4*(8), 243-261. http://dx.doi.org/10.35381/r.k.v4i8.277

Huchim-Aguilar, D., & Reyes-Chávez, R. (2013). La investigación biográfico-narrativa, una alternativa para el estudio de los docentes. [Biographical-narrative research, an alternative for the study of teachers]. *Revista Actualidades Investigativas en Educación, 13*(3), 1-27. https://doi.org/10.15517/aie.v13i3.12026

Izquierdo-Rus, T., Asensio-Martínez, E., Escarbajal-Frutos, A., & Rodríguez-Moreno, J. (2019). El aprendizaje cooperativo en la formación de maestros de Educación Primaria. [Cooperative learning in the training of primary education teachers]. *Revista de Investigación Educativa*, *37*(2), 543-559. http://dx.doi.org/10.6018/rie.37.2.369731

Locatelli, R. (2018). La educación como bien público y común. Reformular la gobernanza de la educación en un contexto cambiante. [Education as a public and common good. Reformulating the governance of education in a changing context]. *Perfiles educativos*, *40*(162), 178-196. https://bit.ly/3ab5qAY

Loli-Ponce, R., Sandoval-Vegas, M., Ramírez-Miranda, E., Quiroz-Vásquez, M., Navarro-Casquero, R., & Rivas-Díaz, L. (2015). La enseñanza aprendizaje de la investigación: representación social desde la perspectiva estudiantil. [Teaching learning research: social represen-

tation from the student perspective]. *Anales de la Facultad de Medicina*, 76(1), 47-56. https://n9.cl/x1dzh

López-Salazar, R. (2019). Bienestar y desarrollo: evolución de dos conceptos asociados al bien vivir. [Well-being and development: evolution of two concepts associated with living well]. *Revista Telos, URBE, Ciencias Sociales, 21*(2), 288-312. https://doi.org/10.36390/telos212.03

Maldonado, C. (2019). Tres razones de la metamorfosis de las ciencias sociales en el siglo XXI. [Three reasons for the metamorphosis of the social sciences in the 21st century]. *Cinta de Moebio. Revista de Epistemología de Ciencias Sociales,* (64), 114-122. https://bit.ly/33r3vpu

Maya, E., Aldana-Zavala, J., & Isea-Argüelles, J. (2019). Liderazgo directivo y educación de calidad. [Management Leadership and Quality Education]. *CIENCIAMATRIA, 5*(9), 114-129. https://doi.org/10.35381/cm.v5i9.102

Meléndez-Rojas, R. (2017). Prospectiva para la educación costarricense. Una oportunidad de transformar el sistema educativo para el siglo XXI. [Prospective for Costa Rican education. An opportunity to transform the educational system for the 21st century]. *Actualidades Investigativas en Educación*, *17*(3), 720-744. https://dx.doi.org/10.15517/aie.v17i3.29072

Molina-Naranjo, J., Lavandero-García, J., & Hernández-Rabell, L. (2018). El modelo educativo como fundamento del accionar universitario.: Experiencia de la Universidad Técnica de Manabí, Ecuador. [The educational model as the foundation of university action: Experience of the Technical University of Manabí, Ecuador]. *Revista Cubana de Educación Superior*, *37*(2), 151-164. https://n9.cl/bvikz

Morgado, C., Aldana-Zavala, J., & Isea-Argüelles, J. (2019). Gerencia transformacional desde el accionar docente directivo para el abordaje del contexto escolar. [Transformational management from the directive teaching action to approach the School Context]. *CIENCIAMATRIA, 5*(9), 48-72. https://doi.org/10.35381/cm.v5i9.99

Muñoz-Martínez, M., & Garay-Garay, F. (2015). La investigación como forma de desarrollo profe-

sional docente: Retos y perspectivas. [Research as a form of teacher professional development: Challenges and perspectives]. *Estudios pedagógicos (Valdivia)*, *41*(2), 389-399. https://dx.doi.org/10.4067/S0718-07052015000200023

Murillo, F., & Duk, C. (2017). El ODS 4 (y el 16) como meta para los próximos años. [SDG 4 (and 16) as a goal for the coming years]. *Revista Latinoamericana de Educación Inclusiva*, *11*(2), 11-13. https://dx.doi.org/10.4067/S0718-73782017000200001

Murillo, F., & Martínez-Garrido, C. (2019). Una mirada a la investigación educativa en América Latina a partir de sus artículos. [A Look at Educational Research in Latin America from its Articles]. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 17*(2). http://dx.doi.org/10.15366/reice2019.17.2.001

Peche-Cruz, H., & Giraldo-Supo, V. (2019). El Aprendizaje Flip Learning centrado en el estudiante como generador de calidad educativa. [Student-centered Flip Learning as a generator of educational quality]. *Revista Arbitrada Interdisciplinaria Koinonía, 4*(8), 427-450. http://dx.doi.org/10.35381/r.k.v4i8.293

Pérez, L. (2017). Desarrollo de capacidades investigativas en estudiantes de pregrado de la carrera de arquitectura de la Facultad de Arquitectura y Urbanismo de la Universidad Técnica de Oruro: Resultados del estudio de campo. [Development of investigative capacities in undergraduate students of the architecture degree of the Faculty of Architecture and Urbanism of the Technical University of Oruro: Results of the field study]. *Revista Ciencia, Tecnología e Innovación, 14*(15), 861-868. https://n9.cl/3zb6

Pérez-Van Leenden, M. (2019). La investigación acción en la práctica docente. Un análisis bibliométrico (2003-2017). [Action research in teaching practice. A bibliometric analysis (2003-2017)]. *magis, Revista Internacional de Investigación en Educación*, *12*(24), 177-192. https://doi.org/10.11144/Javeriana.m10-20.ncev

Proestakis-Maturana, A., & Terrazas-Núñez, W. (2017). Formación en investigación y supervisión en programas de doctorados. [Research training and supervision in doctoral programs]. *Magis, Revista Internacional de Investigación en Educación*, *10*(20), 85-104. https://doi.org/10.11144/Javeriana.m10-20.fisp

Rivas-Tovar, L. (2011). Las nueve competencias de un investigador. [The nine skills of an investigator]. *Investigación Administrativa, 108*(2), 34-54. https://bit.ly/3diaXYK

Rodríguez-Fiallos, J., Navarrete-Pita, Y., Estrada-Molina, O., & Vera-Viteri, L. (2019). Valoraciones acerca de la relación entre competencias profesionales y las investigativas. [Assessments about the relationship between professional and investigative skills]. *Revista Cubana de Educación Superior*, *38*(1), 5-11. https://n9.cl/6l2jg

UNESCO (2005). Hacia las sociedades del conocimiento. https://bit.ly/39Ydll7

Vera-Del Carpio, R. (2015). Gestión prospectiva sobre las dimensiones de desarrollo sostenible hacia el 2030 en los líderes de la Región de Puno-Perú. [Prospective management on the dimensions of sustainable development towards 2030 in the leaders of the Puno Region-Peru] *Comuni@cción*, *6*(1), 05-15. https://n9.cl/w718

Villa-Sánchez, A. (2019). Liderazgo: una clave para la innovación y el cambio educativo. [Leadership: a key to innovation and educational change]. *Revista de Investigación Educativa*, *37*(2), 301-326. http://dx.doi.org/10.6018/rie.37.2.365461

Family-classroom intervention for the development of graphomotor skills

Intervención familia-aula para el desarrollo de habilidades grafomotrices

Dra. Yanet Amanda Maquera-Maquera *is a professor and researcher at Universidad Nacional del Altiplano (Perú))* (ymaquera@unap.edu.pe) (https://orcid.org/0000-0002-2492-6428).

Dr. Saúl Bermejo-Paredes *is a professor and researcher at Universidad Nacional del Altiplano (Perú)* (sbermejo@unap.edu.pe) (https://orcid.org/0000-0001-9885-7974).

Erika Olivera-Condori *is a professor docente del Instituto Superior Pedagógico Público de Puno (Perú)* (erika_olco@hotmail.com) (https://orcid.org/0000-0001-9315-6853).

Abstract

The complexity of pedagogical actions for initial education teachers is not reduced to directing and giving guidelines from a pedestal; it is part of the class, it requires a lot of tact and preparation. Every time, the effort is greater to innovate and generate stimulating and productive learning processes, however; at the same time, the expectations of parents and society are very high. Situation that calls for transforming pedagogical practices and responding to the social and learning needs of children. The objectives of the study are: a) to describe the beliefs of educators and parents regarding the initiation of early literacy in children of 05 years of age; and b) establish to what extent the family involvement model through the performance of fine motor activities from home, favors the learning of graphomotor skills. The methodology used corresponds to the mixed approach, descriptive-explanatory in scope. The results show not only the impact of the family involvement model, based on the incorporation and exchange of experiences and knowledge between classroom teachers and parents, in the learning of early literacy; Rather, they highlight that taking into account the beliefs of teachers and parents are decisive to transform and change the trajectory of the everyday and usual in the educational culture.

Keywords: Service-learning, cooperative learning, pedagogical beliefs, teaching of writing, family influence, psychomotor skills.

Resumen

La complejidad de las acciones pedagógicas para el profesorado de educación inicial, no se reduce a dirigir y dar pautas desde un pedestal; es parte de la clase, requiere de mucho tacto y preparación. Cada vez, el esfuerzo es mayor para innovar y generar procesos de aprendizaje estimulantes y productivos; sin embargo, paralelamente las expectativas de los padres y la sociedad son muy altas. Situación que convoca a transformar las prácticas pedagógicas y responder a las necesidades sociales y de aprendizaje de los niños. Los objetivos del estudio son: a) Describir las creencias de los educadores y padres de familia respecto a la iniciación de la alfabetización temprana en niños de cinco años de edad; y b) Establecer en qué medida el modelo de involucramiento familiar a través de la realización de actividades de motricidad fina desde los hogares, favorece el aprendizaje de las habilidades grafomotrices. La metodología empleada corresponde al enfoque mixto, de alcance descriptivo-explicativo. Los resultados evidencian no solo el impacto del modelo de involucramiento familiar; sustentado en la incorporación e intercambio de experiencias y conocimientos entre docentes de aula y padres de familia, en el aprendizaje de la alfabetización temprana; más bien resaltan que tomar en cuenta las creencias de los docentes y padres de familia son decisivas para transformar y cambiar la trayectoria de lo cotidiano y usual en la cultura educativa.

Descriptores: Aprendizaje-servicio, aprendizaje cooperativo, creencias pedagógicas, enseñanza de la escritura, influencia familiar, psicomotricidad.

1. Introduction

Graphomotricity is a communicative-evolutionary process that is responsible for the pre-learning of graphic sign communication (Suárez, 2004); and it applies psychomotor skills in children to prepare them in the learning of the writing, and it is a good element for the internalization of partial images of letters (Alfonso et al., 2012; Lurçat, 1988; Segura et al., 2017). Psychomotricity is applied as a step before writing, and it consists of activities such as scribble, first lines, and free drawing on any surface (Ramón, 2016; Reynoso, 2019; Sugrañes et al., 2007), which are used in preschool education with the purpose of successfully initiating early literacy. The acquisition and mastery of the written language is an essential task in the mature development of every child and it is the most significant challenge for any school system (Gómez-Díaz et al., 2015); additionally, it is one of the most difficult and complex learning since it is inked to the management and learning of other skills; for this reason, it requires some necessary conditions to confront it and avoid fear, failure and frustration (Fornaris, 2011).

Pre-school education is the most critical and most important period for the future development of the individual; the experiences and socialization processes lived will be the basis of the skills for further learning, shaping the identity of the students, the self-esteem and allowing them to know the world around them (Balongo & Mérida, 2017; Pastor, 2018; UNESCO, 2014). This involves having a deep understanding of early childhood care and its purposes; knowing each individual; revealing each child's talent to act and create alternatives to respond to their complex needs and problems. Kindergarten in Peru is seen as the level that creates the foundation for the integral formation of children under six years of age, linked in a pedagogical and curricular way with elementary school (MINEDU, 2017); it devotes much of the teaching time to giving meaning to the development of com-municative competences in all its ways. One of the main objectives of kindergarten is literacy (Lara & Pulido, 2020) and the acquisition and mastery of the written language (Gutiérrez & Díez, 2015), which has become a prerequisite for school promotion.

Pre-school acquisition of written language representation is a valuable ability to improve early literacy in children (Gerde et al., 2019; Hall et al., 2015); nevertheless, it requires the development of global graphomotor skills (Cisternas et al., 2014), associated with the "first lines", in which the child is not drawing the object itself, but is setting on paper the gestures used by him/her to represent that object" (Montealegre, 2006, p. 26). These graphic representations, as a manifestation of fine motor development, are linked to the "ability to use the hand and fingers in accordance with the requirement of the activity and it refers to the skills that are necessary to manipulate an object" (Serrano & Luque, 2019, p. 16). In this way, handwriting is used to link visual processing with the motor experience, facilitating letter recognition skills (James, 2017). Therefore, the practice of hand-made graphomotricity is more useful with respect to other alternatives (Grabowski, 2010); in this sense, Benítez and Sánchez (2018), conclude that "educating the graphic gesture from the motor movement is a powerful alternative in pre-school education because it facilitates the problem solving of learning the tracing and writing" (p. 195).

Kindergarten, unlike other forms and levels of elementary school, does not teach thematic content, nor does it treat children as students in regular school situations. However, the possibilities of efficient writing learning are often limited in preschool settings (Gerde et al., 2019), since there are still routine pedagogical practices that follow a mechanical, pre-set path, not conducive to enriching the performance and configuration of the scaffolding of linguistic expression and communication, which must be based on meta-linguistic knowledge (Arnaíz & Bolarín, 2016), as a capacity to recognize the nature, forms and

functions of written language. Hence, the creation of alternatives to respond to complex needs and problems of preschool children increasingly demand that teachers adapt and innovate in the use of various communication strategies in each interactive episode, varying in a qualitative and quantitative way (Gonzáles, 2015). On the contrary, failure in early literacy of preschool children remains invariably, and when this occurs, the goal of learning writing as a "life tool of every human being is lost and it becomes a learning problem" (Suárez, 2004, p. 6), which limits the learning process of written language and communication in general.

The acquisition of written language by children is seen as a learning that is only relevant to the school system (Ferreiro, 2006); however, in pre-school children are more exposed to interference from their immediate environment and contexts, composed of various factors and with the participation of various educational agents, who must create adequate stimuli in favorable conditions to enhance the development (Gutiérrez et al., 2018). Early literacy learning goes beyond as it is in both formal and informal learning contexts (Parodi, 2010). In this regard, it is proposed to devise children's schools not only intended for children, but focused on families, building complementary relationships based on mutual respect, trust and encounter between family and school (Ferrer & Riera, 2015; Keyser, 2006). Under this model, teachers establish better and more dynamic relationships with the parents to make them cooperate in the realization of specific activities assigned at school, because the parents are the ones who know the characteristics of each child and can greatly influence in the development and well-being of the students, ensuring the quality of pre-school education (Mir et al., 2009; Pastor, 2018).

Thus, the decline of traditional pedagogical practices of early literacy creates the way to more democratic and respectful forms of teaching with the help of educators, the educational community and the family to promote function-

al communicative capacities in all their manifestations as the basis for integral development (Díaz, 2019; Palos et al., 2017; Ramos, 2011). In this perspective, the study aims to: a) describe the beliefs of educators and parents regarding the initiation of early literacy in 5-yearl-old children; and b) establish to what extent the model of family involvement through the realization of fine motor activities favors the learning of skills in five-year-old preschool children.

The idea is to create learning proposals based on authentic-participatory actions and experiences in the school and family environment, to respond to the learning needs of children, meet the expectations of the community, and contribute to the transformation of the school, and the cultural and social contexts. The study is part of the perspective of participatory pedagogy and service learning, considered as a pedagogical proposal, program and strategy (Deeley, 2016; Mendia, 2012; Puig et al., 2007), which combines learning processes and service to the community in an active and participative way, providing a formative scenario that enhances the communication skills, social attitudes and the motivation required for the concretion of the tasks and competences envisaged (Chiva- Bartoll et al., 2018; Gil et al., 2016; Huda et al., 2018).

2. Methodology

2.1. Temporary-spatial location

The study was conducted during the second semester of the 2019 school year, at the Initial Educational Institution (IEI) San Martín de Porres, Puno City. It corresponds to the district, province and department of Puno-Peru.

2.2. Samples

It consists on the section of students and their parents of IEI San Martín, composed by a) 18 children (eight men and ten women); b) 18 parents (15 women and three men); and c) three

teachers, all women (teachers of the three-year-old and four-year-old sections only participated during in-depth interviews). Two criteria were first used for the selection of the sample: The willingness and cooperation of the classroom teacher, allowing one of the research team to take the control of the experimental sessions in the classroom; and, the consent and actual involvement of parents in the pedagogical proposal. It should also be noted that the parents of this section were the best organized and most prominent group in the educational institution.

2.3. Focus and scope

It is a case study with a mixed approach: qualitative-quantitative and descriptive-explanatory, carried out through 12 learning sessions in the classroom and in children's homes on a two-hour weekly basis in a row during the second semester of the 2019 school year.

To describe the beliefs of teachers and parents regarding the initiation of early literacy in preschool children, the in-depth interview technique prior to experimental treatment was used, considering as categories of analysis: a) perceptions of school-family linkage (a combination of communication interactions, experiences and knowledge between parents and teachers to concretize school assignments and learning competences envisaged for children); b) beliefs on early literacy and learning of graphomotor skills during the quasi-experimental single-group with pre and post-test were determined according to the results obtained by the observation technique and the evaluation-assessment sheet.

The evaluation-assessment sheet, as a research tool used to measure the level of learning in graphomotricity, basically presented the following structure:

GRAPHO-MOTRICITY (dimensions)	SKILL EXECUTION	EVALUATION CRITERIA	VALUATION SCALE
Manipulative-experience	Tense and relaxed syncretic lines	The student draws lines with angles and waves continuously using colored crayons.	According to the assessment level of learning levels established by the Ministry of Education of Peru: initiation C (00-10 points), process B (11-15 points) and achieved A (16-20 points).
Symbolic interiorization	Tight and loosened linear drawings	The child represents or replaces actual objects in internal objects by joining lines according to an image, and draws lines of the same size and direction, joins two points across a line, draws an object giving meanings.	
Perceptual representation	Iconographic drawings and opacity	Representation of open-closed figures, pre-schematic graphic shapes and free drawing, distinguishing the shape and background.	

2.4. Procedures for the implementation of the intervention model

- Formal authorization and consent of the institution management, teacher and parents to conduct the educational research proposal.
- Inclusion and approval of the proposal under participatory and consensus mecha-

nisms during shared working meetings between the teacher and parents. The research team has selected a representative to propose and agree on the purposes, procedures and actions of the joint work to be implemented in the classroom and at home.
- The implementation of the 12-classroom learning activities under the intervention model was carried out by a member of

the research team. The teacher and other researchers observed the class to balance the progress of the proposal and to make adjustments if required.

- The activities or tasks developed by children at home were executed following a simple procedure plan that was previously agreed and approved during the section meetings, according to the dimensions of the dependent variable and the expected learning achievements with respect to graphomotor skills. These activities were linked to the methodological sequence developed in the classroom called extension of the learning session, under the direction of the parents or relatives. In view of the expectation generated and the permanent request from the parents, the members of the research team attended to the implementation of activities at home to advise and monitor the intervention.

- The research team underwent a weekly evaluation of the progress of the experiment in all its components. Any proposed restatement involved consensus among all participants, particularly with the teacher.

- The in-depth interview was conducted before and after the meetings of parents and teachers, as well as at the times of entry, waiting spaces and exit of children from the educational institution, as a priority.

2.5. Variables/categories of analysis

The independent variable was represented by the family-classroom intervention model, typified as a learning-service strategy from which 12 learning sessions were designed and executed, focusing on the concretion of fine psychomotor activities, considering the visuomotor dimensions, manual and visual-manual. The graphomotricity, as a dependent variable, considered: Manipulative-experiential (tense and distended syncretic lines); symbolic interiorization (tight and loosened lines); and perceptual representa-

tion (iconographic lines and performance of opacities), which were measured by the learning scale established by the Ministry of Education of Peru: initiation C (00-10), process B (11-15) and achieved A (16-20).

Moreover, the beliefs described by parents and the pre-school education teacher of five-year-old children correspond to the category of analysis addressed from a qualitative perspective. For this purpose, the data collected were coded as follows: D=teacher and F=parent, adding a number in parentheses to differentiate each member of the population. Example: D(1) identifies the first teacher. For parents, the numbering reaches up to 18.

2.6. Data analysis

Quantitative data were analyzed using SPSS software, the calculated t and the specific p-value were determined in relation to the corresponding level of significance, as presented in the results section. For qualitative data, content analysis was used and the interpretation procedure basically consisted on considering the phrase as a unit of analysis to ensure the reliability of understanding and interpreting concepts or meanings. The statistical hypothesis proposed was:

$$Ho: \mu_2 = \mu_1$$
$$Ha: \mu_2 > \mu_1$$

3. Results

The study provides results of pedagogical and social value through qualitative data and reflections (beliefs about pre-school education) and quantitative data (learning of graphomotor skills through the family-school pedagogical intervention model), which are closely related with each other. As presented in the literature, beliefs or subjectivities constitute a space for the construction of meanings and senses that direct the actions and modes of being of individuals (Izaguirre & Alba, 2016); the beliefs or subjec-

tivities created by teachers guide their work, influence and modify their pedagogical practices, thus, are essential in the making of curricular decisions and the concretion of learning objectives, since they integrate new learning into practical situations. Finally, subjectivities guide the actions and decision-making of teachers (Cuadra et al., 2015; Gómez et al., 2014; Hernández-Álvarez, 2010).

3.1. Parent and teacher beliefs on pre-school education in five-year-old students

Pre-school teachers consider family-school involvement as a matter of co-responsibility to guarantee and contribute to an adequate comprehensive training and quality education; however, according to their pedagogical beliefs, initiating five-year-old children in writing skills is not common, but they are open to new teaching-learning situations and proposals.

> Both parents and us, teachers, are obliged to integrate, be closer to our children, and we are both responsible for their education. (D-1)

> The education of children is not the sole responsibility of the teacher but of the parents. (D-3)

> We have already made it clear in this institution and in all pedagogical meetings that initial education is not devoted to the teaching of literacy, let see what happens with the proposal, I am concerned, it seems different. (D-2)

Likewise, parents acknowledge that it is necessary to maintain constant communication with the teacher and the educational institution to have a better understanding of the progress and learning difficulties of children; and they expect to see their children acquire the basic skills in literacy at the end of initial education at the age of five.

> We must always be in communication. We are interested in the education of our children and

that they learn more, and they will learn better if the teacher makes an effort to teach them to read and write. (F-8)

> I agree with communication, otherwise how we would know the content learnt by our children, now it would be a great thing for our children to start and end the level knowing how to write something. (F-13)

> Parents are committed to our children; we will always be identified with the institution and willing to participate in everything. (F-1)

> The level consists in more games and little learning, I would appreciate if children ended up writing. (F-18)

> Yes, communication with the teacher is essential, otherwise we would not be aware of what is happening in the institution, it is very important. (F-5)

Some perceptions of parents point the educational institution as an independent organization and arbitrary to their interests, and think that teachers have the role of educating children; however, they are collaborative with the parent organization and the teacher.

> The institution never consults with parents, we are only dedicated to fulfilling what they command, but there we are, we take on any matter, we do not refuse anything. (F-4)

> If it is about teaching, it is definitely a role for teachers, we could perhaps support with something. (F-6)

The pedagogical beliefs of the educators regarding the teacher-parent bond of the family favor the sense of greater openness and permeability between both parties, sustained in respectful and reciprocal relations. They also emphasize that parents must be part of the feedback at home, a situation that involves cooperative work between parents and teachers in favor of children's learning.

They must understand that we as professors and parents, we model children, we have to be flexible and respect each other. (D-1)

Parents must reinforce what we do in the classroom, because children do not see us exactly as teachers. (D-2)

3.2. Model of involvement for the development of graphomotricity

The interactive family-classroom pedagogical intervention model designed in the method-ological perspective of the learning-service strategy, focused on the execution of fine psychomotor activities—and through quasi-experimental analysis it has allowed to increase learning levels in manipulative-experiential graphomotor skills, symbolic internalization and perceptual representation of five-year-old children. According to these results, the alternative hypothesis is accepted and the null hypothesis is rejected, as evidenced in the following table accompanied by the p-value and the corresponding decision rule.

Table 1. Results of the independent sample graphomotricity levels in five-year-old children

		Levene´s test of variance quality		T TEST FOR MEAN EQUALITY						
	F	Sig.	t	gl	Sig. (bila-teral)	Mean differences	Standard error differen	95% confidence interval of the difference		
								Inferior	Superior	
NOTES	Equal variances are assumed	3.568	.067	10.639	34	.000	-8.944	.841	-10.653	-7.236
	No equal variances are assumed			10.639	32.161	.000	-8.944	.841	-10.657	-7.232

Source: own elaboration according to the primitive data analyzed using SPSS

Determination of the p-Value

$$P \text{ Value} = \frac{Sig}{2}$$

Decision rule

Since P Value$<\alpha$ then Ho is rejected and Ha is accepted

Since $0< 0.05$ then Ho is rejected and Ha is accepted

The results of the study are consistent with other similar research work that confirmed the effectiveness of psychomotor and visuomotor intervention programs in the development of graphomotricity (Gonzáles, 2015; Layes et al., 2019); however, it is difficult to grant them a hundred percent of accuracy, since they require more scientific investigation. The design of quasi-experimental research without a control group is a limitation of internal validity that prevents

observing to which extent the independent variable is responsible for the changes observed in the learning of graphomotor skills.

However, there is no doubt of the benefits of the family-classroom pedagogical intervention model as a learning-service strategy even though they were not part of the purposes of the study (Mendia, 2016; Tapia, 2010): children work interactively with their parents and teachers to maximize their own learning; situations are generated in which particular forms of interaction are expected to occur in order to foster the learning process (Collazos & Mendoza, 2009); it involves teachers to restate the usual pedagogical processes to establish closer, dialogical and affective relationships with children, parents and the community in general to realize the aspirations related to the quality of learning and education; to renew the conventional roles of teachers through collaborative-interactive and consensual transactions aimed at achieving established goals (Revelo-Sánchez et al., 2018).

4. Discussion and conclusions

The family and the school constitute the most privileged spaces to build and create the integral development of children, and both parties must work together to satisfy and enhance with quality and relevance the learning capacities and talents of children; thus, it is necessary to have permanent and timely cooperation between the family and school. However, in our context, strategies to foster family-school-community linkages are still fragile, limited and traditional, leading to the development and redefinition of the role of education in general (Bermejo et al., 2020; Razeto, 2018); so that school is not a hope of well-being, but the place of permanent enjoyment (Bermejo & Maquera, 2019). The tendency to assess early literacy processes and the learning of writing in general as school-only practice (Vance et al., 2007), persists on a regular basis.

According to the results obtained, the school-home family involvement model is a feasible and acceptable learning-teaching strategy (Goldman et al., 2019), to accompany and follow the learning processes of graphomotor skills in five-year-old children, and it recognizes the active collaboration of parents in supporting children with the execution of specific activities assigned by teachers (Pastor, 2018). It is constituted in a privileged space of the participation and learning, and it is an essential methodology in the family formative process (Mendoza & Zúñiga, 2017); therefore, it has a pedagogical and social value.

Its implementation depends previously on the positive attitudes and beliefs of parents and teachers. Understanding the beliefs of teachers and parents regarding how to contribute to the construction of learning in children is crucial, as they support actual learning (Gerde et al., 2019); they act as filters of acquired knowledge that allow people to understand the world and develop in it in a certain way (Díaz, 2013); otherwise, as Patiño and Rojas (2009) mention that the learning that denies subjectivity is not pedagogy, because it would deny the subject as a builder of significant cultural, social and individual representations.

Family-classroom linkage strategies, supported by the execution of fine psychomotor activities according to the learning results obtained by most children included in the experimental analysis allow the increment or development of graphomotricity skills. Children can maximize their own learning by interacting through collaborative activities with their parents and teachers. Parents actively participate and assume co-responsibility in the educational processes of children at school, and teachers take on new roles and establish more dialogical and affective relationships with children and their parents, motivating them to achieve educational goals. In fact, different studies confirm that the development of graphomotor skills in children are based on the acquisition of fine motor skills (Gonzáles, 2015), which has a close relationship between fine motor and writing (Lica et al.,

2010); proposing the fine and coarse exercise for the learning of graphism (Segura et al., 2017), that will be useful to increase the identification and recognition of letters (Gil et al., 2012; Zemloc et al., 2018). However, it must be taken into account the limitations of scientific and methodological rigor of the study.

The experienced model was stimulating and challenging for learning graphomotor skills by establishing better relationships of trust and communication between the school reality and the everyday life of children. It accomplishes the child to perform proper and correct graphical execution actions on his or her own in the space to be represented, maintaining proper postural control, arm mastery, and how to hold the pen. Moreover, the procedure involved helps to materialize ideas that suggest activity and responsibility in children to shape their lifestyle (Ortiz, 2012). The child, developing the sense of movement and representation in an autonomous and reflective way, is not exposed to the classic phrase of what can and cannot be and leaves behind the imitation as a favorite procedure in pre-school education, but instead has his/her own initiative and social stimulus to develop own and diversified competences that will identify him/her as a unique and distinct person.

The importance of these findings lies not only in the design of challenging and stimulating learning contexts for children and in the fact of having generated opportunities and spaces between teachers and parents to participate, exchange and share experiences and knowledge during the accompaniment in children's educational processes, but in the verification of the existence of a human potential (Guerrero, 2000), capable of changing the trajectory of the daily basis. On the other hand, it is evident that the beliefs, knowledge, experiences and ability to adapt to unexpected changes of parents and professors regarding the formation of the child are the greatest strength, the best contribution and effort to change the educational culture. It is possible to create alternative realities of pedagogical practice by designing and participating in learning contexts shared between the school and the daily life of children. What parents and society expect from teachers and school can be found in themselves by experimenting, enriching and producing new styles and values of being parents and contributing to the human formation, transcending spaces and boundaries.

Reference

Alfonso, S., Deaño, M., Almeida, L., Conde, Á., & García-Señorán, M. (2012). Facilitación del conocimiento alfabético en preescolar a través del entrenamiento en codificación, grafomotricidad y lectura. *Psicothema*, *24*(4), 573-580. https://bit.ly/31Rjhth

Arnaíz, P., & Bolarín, M.J. (2016). *Introducción a la psicomotricidad*. Editorial Síntesis S. A.

Balongo, E., & Mérida, R. (2017). Proyectos de trabajo: una metodología inclusiva en Educación Infantil. *Revista Electrónica de Investigación Educativa*, *19*(2), 125-142. https://bit.ly/36LJs8L

Benítez, M., & Sánchez, C. (2018). Procesos educativos en educación infantil mediante el grafismo y la escritura. *Enseñanza & Teaching. Revista Interuniversitaria de Didáctica, 36*(2), 195-214. https://bit.ly/3qyK8pO

Bermejo, S., Maquera, Y.A., & Bermejo., L.Y. (2020). Procesos de educación intercultural y autosegregación indígena en los aimaras de Puno-Perú. *Revista Historia de la Educación Latinoamericana*, *23*(34). https://bit.ly/39OVFLA

Bermejo-Paredes, S., & Maquera-Maquera, Y. (2019). Interpretación de la escuela rural andina en comunidades aimaras de Puno-Perú. *Revista Electrónica Educare*, *23*(2), 1-15. https://bit.ly/37HBtsv

Cisternas, Y., Ceccato, R., Gil, D., & Marí, M.I. (2014). Funciones neuropsicológicas en las habilidades de inicio a la lectoescritura. *Revista INFAD de Psicología*, 1 (1), 115-122. https://bit.ly/37zAfiS

Chiva-Bartoll, O., & Gil-Gómez, J. (2018). *Aprendizaje-servicio universitario. Modelos de intervención e investigación en la formación inicial docente.* Octaedro.

Collazos, C., & Mendoza, J. (2009). Cómo aprovechar el "aprendizaje colaborativo" en el aula. *Educación y Educadores, 9*(2), 61-76. https://bit.ly/33Pxn0b

Cuadra, D., Jorquera, R., & Pérez, M. (2015). Las teorías subjetivas del profesor acerca de su salud laboral: implicancias en la promoción de la salud preventiva en el trabajo docente. *Revista Ciencia y Trabajo, 17*(52), 1-6. https://bit.ly/2VGty90

Deeley, S. (2016). *El aprendizaje-servicio en educación superior. Teoría práctica y perspectiva crítica*. Narcea.

Díaz, C. (2013). Estudio de caso sobre las creencias de estudiantes de pedagogía en inglés respecto a la autoeficacia percibida y la enseñanza del idioma. *Núcleo, 25*(30), 41-67. https://bit.ly/3kKoawX

Díaz, G.M. (2019). *Tratamiento pedagógico de las alteraciones en la lectura y la escritura*. Monografía de Licenciatura. Universidad Nacional de Educación Enrique Guzmán y Valle. Lima. https://bit.ly/3gVsK9g

Ferreiro, E. (2006). La escritura antes de la letra. *CPU-e, Revista de Investigación Educativa*, (3), 1-52. https://bit.ly/2XZdfWC

Ferrer, M., & Riera, M. (2015). Relaciones y encuentros con las familias en educación infantil. *RELAdEI Revista Latinoamericana de Educación Infantil, 4*(2), 27-42. https://bit.ly/3gTPd6V

Fornaris, M. (2011). Factores necesarios para la adquisición de la lectoescritura. *Cuadernos de Educación y Desarrollo*, (30), 3. https://bit.ly/3fRKCR5

Gerde, H.K., Wright, T.S., & Bingham, G.E. (2019). Creencias de los maestros de preescolar e instrucción para la escritura. *Revista Educación Docente de la Primera Infancia, 40*(4), 326-351.

Gil, J., Moliner, O., Chiva, O., & López, R. (2016). Una experiencia de aprendizaje-servicio en futuros docentes: Desarrollo de la competencia social y ciudadana. *Revista Complutense de Educación, 27*(1), 53-73. https://bit.ly/2VFg3GM

Gil, S.A., Deaño, M.D., Almeida, L.S., Rodríguez, A.C., & García, M. (2012). Facilitación del conocimiento alfabético en preescolar a través del entrenamiento en codificación, grafomotri-

cidad y lectura. *Psicotema, 24*(4), 573-580. https://bit.ly/31Rjhth

Goldman, S.E., Sanderson, K.A., & Lloyd, B.P (2019). Efectos de la comunicación entre la escuela y el hogar con refuerzo implementado por los padres en el comportamiento fuera de la tarea para estudiantes con TEA. *Discapacidades Intelectuales y del Desarrollo 57*(2), 95-111. https://bit.ly/33Nf7EW

Gómez-Díaz, R., García-Rodríguez, A., & Cordón-García, J.A. (2015). APPrender a leer y escribir: aplicaciones para el aprendizaje de la lectoescritura. *Education in the Knowledge Society, 16*(4), 118-137. https://doi.org/10.14201/eks2015164118137

Gómez, V., Muñoz, C., Silva, I., González, M.P., Guerra, P., & Valenzuela, J. (2014). Creencias y oportunidades de aprendizaje en la práctica educativa en contextos de pobreza. *Perfiles Educativos, 36*(144), 173-188. https://bit.ly/39MFMFm

Gonzáles, J. (2015). Las competencias de comunicación en el inicio de la lectoescritura. *Revista Brasileira de Estudios Pedagógicos, 96*(243), 416-438. https://bit.ly/3mLZgxP

González, M.E. (2015). La escritura en primer año de la escuela primaria y la psicomotricidad. *Revista Psicomotricidad, Movimiento y Emoción*, (1), 1-14. https://bit.ly/2PMxZwj

Grabowski, J. (2010). Speaking, writing and memory span in children: Ouput modality affects cognitive performance. *International Journal of Psychology, 45*(1), 28-39. https://doi.org/10.1080/00207590902914051

Guerrero, L. (2000). Educación inicial: a la búsqueda del tesoro escondido. ¿Cómo enfocar la misión de la educación inicial hacia la emergencia y el florecimiento del inmenso potencial humano? *Revista Iberoamericana de Educación, 22*, 75-92. https://bit.ly/31OCwnl

Gutiérrez, D., Socorro, A., & Ruiz, M. (2018). Impacto de la educación inicial y preescolar en el neurodesarrollo infantil. *IE Revista de investigación educativa de la REDIECH, 9*(17), 33-51. https://bit.ly/2Yf3AeP

Gutiérrez, R., & Díez, A. (2015). Aprendizaje de la escritura y habilidades de conciencia fonológica en las primeras edades. *Bordón. Revista de Pedagogía, 67*(4), 43-59.

https://bit.ly/3gcTQJI

Hall, A.H., Simpson, A., Guo, Y., & Wang, S. (2015). Examinando los efectos de la instrucción de escritura preescolar en las habilidades emergentes de alfabetización: una revisión sistemática de la literatura. *Alfabetización, Investigación e Instrucción*, *54*(2), 115-134. https://bit.ly/3kEUUaV

Hernández-Álvarez, J.L., Velázquez-Buendía, R., Martínez, M. E., & Díaz del Cueto, M. (2010). Creencias y perspectivas docentes sobre objetivos curriculares y factores determinantes de actividad física. *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte*, *10*(38), 336-355. https://bit.ly/2VI08Yj

Huda, M., Shukri, K., Hisyam, N., & Mohd, B. (2018). Transmitir la responsabilidad cívica basada en el liderazgo: conocimientos del aprendizaje mediante servicio. *Revista Internacional de Ética y Sistemas*, *34*(1), 20-31. https://bit.ly/3qsEnKl

Izaguirre, R., & Alba, D. (2016). Reflexiones sobre el papel de la subjetividad en el proceso docente-educativo. *MULTIMED, 20*(2), 437-448. https://bit.ly/3osXUrY

James, Kh. (2017). La importancia de la experiencia de escritura a mano en el desarrollo del cerebro alfabetizado. *Direcciones Actuales en Ciencias Psicológicas*, *26*(6), 502-508.

Keyser, J. (2006). *De padres a socios: Construyendo un programa de primera infancia centrado en la familia.* NAEYC y Redleaf Press.

Lara, P.A., & Pulido, O. (2020). Escritura como práctica de sí y escuela rural. *Praxis & Saber*, *11*(25), 21-45. https://bit.ly/33NqRat

Layes, S., Chouchani, M.S., Mecheri, S., Lalonde, R., & Rebaï, M. (2019). Eficacia de una intervención basada en visuomotor para niños con discapacidades de lectura y ortografía: un estudio piloto. *Revista Británica de Educación Especial*, *46*(3), 317-339.

Lica, M.M., Ruiz, D.L., & González, A.P. (2010). Relación entre ejecuciones deficientes de motricidad fina con dificultades de escritura: Análisis de un caso. *Revista de Educación y Desarrollo*, (13), 17-23. https://bit.ly/2PQ01qG

Lurçat, L. (1988). *Pintar, dibujar, escribir, pensar. El grafismo en el preescolar*. Cincel-Kapelusz.

Mendía, R. (2016). El aprendizaje-servicio una metodología para la innovación educativa. *Convives*, *16*, 20-26. https://bit.ly/2VKNrMe

Mendoza, E., & Zúñiga, M. (2017). Factores intra y extra escolares asociados al rezago educativo en comunidades vulnerables. *Alteridad. Revista de Educación, 12*(1), 79-91. https://bit.ly/3qqIt5s

MINEDU (2017). Programa Curricular de Educación Inicial. https://bit.ly/33VCNaX

Mir, M., Batle, M., & Hernández M. (2009). Contextos de colaboración familia-escuela durante la primera infancia. *Revista Electrónica de Investigación e Innovación Educativa y Socioeducativa*, *1*(1), 45-58. https://goo.gl/dGD1Kb

Montealegre, R. (2006). Desarrollo de la lectoescritura: adquisición y dominio. *Acta Colombiana de Psicología, 9*(1), 25-40. https://bit.ly/30TvCy5

Ortiz, M.E. (2012). Currículo y competencia. ¿Qué sujeto infantil están produciendo? *Alteridad. Revista de Educación, 7*(1), 50-57. https://doi.org/10.17163/alt.v7n1.2012.04

Palos, M.Ú., Avalos, M.L., Flores, F., & Montes, R. (2017). Creencias de madres y docentes sobre el aprendizaje de la lectoescritura en Educación Preescolar. *Revista Actualidades Investigativas en Educación, 17*(3), 168-189. https://bit.ly/3lLBIrv

Parodi, G. (2010). *Saber leer*. Instituto Cervantes Aguilar.

Pastor, R. (2018). Construyendo escuela juntos. Estrategias de vinculación entre la familia y la escuela. *Educación y Futuro. Revista de investigación aplicada y experiencias educativas,* (39), 89-116. https://bit.ly/3anBYc1

Patiño, L., & Rojas, H.M. (2009). Subjetividad y subjetivación de las prácticas pedagógicas en la universidad. *Educación y Educadores*, *12*(1), 93-105. https://bit.ly/2IgDx1O

Puig, J.M., Batlle, R., Bosch, C., & Palos, J. (2007). *Aprendizaje servicio. Educar para la ciudadaní*a. Editorial Octaedro.

Ramón, M. (2016). *El papel de la grafomotricidad como paso previo a la escritura*. (Tesis maestría). Departamento de Educación. Universidad

Jaume I. Castellón-España. https://bit.ly/33WTcMn

Ramos, M. (2011). El problema de comprensión y producción de textos en el Perú. *Revista Digital de Investigación en Docencia Universitaria*, *5*(1), 30-53. https://doi.org/10.19083/ridu.5.5

Razeto, A. (2018). Estrategias para promover la participación de familias en la educación de niños en escuelas chilenas. *Educação e Pesquisa*, *44*, 1-20. https://bit.ly/2LfNEoZ

Revelo-Sánchez, O., Collazos-Ordoñez, C.A., & Jiménez-Toledo, J.A. (2018). El trabajo colaborativo como estrategia didáctica para la enseñanza/aprendizaje de la programación: Una revisión sistemática de literatura. *Tecnológicas*, *21*(41), 115-134. https://bit.ly/3lKUrTZ

Reynoso, M. (2019). XI Congreso Internacional de Investigación y Práctica Profesional en Psicología. XXVI Jornadas de Investigación. XV Encuentro de Investigadores en Psicología del MERCOSUR. I Encuentro de Investigación de Terapia Ocupacional. I Encuentro de Musicoterapia. Facultad de Psicología-Universidad de Buenos Aires, Buenos Aires. https://bit.ly/33T7uNX

Segura, M., Sabaté, M., & Caballé, C. (2017). La psicomotricidad, un recurso para la mejora del grafismo en educación infantil. Aportaciones de la psicomotricidad al grafismo. *Revista Iberoamericana de Psicomotricidad y Técnicas Corporales*, (42), 5-19. https://bit.ly/30S07En

Serrano, P., & Luque, C. (2019). *Motricidad fina en niños y niñas. Desarrollo, problemas, estrategias de mejora y evaluación*. Narcea, S.A.

Suárez, B. (2004). El desafío de la escritura: en busca de la grafomotricidad. *Revista Iberoamericana de Psicomotricidad y Técnicas Corporales*, (16), 5-16.

Sugrañes, E., Àngel, À.M., Neus, M. Antón, M., Colomé, J., Martí, M.T., Martín, R.M., Pinell, M., Rodríguez, N., Yuste, M., & Yuste, R. (2007). *La educación psicomotriz (3-8 años). Cuerpo, movimiento, percepción, afectividad:U propuesta teórico práctica*. Graó.

Tapia, M.N. (2010). La propuesta pedagógica del 'Aprendizaje-Servicio': Una perspectiva latinoamericana. *Tzhoecoen, Revista Científica*, 5, 23-43.

UNESCO (2014). El Informe de seguimiento de la EPT en el mundo. Enseñanza y aprendizaje: lograr la calidad para todos. UNESCO. https://bit.ly/31QbxrK

Vance, C., Smith, P.H., & Murillo, L.A. (2007). Prácticas de lectoescritura en padres de familia. Influencias en el desarrollo de la lectoescritura de sus hijos. *Revista Latinoamericana de Lectura*, *28*(3), 6-15. https://bit.ly/3kH7zKq

Zemloc, D., Vinci-Booher, S., & James, Kh. (2018). La producción de símbolos visuales-motores facilita el reconocimiento de letras en niños pequeños. *Leyendo y Escribiendo*, *31*(6), 1255-1271.

The inadmissibility of standardizing the teaching work: An analysis from Chile

La improcedencia de estandarizar el trabajo docente: Un análisis desde Chile

Cristian Oyarzún-Maldonado *is coursing a PhD and is a researcher at Universidad de Chile (Chile)*
(cristian.oyarzunm@usach.cl) (https://orcid.org/0000-0003-4811-8633)

Rodolfo Soto-González *is coursing a PhD and is a researcher at Universidad de Barcelona (Spain)* (rodolfo.soto@usach.cl)
(https://orcid.org/0000-0003-3061-6036)

Abstract

Every day, more countries implement reimbursement and standardization policies as a way to solve problems related to equity and quality education. This article examines the design appropriateness of teaching work, based on different standardization mechanisms. Thus, the Henry Mintzberg proposal is used, an organizational theory behavior that proposes coordination mechanisms regarding different ways of organizing work according to its characteristics and objectives. Using this theoretical framework, the Chilean school model is analyzed, which stands out using standardization to regulate processes and results. The analysis confirms the hegemony of these standardization mechanisms using different evaluative and prescriptive devices of the school policy, as well as allows to affirm their inadmissibility because of diverse empirically supported negative externalities. Emanating of mentioned above, the appropriateness of other coordination mechanisms for the design of school policy is discussed, proposing a model that prevails in regulatory forms linked to the development of situated skills, collaborative work and training in socio-educational values.

Keywords: Chilean school model, school policies, teaching work, standardization of processes, standardization of results, organizational behavior.

Resumen

Cada vez, más países implementan políticas de rendición de cuentas y estandarización como solución a los problemas de equidad y calidad educativa. Este artículo examina la pertinencia de diseñar el trabajo docente con base en diferentes mecanismos de estandarización. Para ello, se utiliza la propuesta de Henry Mintzberg, una teoría de comportamiento organizacional que plantea mecanismos de coordinación referidos a distintas formas de organizar el trabajo según sus características y objetivos. Con este marco teórico se analiza el modelo escolar chileno, que sobresale por el uso de la estandarización para regular procesos y resultados. El análisis confirma la hegemonía de estos mecanismos de estandarización mediante distintos dispositivos evaluativos y prescriptivos de la política escolar; así como también permite afirmar su improcedencia por efecto de diversas externalidades negativas empíricamente sustentadas. A partir de este examen se discute la pertinencia de otros mecanismos de coordinación para el diseño de la política escolar; proponiéndose un modelo que prevalezca en formas regulatorias ligadas con el desarrollo de habilidades situadas, el trabajo colaborativo y la formación en valores socioeducativos.

Descriptores: Modelo escolar chileno, políticas escolares, trabajo docente, estandarización de procesos, estandarización de resultados, comportamiento organizacional.

1. Introduction

In the face of the challenge for improving the quality and equity of contemporary school systems, one of the most booming governance models in the current global education agenda is New Public Management (NPM), which, with different local adaptations, has been implemented in several countries in Asia, Europe, Latin America and North America (Bezes et al., 2012; Hall et al., 2015; Holloway et al., 2017; Maroy & Pons, 2019; Maroy et al., 2016; Normand et al., 2018). This model is based on the transfer of theories and management techniques from private enterprise to traditionally public organizations (Ball & Youdell, 2008) such as schools. It is concretized into a set of measures that can include provision through quasi-markets, administrative decentralization, performance agreements, standardization of practices and results, accountability with high-risk consequences, payment for achievement of goals, among others (Anderson & Cohen, 2015; Carvalho & Normand, 2018; Gleeson & Knights, 2015; Verger & Normand, 2015).

Far from generating consensus and unfettered adherence, the application of the NPM in the educational field causes intense debate and questioning about its ability to promote school improvement (Maroy & Pons, 2019; Normand et al., 2018). Thus, international literature has concentrated on those devices that standardize pedagogical results and practices, as well as on the negative externalities entailed for the teaching work. In this regard, it has been argued that the use of standardized tests to measure large-scale learning linked to consequences leads to curricular reductionism and an overevaluation of the results, becoming the sole purpose of teaching (Chan, 2010; Darling-Hammond, 2014; Luengo-Navas, & Saura-Casanova, 2013). In turn, findings on the standardization of the work of the faculty have been reported, warning profound changes in the daily work that are translated into performance (Ball et al., 2013), emasculation of local knowledge against the application of the policy (Herr, 2015), and psychological distress due to an intensification of work to achieve its adaptation to these applications (Tsang & Kwong, 2016; Viera & Oliveira, 2013).

In this general context, this article presents a theoretical analysis of the difficulties involved in applying the standardization mechanisms of the NPM in the teaching work and its methodological inadequacy to regulate pedagogical practices. To this end, Henry Mintzberg's theory, a theory of organizational behavior that proposes coordination mechanisms for six forms of operationalization, is used as an analytical framework to verify and articulate organization's activities, which vary according to the nature and objectives of the work (Mintzberg, 1980; 1984). This theory deals profusely, through coordination mechanisms, with standardization by results and processes, providing arguments regarding its connection to specific work activities. Therefore, these conceptual approaches allow to analyze the relevance or inappropriateness of these forms of coordination applied to the teaching work.

The aim of this analysis will be to focus on Chile's school policy, a national case that is described as extreme in the adoption of market-oriented policies and NPM-based devices, and that stands out for the use of standardization mechanisms at both the school and teacher management levels (Assaél & Cornejo, 2018; Falabella, 2015; Verger et al., 2016). In a timely manner, the standardization of results by means of the SIMCE,[1] is relaunched, and it not only evaluates the learning levels achieved by standardized national tests, but also the main source of data used for the elaboration of a performance ranking[2] associated with punishments applied to schools (Assaél et al., 2018; Carrasco, 2013; Pino et al., 2016). An intense standardization of pedagogical practices is identified and observed in official instruments that systematize "best practices", among which can be named the Manual of Good Teaching (MBE) that operates prescriptively in support of a National System of Teaching Evaluation with high-risk conse-

quences (Ávalos, 2017; Cavieres & Apple, 2016; Cornejo et al., 2015; Fardella, 2013; Sisto, 2012). The topic becomes more relevant to the Latin American context due to the growing dissemination of educational privatization models in the region (Verger et al., 2017) and, particularly, of models based on standardization (Internacional de la Educación para América Latina, 2015).

Because of the latter, this article is structured into three main paragraphs. The first section provides a conceptual description of the coordination mechanisms that are postulated in Mintzberg's theory. Secondly, the correspondence of standardization of processes and results with the standardization forms applied in the Chilean school policy is analyzed, and questions are also raised about the application of this type of standardization in the teaching work. The third paragraph proposes other coordination mechanisms which are more relevant to the pedagogical activity. Finally, the conclusions present a synthesis of the analysis carried out and its implications for the design of the policy.

2. Henry Mintzberg's coordination mechanisms

All organizations require designing and performing a number of specific tasks to achieve their objectives. Therefore, every productive activity requires a process or sequence of interdependent actions, which can be regulated by means of coordination mechanisms (Pucheu, 2013; Schmidt, 2006). As mentioned, coordination mechanisms are various ways of systematizing, verifying and articulating the work, which are used to design and ensure the success of a productive process. Thus, they are considered fundamental elements in the structure of an organization, as they operate as the link that keeps it together and communicated. Following the postulates of cybernetics, they can also be understood in terms of forms of control, as they — coordination and control — aim to check the quality of the actions conducted (Mintzberg, 1992; 1993).

Henry Mintzberg (1980) proposes six coordination mechanisms:

The first is called *mutual* adjustment and it consists of obtaining coordination of work through simple informal communication in horizontal interactions. This means of coordination is typical of informal organizations, where people work closely together and based on informal relationships. It is also often used in highly specialized organizations, as it operates in circumstances of extreme complexity and uncertainty that require innovative responses (Mintzberg, 1984).

The second is *direct supervision*, which achieves coordination by endorsing the responsibility of one person over the work of others, verticalizing labor relations through instructions and direct enforcement (Mintzberg, 1984).

The third mechanism is *standardization of processes*, referring to a form of coordination related to a work program that prescribes sequences of processes or practices, thus reducing the need for continuous and face-to-face communication. This coordination is determined *a priori*, i.e., before work tasks are performed, since work processes, both inputs — skills and knowledge — and outputs — actions — can be made in a predetermined regulation or manual of procedures (Mintzberg, 1984).

The fourth term is standardization of results, which aims to normalize results by prescribing them, focusing only on the expected performance (Mintzberg, 1984).

The fifth mechanism, *skills standardization* is the most appropriate form of coordination in complex tasks, which cannot employ the two previous forms of standardization (Pucheu, 2013). In more detail, this standardization modality deals with the specification of the skills and knowledge required to perform a job. Thus, the standardization of skills achieves indirectly and organically what the other normalizations — processes and results — attempt to achieve in an exogenous and prescriptive manner (Mintzberg, 1984).

Finally, there is the *standardization of criteria*, which conceives the coordination based on the transmission of a system of beliefs and meanings shared among the members of the organization, i.e., the construction of an organizational culture (Mintzberg, 1984).

Although no organization bases its operation on a single coordination mechanism, but instead these have simultaneous occurrence, it is common that organizational objectives and design parameters of the work have a predominance in favor of mechanisms over others. In this sense, following the notion of predominance, Mintzberg (1984) identifies a typology of organization whose functioning is based mainly on the standardization of processes and results, essential in the context of this analysis.

There are organizations that operate in various productive and service sectors, but they are characterized by operational routine work with highly standardized processes, this is called mechanical bureaucracy. In this configuration, technostructure[3] exerts its influence by prescribing the work processes through a limited horizontal decentralization and generating an order-oriented structure and repetition of processes to achieve prescribed results (Mintzberg, 1980). *Mechanical bureaucracy* is effective under conditions where the task and environment are usually stable and simple. On the contrary, these centralized control systems generate organizations that, when dealing with varying circumstances, become slow and ineffective. This is evident in activities where personal services or capacity transfer are sought, as these activities require particular responses to the needs of each user (Pucheu, 2013).

3. Standardization of processes and results in the teaching work: The case of Chile and its questionings

In a school system with national scope, it is possible that all the coordination mechanisms proposed by Mintzberg will be accommodated. However, in the case of Chile, the adoption of NPM devices has strengthened the application of consequences in the form of incentives and threats of dismissal or closure in the face of non-compliance with standardized practices and results (Oyarzún et al., 2019). For the above, even if there is coexistence of multiple forms of coordination, the mechanisms of standardization of processes and results achieve greater centrality in the Chilean school system. This section will analyze synthetically how these two mechanisms condition the teaching work, along with the questions arising from the examination.

To understand how standardization of processes is presented in the normal work of teachers from the perspective of Mintzberg (1984), it is necessary to note that this author suggests the relevance of standardization of skills for the organization of schools. Structural configurations resulting from the primacy of any of these standardization mechanisms, whether processes, results or skills, differ in terms of the autonomy conferred to the staff, i.e. teachers working in the classroom. In simple terms, in the face of standardization of skills, the autonomy of teachers increases, while in the face of standardization of processes or results the autonomy decreases, while the power remains in the external prescriptions of the instruments of the policy.

In Chile, the legal provisions have ensured that teachers are positioned as implementers of plans, curriculum bases and non-school normative frameworks, elaborated without their participation and, therefore, reducing their autonomy (Cornejo et al., 2015; Fernández et al., 2016; Sisto, 2012). The strategies that formalize the content of pedagogical practice include mandatory curriculum bases, school texts of state distribution, the MBE and various accountability mechanisms with high-risk consequences, applied at both the teacher and school levels (Assaél et al., 2018).

As an example of the above, at the individual level, the teacher performance is linked to a National Evaluation System that results in

consequences related to incentives — individual bonuses and access to improvement facilities— and sanctions — possibilities for dismissal after two ongoing assessments at an *inadequate* level, the lowest performance category— (Bonifaz, 2011). This evaluation is based on four instruments that measure compliance with standards or performance indicators contained in the MBE, including the unrestricted application of curriculum bases and pre-established pedagogical practices (Taut & Sun, 2014). Despite the changes made through the recent Law on Professional Development of 2016, several authors argue that the evaluative system retains a predominantly managerial modality, mainly based in a high-consequence individual accountability (Assaél & Cornejo, 2018; Ávalos, 2017; Ruffinelli, 2015).

On the other hand, at the organizational or school level, the school management model — strongly influenced by the NPM — establishes vertical contract systems in which schools sign agreements for the fulfillment of management standards and results, whose non-compliance implies eventual sanctions installed with the enactment of the Preferred School Grant Act (SEP) of 2008 (Oyarzún et al., 2019). From this milestone, schools are ranked according to their performance—as anticipated, the rating system was perfecting—so that sustained low performance could involve the closing of the school organization (Parcerisa & Falabella, 2017).

These strategies make it difficult to assume that they are used as a condition of standardization. However, in the case of Chile, these strategies are applied through high-consequence accountability at the organizational and individual levels. This sets up a strongly prescriptive system that applies standardization as the main coordination mechanism and, therefore, as the central objective of the teaching work. The standardization of results is particularly important, since it is mainly the results obtained by the students in the SIMCE that determine, to a greater extent, the classification categories. In addition, such results are published and are viewed by families, adding social pressure and strengthening the centrality of this type of coordination mechanism. Research and experiences in Chile report that such provisions lead the teaching work to unexpected practices such as the loss of collaborative work (Assaél et al., 2012; Assaél et al., 2014) and training for standardized assessments, leading to the devaluing of other areas of knowledge (Pino et al., 2016; Reyes & Akkari, 2017; Weinstein et al., 2016). Thus, the deprofessionalization is that compliance with these external instruments and evaluations is expected in conditions where the time is insufficient and, moreover, it is required to hold responsibility for a high volume of administrative work, intended only for the production of evidence to be held (Assaél et al., 2012; Braslavsky, 1999; Fardella, 2013; Rojas & Leyton, 2014).

Thus, why standardizing the processes and results of a job? According to Mintzberg, occupational activities are standardized to reduce their variability, operate under qualified and uncertain conditions and thus ensure their prediction; as well as respond to an arbitrary desire for order, exercising control over behavior, concentrating power on the technostructure and/or perceiving the worker as an interchangeable piece. However, variability and diversity in pedagogy are the rule and, therefore, structuring the pedagogical practice to an "average" and non-existent student only promotes exclusion and generates an educational service that unduly addresses the needs of learners (Meyer et al., 2014).

Moreover, Mintzberg (1980; 1984) states that professional work cannot be controlled because of its high complexity and multiplicity of possible results, and its standardization by processes or results is inappropriate. Thus, the standardization of processes and results applied to the professional work of teachers has several perverse effects: A) it implies the obedience to standards by professionals becomes an end in itself; b) it becomes ineffective as the professional operator loses control over complex work; c) it reduces the analytical processes underly-

ing the professional work; d) it imbalances the relationship between the professional-client (in this case teacher-student) by undoing free and personal contact; e) it reduces innovation; and f) it increases the passivity of the professional.

Finally, it is important to examine the role of *direct supervision* as a coordination mechanism which, in the context of the Chilean system, appears subsumed to the supremacy of standardization by processes and results. While the current policy discourse attributes a transcendent role to managers and members of the management team as "pedagogical leaders," in their daily work, they are primarily concerned to ensure that their schools advance in the categories of performance through better results in the SIMCE and to ensure sufficient funding sources according to the per capita subsidy system (Montecinos et al., 2015; Weinstein et al., 2016). Consequently, according to the empirical evidence in Chile, some of the resulting consequences involving policy decisions are: (A) the application of selection measures to improve the socio-economic and cognitive composition of the student (Carrasco et al., 2017; Weinstein et al., 2016); (b) Implementation of discrimination and expulsion measures (Carrasco & Fromm, 2016); c) concentration of students with intellectual disabilities in schools of lower socioeconomic status (Fundación Chile, 2013; Rosas & Santa Cruz, 2013); and d) concentration of the teaching practice in the evaluated areas, moving away from an integral conception of teaching (Assaél et al., 2018; Reyes & Akkari, 2017).

4. Discussing "the other" coordination mechanisms in Chile

As noted, Mintzberg asserts that standardization of processes and results are not adequate mechanisms for coordinating pedagogical practices (Mintzberg, 1984; Pucheu, 2013). Specifically, this author assumed that standardization of skills could be considered as a device that better suited the inherent complexity of the education-

al situation. Organizationally, the result of prioritizing this mechanism entails the emergence of professional bureaucracies, characterized by a group of professionals who have autonomy but do not necessarily collaborate with each other.

Following Mintzberg (1984), common problems arising in professional bureaucracy include: A) difficulty in coordinating professionals; b) constraints from trying to understand contingencies outside the categories of knowledge they share; (c) difficulty in dealing with unethical professionals, since skills, though standardized, require considerable judgment; (d) difficulty in dealing with incompetent professionals who do not want to update their knowledge; (e) lack of attention to the needs of the organization, as they are not perceived as part of a team; f) lack of adaptation to the needs of users to include only what professionals know or want to do; g) inability to innovate.

In this line, Braslavsky (1999) quotes Mintzberg, stating that this theory allows to understand, from a historical perspective, the state of professionalization that existed before the current deprofessionalization of the Magisterium. This author proposes that, rather than seeking to professionalize or return to the previous situation, it is necessary to re-professionalize or reinvent the teaching profession for the 21st century. This process should primarily consider skills that allow a better performance in daily life problems and situations and greater participation in the reinvention of the school and the educational systems.

Additionally, Carbonneau and Hétu (2005) state that each teacher must face unprecedented situations and, for which the professor must draw up a unique response, since there are no universal solutions to educational problems. Thus, competences are required to critically analyze practices, taking into account multiple action models (Carbonneau & Hétu, 2005), theoretical bodies and standards (Altet, 2005) and, of course, the needs and particularities of the students in their context (Coll, 2016). Therefore,

the normative frameworks that prescribe the teaching practice in a generic way in Chile, for example, the MBE, may be useful as one among various pedagogical models or approaches.

Vocational training depends on a reflective analysis carried out with teaching peers and focused on daily pedagogical practices, the result of which will be knowledge based on action (Altet, 2005). Therefore, collaboration is essential to foster innovation and educational improvement processes from shared reflection (Butler & Schnellert, 2012). From the Mintzberg model, it is possible to assimilate the mechanism called mutual adjustment with the dynamics of collaborative work. Indeed, this theorist postulates that this mechanism allows a better adaptation to complex and particular situations and, moreover, it favors innovation.

In this scenario, learning communities resulting from strengthening mutual adjustment can favor the discussion of technical aspects, but also of values and purposes, being essential a diversity of ideas (Philpott, 2018). Consequently, reflective and collaborative spaces can include teachers and other educational actors and members of the educational community, giving way to common agreements under democratic reasoning. This is also the case for *standardization of criteria*, formulated by Mintzberg, which contributes to the development of organizational cultures, but from an inductive logic, i.e., from constructive dialogue between the different social actors that make up a community. The development of both mechanisms identified — *mutual adjustment* and *standardization of criteria*—could induce the generation of professional skills, but no longer from the logic of the standard emanating from a centralized matrix, but from a focused perspective that responds to the ever-changing and contextual diversity and teaching condition.

The application and development of work closely related to pedagogy also depends on structural conditions. In this sense, three critical aspects are identified for the occurrence of collaborative and innovative work based on located knowledge. Firstly, management practices promoted from the policy that aim to install collaborative and reflective dynamics at the school level are still incipient,[4] because these depend on what might lack genuine use by educational actors by the pressure from NPM strategies, also the mandatory requirement via decrees or regulations do not guarantee their appearance or permanence. In this regard, the importance on deactivating the sanctioning mechanisms that provide prescriptive character promoted by school policy is identified. Secondly, temporary spaces are needed to facilitate collaborative work, such as learning communities. This aspect seems to be still insufficient, since even when considering the changes introduced by the Law on Professional Development, the time for class preparation reaches only 35% in 2019 (OECD, 2017). Thirdly, another aspect is the low confidence placed in educators, their local skills and knowledge (Carrasco, 2013; Sisto, 2012). In this connection, the individual evaluation endorsed in the Law on Teaching Professional Development is viewed as a strategy (Ávalos, 2017; Ruffinelli, 2016), that externalizes the categorization of "good" and "bad" professors by judging external evaluators based on a set of standards. This not only exerts an impulse against collaborative work, but also shows distrust in teachers' skills and professional judgment.

5. Final considerations

The previously revised approaches allow to understand that the theoretical contributions of Mintzberg are distanced from the normative structuring of the Chilean school system, particularly in relation to the pedagogical practices and the school management. In more detail, the use and application of NPM devices and technologies, assumed as effective (Verger & Normand, 2015), generates perverse effects or negative externalities. Thus, it is possible that the secondment to prescriptions is an end in itself or that

the analytical processes underlying pedagogical work be drastically reduced, among others. In other words, standardization processes and results are inappropriate in the face of pedagogical dynamics and, paradoxically, these tend to bureaucratize the teaching work rather than make it more effective.

In conclusion, standardization mechanisms by processes and results that require conditions of regularity and simplicity are damaging; hence, other ways of regulating this type of work are necessary. Therefore, as a result of this analysis and when thinking about the design of the teaching work, it is proposed to consider other coordination mechanisms more similar to the pedagogical work, among which are identified: a) the standardization of skills: critical and reflective competences that include multiple theoretical and practical knowledge; b) mutual adjustment: facilitation of collaborative spaces and learning communities; and c) standardization of criteria: agreements generated inductively from schools.

Thus, the classification of coordination mechanisms mentioned by Mintzberg several decades ago in the organizational field constitutes a theoretical framework for understanding the various areas and dynamics that structure and regulate a school system. On time, it is possible to identify multiple problems related to the way of designing the teaching work in Chile. Throughout these pages we have even reflected, from the chosen perspective, possible ideas for the optimization of the school system analyzed.

Notes

1. *National System for Measuring the Educational Quality: Standardized evaluation of learning in the subjects of Language and Communication; Mathematics; Natural Sciences; History, Geography and Social Sciences; and English. The SIMCE tests are applied during 2°, 4°, 6°, 8° "básico", and "II medio" following an Evaluation Plan (Source: https://bit.ly/36tDuJo).*

2. *Law 20.529, which creates the System for the Assurance of the Quality of Education (2011), sets out four categories of performance: Insufficient, medium low, medium and high. In addition, article 31 provides conditions that could imply the loss of official recognition for a school that remains, at least, four years in the category of insufficient performance.*

3. *Group of technocrats responsible for the design of the work.*

4. *For example, hours for collaborative work between regular classroom teachers and professionals in the School Integration Program for the care of students with special educational needs (Source: https://bit.ly/39Ixiz0).*

References

Altet, M. (2005). La competencia del maestro profesional o la importancia de analizar las prácticas. En L. Paquay, M. Altet, E. Charlier, & P. Perrenoud (Coords.), *La formación profesional del maestro. Estrategias y competencias* (pp. 33-54). Fondo de Cultura Económica.

Anderson, G., & Cohen, M.I. (2015). Redesigning the identities of teachers and leaders: A framework for studying new professionalism and educator resistance. *Education Policy Analysis Archives, 23*(85). http://dx.doi.org/10.14507/epaa.v23.2086

Assaél, J., & Cornejo, R. (2018). Work regulations and teacher subjectivity in a context of standardization and Accountability Policies in Chile. In R. Normand, M. Liu, L. Carvalho, D. Andrade, & L. Levasseur (Eds.), *Education Policies and the Restructuring of the Educational Profession, Global and Comparative Perspectives* (pp. 245-257). Springer.

Assaél, J., Albornoz, N., & Caro, M. (2018). Estandarización educativa en Chile: tensiones y consecuencias para el trabajo docente. *Educação Unisinos, 22*(1), 83-90.

Assaél, J., Acuña, M., Contreras, P., & Corbalán, F. (2014). Transformaciones en la cultura escolar en el marco de la implementación de políticas de accountability en Chile. Un estudio etnográfico en dos escuelas clasificadas en recuperación. *Estudios Pedagógicos, 40*(2), 7-26. http://dx.doi.org/10.4067/S0718-07052014000300001

Assaél, J., Contreras, P., Corbalán, F., Palma, E., Campos, J., Sisto, V., & Redondo, J. (2012). Ley SEP en escuelas municipales emergentes: ¿cambios en la identidad docente? *Revista de Pedagogía Crítica, 11*, 219-228. http://dx.doi.org/10.25074/07195532.11.453

Ávalos, B. (2017). Teacher evaluation in Chile: Highlights and complexities in 13 of experience. *Teachers and Teaching, 24*(3), 297-311. https://doi.org/10.1080/13540602.2017.1388228

Ball, S., & Youdell, D. (2008). *La privatización encubierta en la educación pública.* Instituto de Educación, Universidad de Londres.

Ball, S., Bailey, P., Mena, P., del Monte, P., Santori, D., Tseng, C., Young, H., & Olmedo, A. (2013). A constituição da subjetividade docente no Brasil: um contexto global. *Revista Educação em Questão, 46*(32), 9-36. https://doi.org/10.21680/1981-1802.2013v46n32ID5114

Bezes, P., Demazière, D., Le Bianic, T., Paradeise, C., Normand, R., Benamouzig, D. Pierru, F., & Evetts, J. (2012). New public management and professionals in the public sector. What new patterns beyond opposition? *Sociologie du travail, 54*, 1-52. http://dx.doi.org/10.1016/j.soctra.2012.07.001

Braslavsky, C. (1999). Bases, orientaciones y criterios para el diseño de programas de formación de profesores. *Revista Iberoamericana de Educación, 19*, 13-50. https://doi.org/10.35362/rie1901054

Bonifaz, R. (2011). Capítulo 1: Origen de la evaluación docente y su conexión con las políticas públicas en educación. En J. Manzi, J., R. González, & Y. Sun (Eds.), *La evaluación docente en Chile* (pp. 13-32). MIDE UC.

Butler, D.L., & Schnellert, L. (2012). Collaborative inquiry in teacher professional development. *Teaching and Teacher, 28*(8), 1206-1220. https://doi.org/10.1016/j.tate.2012.07.009

Carbonneau, M., & Hétu, J. (2005). La formación práctica de los maestros y el nacimiento de una inteligencia profesional. En L. Paquay, M. Altet, E. Charlier, & P. Perrenoud (Coords.), *La formación profesional del maestro. Estrategias y competencias* (107-138). Fondo de Cultura Económica.

Carrasco, A. (2013). Mecanismos performativos de la institucionalidad educativa en Chile: Pasos hacia un nuevo sujeto cultural. *Observatorio cultural, 15*, 4-10. https://bit.ly/2JIKlpy

Carrasco, A., & Fromm, G. (2016). How local market pressures shape leadership practices: evidence from Chile. *Journal of Educational Administration and History, 48*(4), 290-308. https://doi.org/10.1080/00220620.2016.1210584

Carrasco, A., Gutiérrez, G., & Flores, C. (2017). Failed regulations and school composition: selective admission practices in Chilean primary schools. *Journal of Education Policy, 32*(5), 642-672. https://doi.org/10.1080/02680939.2017.1312549

Carvalho, M.L., & Normand, R. (2018). Introduction. In R. Normand, M. Liu, L. Carvalho, D. Andrade, & L. Levasseur (Eds.), *Education Policies and the Restructuring of the Educational Profession, Global and Comparative Perspectives* (pp. 1-12). Springer.

Cavieres, E., & Apple, M. (2016). La ley docente y la clase media: Controlando el desarrollo de los profesores chilenos. *Cadernos CEDES, 36*(100), 265-280. https://dx.doi.org/10.1590/cc0101-32622016171391

Chan, W. (2010). A Review of Education Reform-New Senior Secondary (NSS) Education in Hong Kong. *International Education Studies, 3*(4), 26-35. https://doi.org/10.5539/ies.v3n4p26

Coll, C. (2016). La personalización del aprendizaje escolar. El qué, el por qué y el cómo de un reto insoslayable. En J. Vilalta (Dir.), *Reptes de l'educació a Catalunya. Anuari d'Educació 2015* (pp. 43-104). Fundació Jaume Bofill.

Cornejo, R., Albornoz, N., Castañeda, L., Palacios, D. Etcheberrigaray, G., Fernández, R., Gómez, S., Hidalgo, F., & Lagos, J.I. (2015). Las prescripciones del trabajo docente en el nuevo marco regulatorio de políticas educativas en Chile. *Psicoperspectivas, 14*(2), 72-83. http://dx.doi.org/10.5027/PSICOPERSPECTIVAS-VOL14-ISSUE2-FULLTEXT-580

Darling-Hammond, L. (2014). *Standards, assessments and educational policy: pursuit of genuine accountability.* Educational Testing Service.

Falabella, A. (2015). El mercado escolar en Chile y el surgimiento de la Nueva Gestión Pública: el tejido de la política entre la dictadura neoliberal y los gobiernos de la centroizquierda (1979 a 2009). *Educação & Sociedade, 36*(132), 699-722. http://dx.doi.org/10.1590/ES0101-73302015152420

Fardella, C. (2013). Resistencias cotidianas en torno a la institucionalización del modelo neoliberal en

las políticas educacionales: El caso de la docencia en Chile. *Psicoperspectivas*, *12*(2), 83-92. http://dx.doi.org/10.5027/psicoperspectivas-Vol12-Issue2-fulltext-294

Fernández, R., Albornoz, N., Cornejo, R., & Etcheberrigaray, G. (2016). Los discursos sobre autonomía del trabajo docente en el nuevo marco regulatorio educativo chileno. *Currículo sem Fronteiras, 16*(2), 283-302. https://bit.ly/33CcO7u

Fundación Chile (2013). Análisis de la implementación de los programas de integración escolar (PIE) en establecimientos que han incorporado estudiantes con necesidades educativas especiales transitorias (NEET). https://bit.ly/33CcV2U

Gleeson, D., & Knights, D. (2015). Challenging dualism: Public professionalism in 'troubled' times. *Sociology*, *2*(40), 277-295. https://doi.org/10.1177%2F0038038506062033

Hall, D., Grimaldi, E., Gunter, H., Møller, J., Serpieri, R., & Skedsmo, G. (2015). Educational reform and modernisation in Europe: The role of national contexts in mediating the new public management. *European Educational Research Journal*, *14*(6), 487-507. https://doi.org/10.1177/1474904115615357

Herr, K. (2015). Cultivating disruptive subjectivities: Interrupting the new professionalism. *Education Policy Analysis Archives, 23*(86). http://dx.doi.org/10.14507/epaa.v23.2097

Holloway, J., Sørensen, T.B., & Verger, A. (2017). Global perspectives on high-stakes teacher accountability policies: An introduction. *Education Policy Analysis Archives, 25*(85). http://dx.doi.org/10.14507/epaa.25.3325

Internacional de la Educación para América Latina (2015). *La estandarización de la evaluación. Las pruebas nacionales e internacionales ¿medición o evaluación?* Utdannings Forbundet/ Internacional de la Educación para América Latina.

Ley N° 20.529. Sistema Nacional de Aseguramiento de la Calidad de la Educación Parvularia, Básica y Media y su Fiscalización. Diario Oficial de la República de Chile, Santiago, Chile, 27 de agosto de 2011.

Maroy, C., & Pons, X. (2019). *Accountability Policies in Education. A Comparative and Multilevel Analysis in France and Quebec*. Springer.

Maroy, C., Pons, X., & Dupuy, C. (2016). Vernacular globalisations: neo-statist accountability policies in France and Quebec education. *Journal of Education Policy*, *32*(1), 100-122. https://doi.org/10.1080/02680939.2016.1239841

Meyer, A., Rose, D.H., & Gordon, D. (2014). *Universal Design for Learning: Theory and Practice*. CAST.

Mintzberg, H. (1980). Structure in 5's: A synthesis of the research on organization design. *Management Science, 26*(3), 322-341. https://doi.org/10.1287/mnsc.26.3.322

Mintzberg, H. (1984). *La estructuración de las organizaciones*. Ariel Economía.

Mintzberg, H. (1992). *El poder en la organización*. Ariel Economía.

Mintzberg, H. (1993). *El proceso estratégico. Conceptos, contextos y casos*. Prentice-Hall Hispanoamericana.

Montecinos, C., Ahumada, L., Galdames, S., Campos, F., & Leiva, M.V. (2015). Targets, threats and (dis)trust: The managerial troika for public school principals in Chile. *Education Policy Analysis Archives, 23*(87). http://dx.doi.org/10.14507/epaa.v23.2083

Luengo-Navas, J., & Saura-Casanova, G. (2013). La performatividad en la educación. La construcción del nuevo docente y el nuevo gestor performativo. *REICE-Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 11*(3), 139-153. https://bit.ly/2I1epvQ

Normand, R., Liu, M., Carvalho, L.M., Andrade, D., & LeVasseur, L. (2018). *Education Policies and the Restructuring of the Educational Profession. Global and Comparative Perspectives*. Springer.

Organización para la Cooperación y el Desarrollo Económicos (OCDE) (2017). *Evaluaciones de políticas nacionales de educación. Educación en Chile*. OCDE, Fundación SM.

Oyarzún, C., Soto, R., & Moreno, K. (2019). Tensiones del trabajo docente en un contexto gerencialista: una revisión de literatura sobre el caso chileno. *Educação (UFSM), 44*(1). http://dx.doi.org/10.5902/1984644434888

Parcerisa, L., & Falabella, A. (2017). La consolidación del Estado evaluador a través de políticas de rendición de cuentas: Trayectoria, producción y tensiones en el sistema educativo chileno. *Education Policy Analysis Archives, 25*(89). http://dx.doi.org/10.14507/epaa.25.3177

Philpott, C. (2018). Teacher agency and professional learning communities: what can learning rounds in Scotland teach us? In M. Peters, B. Cowie, & I. Menter (Eds.), *A companion to research in teacher education* (pp. 269-282). Springer.

Pino, M., Oyarzún, G., & Salinas, I. (2016). Crítica a la estandarización para la rendición de cuentas: narrativas de resistencia para transformar el sistema de evaluación en Chile. *Cadernos Cedes, 36*(100), 337-354. https://doi.org/10.1590/cc0101-32622016171362

Pucheu, A. (2013). *Lo que cambia son las personas*. RIL Editores.

Reyes, I., & Akkari, A. (2017). La privatización de la educación en Chile: análisis de los discursos del profesorado y de la dirección de los centros sobre la calidad de la educación y la rendición de cuentas. *RASE, Revista de Sociología de la Educación, 10*(3), 363-380. http://dx.doi.org/10.7203/RASE.10.3.9891

Rojas, M.T., & Leyton, D. (2014). La nueva subjetividad docente: Construcción de subjetividades docentes en los inicios de la implementación de la Subvención Escolar Preferencial en Chile. Estudios pedagógicos, *40* (número especial), 205-221. http://dx.doi.org/10.4067/S0718-07052014000200012

Rosas, R., & Santa Cruz, C. (2013). *Dime en qué colegio estudiaste y te diré qué CI tienes. Radiografía al desigual acceso al capital cognitivo en Chile.* Ediciones UC.

Ruffinelli, A. (2016). Ley de desarrollo profesional docente en Chile: de la precarización sistemática a los logros, avances y desafíos pendientes para la profesionalización. *Estudios Pedagógicos, 42*(4), 261-279. https://dx.doi.org/10.4067/S0718-07052016000500015

Schmidt, T. (2006). *A review of structure in fives: Designing effective organizations*. https://bit.ly/3onM4j7

Sisto, V. (2012). Identidades desafiadas: individualización, managerialismo y trabajo docente en el Chile actual. *PSYKHE, 21*(2), 35-46. http://dx.doi.org/10.7764/psykhe.21.2.542

Taut, S., & Sun, Y. (2014). The Development and Implementation of a National, Standards-based, Multi-method Teacher Performance Assessment System in Chile. *Education Policy Analysis Archives, 22*(71). http://dx.doi.org/10.14507/epaa.v22n71.2014

Tsang, K.K., & Kwong, T.L. (2016). Teachers' emotions in the context of education reform: labor process theory and social constructionism. *British Journal of Sociology of Education*, *38*(6), 841-855. https://doi.org/10.1080/01425692.2016.1182007

Verger, A., & Normand, R. (2015). Nueva gestión pública y educación: Elementos teóricos y conceptuales para el estudio de un modelo de reforma educativa global. *Educaçao & Sociedade, 36*(132), 599-622. http://dx.doi.org/10.1590/ES0101-73302015152799

Verger, A., Zancajo, A., & Fontdevila, C. (2016). La economía política de la privatización educativa: políticas, tendencias y trayectorias desde una perspectiva. *Revista Colombiana de Educación*, (70), 47-78. https://doi.org/10.17227/01203916.70rce47.78

Verger, A., Moschetti, M., & Fontdevila, C. (2017). *La privatización educativa en América Latina: Una cartografía de políticas, tendencias y trayectorias.* Education International. https://doi.org/10.13140/RG.2.2.16049.58724

Vieira, L., & Oliveira, T. (2013). As condições do trabalho docente na Educação Infantil no Brasil: alguns resultados de pesquisa (2002-2012). *Revista Educação em Questão, 46*(32), 131-154. https://doi.org/10.21680/1981-1802.2013v46n32ID5125

Weinstein, J., Marfán, J., Horn, A., & Muñoz, G. (2016). Chile: School leadership challenged by double accountability towards schools. In J. Easley II, & P. Tulowitzki (Eds.), *Educational Accountability. International perspectives on challenges and possibilities* (pp. 54-72). Routledge.

Inclusive training of elementary teachers in three Chilean regions

Formación inclusiva del profesorado de primaria en tres regiones chilenas

Mauricio Andrés Valdés-Pino is coursing a PhD at USAL (Spain) (mauriciovaldes@usal.es)
(https://orcid.org/0000-0002-2311-9392)

Dra. María Isabel Calvo-Álvarez is a profesor and researcher at USAL (Spain) (isabelc@usal.es)
(https://orcid.org/0000-0001-9071-2711)

Dr. Fernando Martínez-Abad is a profesor and researcher at USAL (Spain) (fma@usal.es)
(https://orcid.org/0000-0002-1783-8198)

Abstract

The initial training of elementary teacher in Chile has been a topic that has been under discussion for many years, however, it has not been adjusted to the requirements of the latest legislation implemented to address an inclusive education (inclusion law Decree No. 83 and updates to Decree No. 170), as well as not being adjusted to the needs and requirements of those who are at the forefront in each classroom with their students. This article aims to analyze and identify the training needs for inclusion of graduate teachers between 2008 and 2018. A questionnaire prepared ad hoc, with a descriptive design (n = 118) was applied to teachers. The results indicate the theoretical and methodological training needs, with a predominance in the methodological aspects that allow teachers to work with various strategic designs that promote self-learning or collaborative work, implement curricular adaptations required by decree 83, generate individual educational plans , that allow to focus learning on the person, know the importance of virtual spaces to promote inclusive education and highlight the importance of human resources (psycho-pedagogue, psychologist, differential educator or others), to facilitate work with students with SEN Therefore, this research will allow training institutions to adapt their training to these needs and generate initial and ongoing training projects for teachers in Chile.

Keywords: Education and training, teacher training, special education, primary teacher training, advanced training, basic training.

Resumen

La formación inicial del docente de Educación General Básica (EGB) en Chile ha sido un tema que viene en discusión hace muchos años, sin embargo, no se ha ajustado a los requerimientos de las últimas legislaciones implementadas para abordar una educación inclusiva (Ley de inclusión, Decreto N°83 y actualizaciones del Decreto N° 170), así como tampoco se ha ajustado a las necesidades y requerimientos de quienes están al frente en cada aula junto a sus estudiantes. Este artículo pretende analizar e identificar las necesidades formativas en inclusión de los docentes egresados entre 2008 y 2018. Se aplicó un cuestionario elaborado ad hoc, con un diseño descriptivo (n=118) al profesorado. Los resultados señalan las necesidades formativas teóricas y metodológicas, con una predominancia en los aspectos metodológicos que permitan a los docentes trabajar con diversos diseños estratégicos que promuevan el auto-aprendizaje o trabajo colaborativo, implementar adaptaciones curriculares requeridas por el Decreto 83, generar planes educativos individuales, que permitan centrar el aprendizaje en la persona, conocer la importancia de los espacios virtuales para promover la educación inclusiva y resaltar la importancia de los recursos humanos (psicopedagoga, psicólogo, educadora diferencial u otros), para facilitar el trabajo con estudiantes con Necesidades Educativas Especiales (NEE). Por lo tanto, esta investigación permitirá que las instituciones formadoras adecúen su formación a estas necesidades y generen proyectos de formación inicial y continua los docentes en Chile.

Descriptores: Enseñanza y formación, formación de docente, educación especial, formación de docentes de primaria, perfeccionamiento, formación básica.

1. Introduction

The objective of this article is to know the training needs of Elementary graduate teachers in the context of the inclusion law in Chile. In addition, it intends to analyze the differences in the following variables: Gender, type of needs, training received, city of labor performance and age; to this end, an online questionnaire has been created.

In recent years, Chile has sought initial training aimed at a comprehensive development of students, through a number of legal provisions and initiatives such as the initial training standards, the "INICIA" test and the Teaching Career Law.

The initial training will be evaluated based on the teachers' responses to the questionnaire that was created with two dimensions: Theoretical and methodological.

The basic standard in teacher quality training in Chile arises from the CPEIP (Center for Advanced Experimentation and Pedagogical Research), which establishes minimum guidelines for all Chilean universities and/or CFP (Centers for Vocational Training). These principles are established to address the law on quality and equity in education, which dates back to 2011.

According to Ruffinelli (2013) and San Martín (2014), "INICIA" test (2008) evaluates three competences: Pedagogical knowledge, knowledge of discipline and didactic and pedagogical reflection, with the aim of analyzing whether the initial training has an effect on the performance of the students in some measurements, such as in the SIMCE (System of Measurement of the Education Quality).

Martinic et al. (2014) show the low coherence between the initial training of Elementary teachers and the practice of their professional development. The Organization for Economic Cooperation and Development-OECD (2013) notes that the effectiveness of the teacher is one of the important variables for a phenomenon that is multicausal, since it manages to determine that there is a consistent but moderate effect of

the teacher effect and the performance of students. For its part, Arnaiz (2005) adds that:

> What is really important is that teachers change their thoughts and attitudes into new approaches of solidarity, tolerance and new educational practices that bring with them a new way of dealing with the plurality and multiculturalism of students. (p. 17)

In view of the above, Lee and Shute (2010) and Martinez (2016) demonstrate that the moderate effect of the teacher on census tests, such as SIMCE, has greater significance in mathematics and it is less consistent in language.

Ainscow (1991), Echeita (2013), Florian (2010), Infante (2010) and López et al. (2014) note that there are aspects to be developed in the initial or continuing training of teachers, such as the need to work on concepts such as integration and inclusion, identify and assess the characteristics of the inclusive model and models of attention to diversity in principles, characteristics and focus of attention.

In regards to the methodological aspects and in order to respond to the needs of students and/or diverse and inclusive classroom, it should be initiated by recognizing and identifying different learning styles (Carbonero et al., 2010; Bahamón et al., 2012) or individual differences (Pegalajar & Colmenero, 2017; Vadillo, 2014), learning potential (Moreno & López de Maturana, 2015; Tébar, 2010), participation for inclusion (Calvo et al., 2016), collaborative and interdisciplinary learning (Durán & Climent, 2017; García-Valcárcel et al., 2014; Jiménez, 2014; Marín et al., 2014; Muñoz et al., 2014; Vargas et al., 2017).

In short, if we prove that initial or continuing teacher training is a difficulty and can end up becoming a barrier to an education that meets inclusion, it is relevant to mention that barriers to education should be analyzed, since they do not allow giving a real and accurate response to students with special educational needs (SEN), whether from the methodological or theoretical aspect.

Therefore, ensuring quality in education means to provide the necessary support to eliminate any discrimination and the approach to diversity. This in turn requires distinguishing barriers or access according to their type and condition (Echeita, 2013).

The Inclusion Act (No. 20.845) refers to barriers or supports to all supports provided to students by an educator who, for some reason, has a SEN, and in some cases prevent the achievement of the learning objectives. Therefore, initial training is essential to improve teachers' tools and thus to address these barriers in achieving genuine inclusion.

Cisternas and Lobos (2019) identify in their research the situations that hinder attention to diversity:

> All new teachers argue that they were inserted into schools where regulations and institutional definitions impose barriers to the practices they would like to develop. Three obstacles stand out: a) competition between students and their classification and ranking according to the performance, b) there is pressure to achieve curricular coverage, although the cost is lack of deepening, and c) the tendency to standardize teaching and/or evaluation strategies. (p. 46)

Arnaiz (2005), Granada et al. (2013), Meckes and Hurtado (2014) and Ruffinelli (2013) argue that training for diversity care is essential, as 92% of Pedagogical students say that regular education teachers do not have the necessary training to attend students with SEN.

When analyzing the curricular programs of some universities of Elementary teachers in Chile, it is observed that there are few subjects focused on the attention to diversity, inclusion and/or SEN. Sotomayor et al. (2011) conducted exploratory research on the initial training of Elementary teachers in Chile, although it is part of the discipline of language and communication, and the findings mention the importance of knowing the content in learning difficulties or SEN.

Carter (2015) recommends the "keep pace with the curriculum" (p. 24), noting that some formation factors of high-quality initial education are due to training or lack of it in SEN and disabilities.

Likewise, continuing education programs of teachers need to be reviewed. Conde and Martín (2016) point out that the teacher has two fundamental moments during his/her working life: The first one focused on teaching, this one occurs when the teacher is a beginner; and the second one of the expert professor, who concentrates his/her task on learning. In both cases there is the need of training.

In relation to other quality indicators in initial teacher training, Ruffinelli (2013) said that the admission to the professional career, PSU (University Selection Test) whether it is a university or a CFP does not generate significant differences in its results if the teacher has had continuous or permanent training. However, a greater effect on the results is observed according to the socioeconomic level of the student, i.e. the higher the level of precariousness of the students the greater the effect of the teacher.

Hence, knowing that one of the determining factors for good educational quality is initial and ongoing training for teachers, it is necessary to ask what should be done to improve it? How can teachers have the right tools for students to achieve the levels required by the plans and programs of the Ministry of Education?

2. Method

This research aims to analyze and identify whether the training of teachers of the Elementary Education career from public or private institutions in three regions of Chile (Valparaíso, Santiago and Concepción) in the last ten years allows to respond to the legal provisions provided by the Ministry of Education.

2.1. Design

A cross-sectional, non-experimental descriptive design was used with information collection through questionnaires. The aim is to identify the theoretical and methodological needs of teachers in Chile to address the legal provisions of the Ministry of Education in the classroom in the context of the Inclusion Law. This exploratory method is used to "be familiar with relatively unknown phenomena" (Sampieri et al., 2010, p. 79), and then contrast it with a real situation and try to improve it.

2.2. Participants

The study population was made up of teachers who graduated in the last ten years (2008-2018), obtaining a final sample of 118 teachers. The selection was made by non-probabilistic causal sampling since a sample was directly extracted for accessibility or availability to participate in the sample (Latorre et al., 2003).

From the sample obtained, 77.2% were women and 22.8% were men, 41.6% lived in Santiago (Metropolitan region and the capital of the country), 28.7% in Valparaiso and 29.7% in Concepción (Biobío region). 56.8% were teachers under 34 years old, 30.5% were teachers between 35 and 50, and 12.7% were teachers over 50 years old. 69.5% only had university studies and 30.5% had postgraduate studies. Finally, 60.2% worked with students with transitory SEN, 5.1% worked with students with permanent SEN, and 34.7% worked with students with temporary and permanent SEN.

2.3. Instrument

A self-made Likert scale was used as an instrument for the study in order to identify the needs of Elementary teachers in their initial training with regard to theoretical and methodological elements in the context of the inclusion law. The answers range from 1 to 4, 1 being "does not know" and 4 "knows a lot" in regards to the theoretical dimension, and in relation to the methodological dimension answers also range from 1 to 4, being 1 "little knowledge" and 4 "a lot of knowledge".

The following criteria were used for designing the items: relevance, as each item sought to assess the knowledge level of theoretical and methodological aspects of teachers; clarity, as each item was presented in a language easy to be understood by the respondents; accuracy, since each item evaluated the construct. The instrument was composed of 33 items in two dimensions: The first related to the theoretical knowledge and the second to the methodological knowledge of teachers in the context of inclusive education. Once the scale was constructed, content validation was carried out by seven experts from the university training area of the Elementary Education career of public or private universities. Once the theoretical validation was carried out, the instrument was developed in two variables, one of nine items corresponding to the theoretical dimension and another of 24 items corresponding to the methodological dimension. The level of agreement calculated using Aiken´s V was 0.84 for the theoretical dimension and 0.90 for the methodological dimension, which are acceptable values exceeding the threshold established which is 0.75 (Charter, 2003; Penfield & Giacobbi, 2004). For the validation of the dimensionality scale, an EFA (Exploratory Factor Analysis) was applied. Bartlett's sphericity test and KMO (Kaiser-Meyer-Olkin) index reached adequate levels, indicating the relevance of the EFA. Given these results, a major component extract was performed, using Kaiser's criteria. The factorial structure of the results agreed with the theoretical structure of the instrument (all the items contributed to factorial charges greater than 0.4 in the corresponding theoretical dimension), reaching a variance of 55.9% in the first dimension and 64.8% in the second dimension. It should be noted that in the Social Sciences values of extracted variance higher than 50% are

considered good (Delgado, 2014), which allows to conclude that there is a high correlation level between items and dimensions. Therefore, it was possible to extract two main dimensions: Theoretical and methodological.

The final version of the questionnaire was developed online to facilitate its application. This was done using the Google Drive form, which was provided with sociodemographic data. Informed consent and questions of the two dimensions mentioned can be reviewed at: https://bit.ly/3oPOkQr

2.4. Variables

This research considered five sociodemographic variables for the instrument analysis: Gender, educational level, residence (region), age and SENs.

2.5. Procedure

It was implemented and lasted from August to September 2018.

To process the results obtained and to make the statistical analysis, SPSS software version 25 was used, and a descriptive analysis was carried out, where the frequency distribution for the two dimensions of the questionnaire was analyzed. The frequency distribution for each of the dimensions was also analyzed, and different hypothesis were contrasted in order to compare sociodemographic groups (two or more independent groups). In each case, parametric contrast (t and ANOVA test) or non-parametric (Mann-Whitney U and Kruskal-Wallis H) were applied depending on the fulfillment of the previous assumptions of normality and homocedasticity.

3. Results

3.1. Knowledge of elementary teachers in theoretical and methodological aspects

It is noted in Table 1 that most of the teachers in the study refer that they have a high knowledge of the theoretical aspects of the legal provisions in the context of the Chilean inclusion law.

The mean obtained in the theoretical dimension was 2.9 over a maximum of 4, with a standard deviation of 0.67 points, which allows to affirm that teachers have a high knowledge in the theoretical dimension with a moderate dispersion, and in terms of the methodological dimension the data show that there is less knowledge of the teachers than the one they require to deal with the legal provisions. The average obtained from teachers is 2.73 points and a standard deviation of 0.74 points, which allows to observe that the knowledge of methodological aspects is significantly lower than that of the theoretical dimension, with a greater dispersion.

Table 1. Theoretical and methodological dimension statistics

Dimension	N	Mean	P_{25}	Mdn.	P_{75}	Sx	As.	Curt.
Theoretical	118	2.94	2.44	3.00	3.47	0.68	-0.343	-0.525
Methodological	118	2,73	2.25	2.75	3.37	0.74	-0.279	-0.635

Own elaboration.

It is noted that a significant number of teachers referred to have a high knowledge level of the theoretical dimension in terms of inclusive education. However, the greatest weakness is seen in the first item with 33.9% of teachers who claimed not knowing some authors in the inclusion topic.

On the other hand, their high theoretical knowledge is observed in questions 2, 3 and 9 with 28.8 %, 36.4 % and 62.7 % respectively, as can be seen in Table 2. In this regard, it is surprising that most of teachers refer a clear distinction between integration and inclusion, concepts that have long coexisted in the Chilean education (Casassus, 2002; López et al., 2014; Soto, 2004).

In the methodological dimension, it is observed in Table 2 that the questions presenting the main difficulties are item 15 with 72.1% of the sample that indicates "little knowledge" or closer to "little" and that relates to aspects of virtual spaces that favor inclusive education; question 3 is also highlighted, in which 38.2% of the sample stated that they have "little knowledge" or closer to it in terms of working with different learning styles; item 5, where 38.2% identified the complexity levels of a content, adapting to the learning potential in inclusive education; item 8, where 45.8% realize that they are closer to having "little knowledge" to design a class that considers self-learning or collaborative work to address inclusive education in their classroom; and item 14, where 51.7% of the sample indi-

cated to be closer to "little knowledge" in relation to the curricular adaptation or to make an individual educational plan that allows to support students with SEN.

In this dimension, a sub-dimension of methodological aspects in the context of the inclusion law in Chile, associated with evaluative aspects, is analyzed separately. In this sub-dimension three questions appear with a percentage that is more associated with having "little knowledge" or close to it in the university formation, especially in evaluation aspects associated with inclusive education.

Item 21 shows that 53.4% did not have a training that would allow them to keep track of each of their students' achievements. In item 22, 39.9% of teachers stated that they did not receive any tools in their formation to manage various evaluation strategies to measure the expected learning of their students; and in item 23, 39.4% of the professors stated that they do not recognize the feedback methodology as a way of adjusting, proposing and agreeing on improvements to the learning of the students.

Table 2. Descriptive analysis by frequency of the theoretical and methodological dimension

Ítem	1 (%)	2 (%)	3 (%)	4 (%)	Media	Sx
T1	33.9	27.1	27.1	11.9	2.16	1.03
T2	5.9	26.3	26.3	28.8	2.90	0.88
T3	5.9	24.6	33.1	36.4	3.00	0.92
T4	7.6	28.8	34.7	28.8	2.84	0.93
T5	10.2	18.6	37.3	33.9	2.94	0.96
T6	5.1	19.5	39.0	36.4	3.06	0.87
T7	11.9	16.1	39.0	33.1	2.93	0.98
T8	2.5	16.1	43.2	38.1	3.16	0.78
T9	2.5	11.0	23.7	62.7	3.46	0.79
M1	14.4	11.9	39.0	34.7	2.94	1.02
M2	4.2	25.4	37.3	33.1	2.99	0.87

Ítem	1 (%)	2 (%)	3 (%)	4 (%)	Media	Sx
M3	6.8	31.4	37.3	24.6	2.72	0.95
M4	9.3	24.6	38.1	28.0	2.84	0.93
M5	6.8	31.4	37.3	24.6	2.79	0.89
M6	5.1	20.3	40.7	33.9	3.03	0.86
M7	5.9	28.0	45.8	20.3	2.80	0.82
M8	11.9	33.9	31.4	22.9	2.65	0.96
M9	9.3	25.4	39.8	25.4	2.81	0.92
M10	15.3	34.7	30.5	19.5	2.54	0.97
M11	9.3	30.5	39.0	21.2	2.72	0.90
M12	11.0	26.3	41.5	21.2	2.72	0.92
M13	22.0	28.0	39.0	11.0	2.38	0.95
M14	17.8	33.9	29.7	18.6	2.49	0.99
M15	33.1	39.0	14.4	13.6	2.08	1.00
M16	9.3	28.0	43.2	19.5	2.72	0.88
M17	5.1	25.4	40.7	28.8	2.93	0.86
M18	8.5	22.0	41.5	28.0	2.88	0.91
M19	5.1	19.5	39.0	36.4	3.06	0.87
M20	12.7	22.9	28.8	35.6	2.87	1.04
ME21	11.9	41.5	33.1	13.6	2.48	0.87
ME22	9.3	31.4	39.8	19.5	2.69	0.89
ME23	8.5	31.4	33.1	27.1	2.78	0.94
ME24	11.9	25.4	40.7	22.0	2.72	0.93

Own elaboration.

3.2. Differences by groups according to sociodemographic variables

Analyzing gender differences in the dimensions using T Student parametric test for independent groups, it was observed that in the theoretical dimension, although the mean score of men is slightly lower than that of women, there are no significant differences. However, there are significant differences in gender in the methodological dimension. Specifically, women achieve higher scores than men (Table 3).

Table 3. T Student of gender in the theoretical and methodological dimension

Gender	Theoretical dimension		Methodological dimension	
	Mean (Sx)	t (p.)	Mean (Sx)	t (p.)
Male	2,44 (0.65)	-1.15 (.25)	2,44 (0.66)	-1.15 (.015)
Female	2.59 (0.62)		2.83 (0.75)	

Own elaboration.

According to the educational level (university or master), when comparing the scores in the dimensions and applying the T Student parametric test for independent variables, it was observed that although the difference in means is slightly favorable to teachers with a master's degree, there are no significant differences at the population level. With regard to the methodological dimension, it could be seen that there are no significant differences, as shown in Table 4.

Table 4. T Student educational level in the theoretical and methodological dimension

Educational level	Theoretical dimension		Methodological dimension	
	Mean (Sx)	t (p.)	Mean (Sx)	t (p.)
University	2.48 (0.64)	-1.89 (.62)	2.80 (0.78)	1.48 (.14)
Master	2.71 (0.57)		2.58 (0.65)	

Own elaboration.

As for differences in the dimensions according to the region, the one-way ANOVA test is applied to contrast them. It is observed that there are no significant differences in the knowledge the sample has with regard to the place of residence (Valparaíso, Santiago or Concepción) of Elementary teachers for both dimensions (Table 5).

Table 5. ANOVA Residency of the theoretical dimension

City	Theoretical dimension		Methodological dimension	
	Mean (Sx)	F (p.)	Mean (Sx)	F (p.)
Valparaíso	2.70 (0.57)	3.05 (.51)	2.85 (0.71)	1.84 (.16)
Santiago	2.38 (0.63)		2.81 (0.69)	
Concepción	2.63 (0.64)		2.56 (0.81)	

Own elaboration.

With regard to age, applying the one-way ANOVA test showed that there are significant differences in participants' knowledge in the methodological dimension and not in the theoretical dimension. In particular, when applying the post-hoc test (Scheffé procedure) it is observed that the first two stages, i.e., teachers between 0-34 and between 35-49 years, have significant differences in the methodological knowledge in the context of the inclusion law in Chile, which is favorable to 0-34-year-old teachers. When applying the same ANOVA for a sample, it could be observed that there is no difference in teachers in terms of the type of SEN they work with, both for the theoretical and methodological dimension (Table 6)

Table 6. ANOVA age and SEN of participants in the theoretical and methodological dimension

Edad	Theoretical dimension		Methodological dimension	
	Mean (Sx)	F (p.)	Mean (Sx)	F (p.)
0-34 years old	2.52 (0.62)		2.89 (0.69)	
35-49 years old	2.58 (0.68)	0.42 (.66)	2.43 (0.81)	4.77 (.010)
≥50 years old	2.68 (0.51)		2.75 (0.65)	
SEN				
Transients	2.47 (0.63)		2.75 (0.75)	
Permanent	2.70 (0.93)	1.90 (.15)	2.54 (0.66)	0.23 (.80)
Transitory an permanent	2.70 (0.56)		2.74 (0.76)	

Own elaboration.

4. Discussion

It is important to discuss the difference obtained in the methodological dimension according to the age variable, where higher scores are observed in the 0-34-year-old teacher group compared to the 35-49-year-old teacher; it could be assumed that younger teachers have a more positive attitude towards inclusion. Although the results among teachers over the age of 50 are not conclusive, it should be noted that the sample size of this section was small, only 15 people. Other research (Forlin & Chambers, 2011; González-Gil et al., 2016) has shown that less experienced, novice teachers have a more positive attitude to students with some type of SEN.

In the methodological dimension, it is possible to observe that there are more weaknesses in the initial formation to work with different strategic designs of a class that promote self-learning or collaborative work, a topic that has been essential for inclusive education (García-Valcárcel et al., 2014; Jiménez, 2014; Marín et al., 2014; Muñoz et al., 2014; Ortiz & Gastelú, 2016; Vargas et al., 2017; Puighelivol et al., 2019).

Teachers declare that they have not obtained information of inclusive education in their initial formation and/or continuous preparation in the promotion of collaborative networks, which is a studied and demonstrated aspect that has a high impact on inclusive education (Puighellivol et al., 2019; Ainscow et al.,

2004; García-Valcárcel et al., 2014; Madrazo et al., 2018; Nel et al., 2014; Vargas et al., 2017).

The lack of initial or continuing training has hindered the ability to implement curricular adaptations required by Decree 83 or to generate individual educational plans, which allow to focus the learning process on the person as a measure (habitual or extreme) to support students with SEN. González-Gil et al. (2019) agree that the main barrier is the lack of training, since the one they receive is theoretical and is not consistent with the teaching practice.

When discussing the importance of inclusive education, it is important to know virtual spaces that promote it. Sotomayor et al. (2011) and mainly (Puigdellithol et al. (2019) point out that digitization in education is an opportunity for education and especially for students with SEN, as "digital tools can help the educational environment in different fields, and specifically can respond by guaranteeing diversity" (p. 667).

In short, teachers believe they did not learn the importance of human resources (psychopedagogy, psychologist, differential educator or others) in their training as facilitating agents in working with students with SEN. In this regard, Torres-Santomé (2019) pointed to the importance of working with the support of others — teachers and specialists — for a better intervention of every school reality. Puigdellithol et al. (2019) refer to the benefits of a specialist's eyes, since this allows a more comprehensive

diagnosis and the possible needs that the student might have in his or her learning.

5. Conclusions

The study data show that future teachers acquire, throughout the initial training, a complete and updated training that favors the inclusion and development of changes and proposals at the legislative level, at least in the theoretical aspects. However, from a methodological point of view, two significant differences observed in the analysis of the results must be highlighted; one is gender, which is produced in the knowledge of elementary teachers, where women have more domain of methodological knowledge than men. In this regard, other previous studies and research (Alonso et al., 2012; Chiner, 2011; Rebolledo et al., 2011) have indicated that women have a more positive attitude toward inclusion, which means they implement more strategies for students to achieve their learning objectives.

In contrast to these results, González-Gil et al. (2016) indicate that there are no gender differences in educational practices, noting only differences in inclusive policies which seem to be better integrated by men, but the results allow to propose a review of the programs in the initial training to be adapted to the requirements/demands/needs of the teachers to respond to the needs of the school context.

Another conclusive point is the lack of articulation between the institutions and the requirements of pedagogical practice, at least from a methodological point of view, since educative institutions must be constantly improving their quality to ensure the vocational training of their students. In this sense, the results obtained in this work agree with those indicated by Carter (2015), which refer to the need to address the individuality of students with SEN, as noted in the introduction, and which gives an account of the so-called "keep pace with the curriculum" (p. 24).

In short, among the contributions of this work, it is possible to consider the importance of the initial and continuing education of teachers, which is a responsibility that must be assumed by the educative centers and the State, as well as by the educational communities when generating their training programs (Cisternas & Lobos, 2019; Contreras & Villalobos, 2010; Lozano, 2016).

6. Limitations and prospective

This article presents generalization as a limitation, since although the study is based on the three most populated regions of Chile, it is possible that there are training experiences in less populated regions of the country and that were not considered in the research. Nor is it possible to generalize the results obtained in this research to other Latin American countries, given the diversity of teaching training in the region.

Finally, at the prospective level, this study opens new lines of research associated with the teaching practice, the role of tutors and the importance of training future teachers as well as preparing them. It can be complemented by a qualitative study that allows to contrast the opinion of the trainers, beyond the perception of those who are in exercise and the revision of the curricular programs in order to improve education and achieve an inclusive education for all.

References

Ainscow, M. (1991). Effective schools for all: An alternative approach to special needs in education. *Cambridge Journal of Education, 21*(3), 293-308.
https://doi.org/10.1080/0305764910210304

Ainscow, M., Booth, T., & Dyson, A. (2004). Understanding and developing inclusive practices in schools: A collaborative action research network. *International Journal of inclusive education, 8*(2), 125-139.
https://doi.org/10.1080/1360311032000158015

Alonso, R., Hernández, A., & Hanamboure, R. (2012). Logros y desafíos para un currículo inclusivo. *Pedagogía Universitaria, 17*(3), 61-75.

Arnáiz, P. (2005). *Atención a la diversidad. Programa curricular*. Editorial Universidad Estatal a Distancia.

Bahamón-Muñetón, M.J., Vianchá-Pinzón, M.A., Alarcón-Alarcón, L.L., & Bohórquez- Olaya, C.I. (2012). Estilos y estrategias de aprendizaje: Una revisión empírica y conceptual de los últimos diez años. *Pensamiento psicológico, 10*(1), 129-144. https://bit.ly/2RcCv85

Calvo, M.I., Verdugo, M.Á., & Amor, A.M. (2016). La participación familiar es un requisito imprescindible para una escuela inclusiva. *Revista Latinoamericana de Educación Inclusiva, 10*(1), 99-113. https://bit.ly/35qBW2H

Carbonero, M.Á., Martín-Antón, L.J., Román, J.M., & Reoyo, N. (2010). Efecto de un programa de entrenamiento al profesorado en la motivación, clima de aula y estrategias de aprendizaje de su alumnado. *Revista Iberoamericana de Psicología y Salud, 1*(2), 117-138. https://bit.ly/33jQJJW

Carter, A. (2015). *Carter review of Initial Teacher Training* (ITT) Inglaterra. https://bit.ly/2ZrUZWA

Casassus, J. (2002). Cambios paradigmáticos en educación. *Revista Brasileira de Educação, 20*, 48-59. https://bit.ly/3kcYGHL

Charter, R.A. (2003). A breakdown of reliability coefficients by test type and reliability method, and the clinical implications of low reliability. *The Journal of General Psychology, 130*(3), 290-304. https://doi.org/10.1080/00221300309601160

Chiner, E. (2011). *Las percepciones y actitudes del profesorado hacia la inclusión del alumnado con necesidades educativas especiales como indicadores del uso de prácticas educativas inclusivas en el aula* (Tesis Doctoral). Universidad de Alicante. https://bit.ly/3lZsJ61

Cisternas, L., & Lobos, A. (2019). Profesores nóveles de enseñanza básica: Dilemas, estrategias y obstáculos para abordar los desafíos de una educación inclusiva. *Revista Latinoamericana de Educación Inclusiva, 13*(1), 37-53. http://dx.doi.org/10.4067/S0718-73782019000100037 Conde-Jiménez, J., & Martín-Gutiérrez, Á. (2016). Potencialidades y necesidades de mejora en la formación de profesores noveles universitarios. *Revista Electrónica de Investigación Educativa, 18*(1), 140-152. https://bit.ly/3ifq2fD

Contreras, G., & Villalobos, A. (2010). La formación de profesores en Chile: Una mirada a la profesionalización docente. *Educación y Educadores, 13*(3), 397-417. https://bit.ly/3ipAhOw

Delgado, C. (2014). *Viajando a Ítaca por mares cuantitativos*. Amarú.

Durán, D., & Climent, G. (2017). La formación del profesorado para la educación inclusiva: Un proceso de desarrollo profesional y de mejora de los centros para atender la diversidad. *Revista Latinoamericana de Educación Inclusiva, 5*(2), 153-170. https://bit.ly/33p4kQi

Echeita, G. (2013). Inclusión y exclusión educativa: De nuevo 'Voz y Quebranto'. *REICE. Revista Electrónica Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 11*(2), 99-122. https://bit.ly/2ZpHXbW

Florian, L. (2010). Special education in the era of inclusion: The end of special education or a new beginning? *The Psychology of Education Review, 34*(2), 22-29. https://bit.ly/2DUK0xq

Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education, 39*(1), 17-32 https://doi.org/10.1080/1359866X.2010.540850

García-Valcárcel, A., Basilotta, V., & López, C. (2014). Las TIC en el aprendizaje colaborativo en el aula de Primaria y Secundaria. *Comunicar, 21*(42), 65-74. https://bit.ly/32hXaxB

González-Gil, F., Martín-Pastor, E., Poy, R., & Jenaro, C. (2016). Percepciones del profesorado sobre la inclusión: Estudio preliminar. *Revista Electrónica Interuniversitaria de Formación del Profesorado, 19*(3), 11-24. https://doi.org/10618/reifop.19.3.219321

González-Gil, F., Martín-Pastor, E., & Poy, R. (2019). Educación inclusiva: Barreras y facilitadores para su desarrollo. Análisis de la percepción del profesorado. *Revista Currículum y formación del profesorado, 23*(1), 243-263. https://doi.org/10.30827/profesorado.v23i1.9153

Granada Azcárraga, M., Pomés Correa, M.P., & Sanhueza Henríquez, S. (2013). Actitud de

los profesores hacia la inclusión educativa. *Papeles de Trabajo, 25*, 51-59. https://bit.ly/3bOOIJw

Infante, M. (2010). Desafíos a la formación docente: Inclusión educativa. *Estudios Pedagógicos (Valdivia), 36*(1), 287-297. https://bit.ly/3ijmzN2

Jiménez, A. (2014). La didáctica multigrado y las aulas rurales: Perspectivas y datos para su análisis. *Innovación educativa, 24,* 119-131. https://doi.org/10.15304/ie.24.1994

Latorre, A., Rincón, D., & Arnal, J. (2003). *Bases metodológicas de la investigación educativa.* Hurtado.

Lee, J., & Shute, V. (2010). Personal and Social-Contextual Factors in K-12 Academic Performance: An Integrative Perspective on Student Learning. *Educational Psychologist, 45*(3), 185-202. https://doi.org/10.1080/00461520.2010.493471

López, V., Julio, C., Pérez, M., Morales, M., & Rojas, C. (2014). Barreras culturales para la inclusión: Políticas y prácticas de integración en Chile. *Revista de Educación, 363*, 256-281. https://doi.org/10-4438/1988-592X-RE-2012-363-180

Lozano, A. (2016). Las trayectorias formativas de los formadores de docentes en México. *Actualidades Investigativas en Educación, 16*(1), 136-161. https://doi.org/10.15517/aie.v16i1.22671

Madrazo, A., Juarros, I., & Loroño, M. (2018). Funcionamiento democrático y ABP: Factores determinantes para la inclusión y el rendimiento del alumnado. *Revista Electrónica de Investigación Educativa, 20*(2), 103-112.

Marín V., Negre, F., & Pérez, A. (2014). Construction of the foundations of the PLE and PLN for collaborative learning. *Comunicar: Revista Científica de Comunicación y Educación, 21*(42), 35-43. https://doi.org/10.3916/C42-2014-03

Martínez, F. (2016). *La evaluación de docentes de educación básica.* INEE. https://bit.ly/2RfsuXF

Martinic, S., Moreno, R., Müller, M., Pimentel, F., & Rittershaussen, S. (2014). Análisis comparativo del componente de práctica en el currículo de formación profesional de médicos y profesores en la Pontificia Universidad Católica de Chile. *Estudios pedagógicos, 40*(1), 179-196. https://bit.ly/32hrJni

Meckes, L., & Hurtado, C. (2014). Los nuevos profesores en Chile: ¿Quién los contrata, qué aprenden y cuán efectivos son? *Notas de Educación, 16.* https://bit.ly/3k5hXuv

Moreno, A., & López de Maturana, L. (2015). Ambientes educativos escolares: Una investigación sobre la propensión a aprender en jardines infantiles chilenos. *Estudios pedagógicos (Valdivia), 41*(Especial), 169-180. http://dx.doi.org/10.4067/S0718-07052015000300011.

Muñoz, J., Serrano, R., & Marín, V. (2014). El aprendizaje colaborativo y su desarrollo a través de mapas mentales. Una innovación educativa en la formación inicial docente. *Educatio Siglo XXI, 32*(2), 193-212. https://bit.ly/3mempJ6

Nel, M., Engelbrecht, P., Nel, D., & Tlale, D. (2014). South African teachers' views of collaboration within an inclusive education system. *International Journal of Inclusive Education, 18*(9), 903-917. https://doi.org/10.1080/13603116.2013.858779

OCDE (2013). The role of financial education in financial inclusion. OCDE. https://bit.ly/3hoFjcK

Pastor, C. G. (2003). Segregación, integración e inclusión. Bordón. Revista de pedagogía, 55(1), 9-26. https://bit.ly/35v7Wmf

Pegalajar, M. & Colmenero, M. (2017). Actitudes y formación docente hacia la inclusión en educación secundaria obligatoria. *Revista Electrónica de Investigación Educativa, 19*(1), 84-97. https://doi.org/10.24320/redie.2017.19.1.765

Penfield, R., & Giacobbi, P. (2004). Applying a score conidence interval to Aiken's item content-relevance index. *Measurement in physical education and exercise science, 8*(4), 213-225. https://doi.org/10.1207/s15327841mpee0804_3

Puigdellivol, I., Petreñas, B., & Jordi, A. (2019. *Estrategias de apoyo en la escuela inclusiva: Una visión interactiva y comunitaria.* Graó.

Rebolledo, M., García, R., Piedra, J., & Vega, L. (2011). Diagnóstico de la cultura de género en educación: Actitudes del profesorado hacia la igualdad. *Revista de Educación, 355*, 521-526. https://doi.org/10-4438/1988-592X-RE-2010-355-035

Ruffinelli, A. (2013). La calidad de la formación inicial docente en Chile: La perspectiva de los profesores principiantes. *Calidad en la educación,* (39), 117-154. https://doi.org/10.31619/caledu.n39.80

Sampieri, H., Collado, F., & Lucio, B. (2010). *Metodología de la investigación.* (5. ed.). Mc Graw Hill.

San Martín, E. (2014). *¿Es la prueba INICIA una medida predictiva de efectividad docente?* FONIDE. https://bit.ly/33cj4BC

Sotomayor, C., Parodi, G., Coloma, C., Ibáñez, R., & Cavada, P. (2011). La formación inicial de docentes de Educación General Básica en Chile. ¿Qué se espera que aprendan los futuros profesores en el área de Lenguaje y Comunicación? *Pensamiento Educativo, 48*(1), 28-41. http://dx.doi.org/10.7764/PEL.48.1.2011.3

Tébar, L. (2010). La evaluación de aprendizaje y competencias en el aula. *Fides et Ratio-Revista de Difusión cultural y científica de la Universidad La Salle en Bolivia, 4*(4), 86-98. https://bit.ly/35y3Fyi

Torres-Santomé, J. (2019). Formación del profesorado y educación como proyecto político e inclusivo. *Educação & Realidade, Porto Alegre, 44*(3), e84911. http://dx.doi.org/10.1590/2175-623684911

Vadillo, R. (2014). Integración e inclusión educativa vs integración e inclusión excluyente. *Revista Mexicana de Investigación Educativa, 19*(63), 1285-1290. https://bit.ly/2FmDDTQ

Vargas, F., Sazatornil, J., & Cisternas, C. (2017). Aprendizajes, inclusión y justicia social en entornos educativos multiculturales. *Revista Electrónica de Investigación Educativa, 19*(3), 10-23. https://doi.org/10.24320/redie.2017.19.3.830

Gender Perspective in adolescents from Superior Basic Education and High School

Perspectiva de género en Educación Básica Superior y Bachillerato

Ximena Patricia Vizuete-Salazar *is a professor and researcher at Pontificia Universidad Católica del Ecuador and of the Unidad Educativa Amelia Gallegos Díaz (Ecuador) (ximena.p.vizuete.s@pucesa.edu.ec) (https://orcid.org/0000-0003-2591-4215)*

Dr. Alexander Ramón Lárez-Lárez *is a professor and researcher at Pontificia Universidad Católica del Ecuador, Universidad de Otavalo (Ecuador) (alarez@pucesa.edu.ec) (https://orcid.org/0000-0003-2763-5113)*

Abstract

Research on gender has shown that the school environment is the ideal space to eliminate stereotypes about inequality, discrimination, and violence. This is because, during this period, adolescent learn to form relations with others based on their cultural conceptions or following stereotypes learned from home or environment. Consequently, the objective of this study was to evaluate the influence gender perspective on the social interaction of adolescents in school environments, in secondary and high school education at Amelia Gallego Díaz high school. This research was carried out with a quantitative approach, non-experimental design, cross-sectional, and descriptive scope. The method employed for data collection was scale adaptation of attitudes towards gender equality aimed at students from García-Pérez et al. (2010) was implemented. This was applied to a sample of 263 students from the institution under study. When analysing the data, the results on the indicators, from gender perspective portrayed an adaptive attitude that directly affects equality and impartial treatment in the social interaction of students; this means in this high school, students have been adapting to the situations that nowadays arise. However, there is still a significant percentage of students that remain firm to the disciplines they have instilled from their family nucleus.

Keywords: Educational environment, social interaction, gender perspective, education, gender stereotypes, student adjustment

Resumen

Investigaciones sobre género han demostrado que el ambiente escolar es el espacio idóneo para eliminar estereotipos sobre desigualdad, discriminación y violencia. Esto se debe a que, es en este periodo, donde los adolescentes aprenden a relacionarse según sus concepciones culturales o siguiendo estereotipos aprendidos desde su hogar o en el entorno. Consecuentemente, el estudio tuvo como objetivo evaluar la influencia de la perspectiva de género en la interacción social del adolescente en ambientes escolares en los niveles de Educación General Básica Superior y Bachillerato en la Unidad Educativa Amelia Gallego Díaz. La investigación se fundamentó en un enfoque cuantitativo, diseño no experimental, corte transversal y alcance descriptivo. El instrumento utilizado para la recogida de datos ha sido una adaptación de la escala de actitudes hacia la igualdad de género dirigido al alumnado de García-Pérez et al. (2010), aplicado a una muestra de 263 estudiantes de la institución en estudio. Al hacer el análisis, los resultados en los indicadores de la perspectiva de género muestran una actitud adaptativa que incide directamente en un trato de igualdad y equidad en la interacción social de los estudiantes; es decir, en esta institución educativa los estudiantes se han ido adaptando a las situaciones que la actualidad les depara, sin embargo, aún queda un importante porcentaje que se mantiene firme a las enseñanzas que les han inculcado en su núcleo familiar.

Descriptores: Ambiente educacional, interacción social, perspectiva de género, educación, estereotipos de género, adaptación del estudiante.

1. Introduction

In the recent decade, different research on gender has been addressed from different fields (Benavente & Valdés, 2014, Trejo-Sirvent et al., 2015; Camarera & Saavedra, 2018). They emphasize attention to improving equality and equity; reducing inequality, discrimination and violence between men and women. Similarly, countries around the world have incorporated into their national constitutions regulations on gender equality and have aimed at implementing policies that fight inequality, exclusion and discrimination that drive women's participation in various contexts of society (United Nations Organization, 2014). Even though great progress has been made, inequalities continue to emerge in societies regarding sexist behaviors, gender roles and reproduction of stereotypes. In this regard, Duarte and García (2016) refer to the difference between sex and gender oppression as a result of biological and historical discrepancies that cannot be changed, and which are affirmed in ideologies or myths.

This approach, as Chávez-Carapia (2017) corroborates, has not yet been achieved. Many efforts have developed internationally over the years. The Fourth Beijing Conference (1995), as a government obligation and duty of undersigned members, stands out to establish a platform for implementing their policies that respect the equality of men and women. However, studies carried out by rights organizations around the world have alerted that gay, bisexual, transgender and lesbian students have been subjected to assaults in their school environment, mostly by other students, managers and violent teachers (United Nations Educational, Scientific and Cultural Organization, 2015), showing a long way to go.

The problem persists globally and Ecuador is not different. Gender in Ecuadorian society has taken relevance as a way to achieve equality rights in discriminated areas. Discrimination stigmatizes the human being as it differentiates it both physically and culturally, evidencing inequality and stereotyping. The Constitution of the Republic (2008) incorporated principles and rights to address inequality, gender-based violence and discrimination, elements that have also been mentioned in the National Plan for a Whole Life (2017-2021) and in the document issued by the Ombudsman's Office entitled "Institutional Policy for Gender Equality 2016-2019". In this regard, the latter body mentions that even though progress has been made in this area, Ecuador has a "rooted patriarchal and androcentric culture, reflected in social and institutional practices, evidence of the absence of strategies and actions that promote gender equality and non-discrimination" (p. 6).

In education, it is also imperative to eradicate discrimination through tolerance and education (Medina et al., 2015). According to Solis (2016), incorporating the gender perspective into education allows to transform the value schemes in which skills are developed from sexual and gender differences as part of the learning process. Castillo and Gamboa (2013), state that "gender equality requires an acculturation process in changing the concepts and practices that have been socially learned" (cited in Azorín, 2017, p. 46). They say that the adolescent is a key element in society, which must be formed with a gender perspective that exercises gender equality from the various social contexts.

According to the United Nations Children's Fund (UNICEF), adolescence is the time where young people learn to relate to their peers, between men and women, according to their cultural concepts or following the stereotypes learned at home or in the environment (UNICEF, 2015). It is a stage for initiating relationships with others and defining their identity: experience and knowledge. Lozano (2014), affirms that the adolescent, in the process of specifying his/her personality, expanding his/her relationships among equals or becoming part of a group, follows gender stereotypes in accordance with cultural concepts on which his /her formation is constituted, starting from elements

of his/her identity assigned by the culture. The adolescent, apart from struggling with his/her physical and emotional aspects of age, also has to face external situations such as the imposition of gender culture, which is reflected in the cloth, expressing and relating to the peers, and following patterns of behavior imposed by society.

Based on these approaches, research is of great importance in the social and educational field, because it allowed to understand and visualize the concepts of gender and stereotypes that are acting in language, behavior and other areas. For this reason, the aim is to evaluate how the gender perspective influences the social interaction of adolescents in school environments at the High School Amelia Gallegos Díaz, located in Riobamba-Ecuador. Based on the identification of gender stereotyping behaviors of adolescents, the factors affecting social development in school spaces were determined and analyzed and the incidence levels between the two dimensions were established (gender perspective and social interaction).

1.1. Gender concepts

The gender approach in adolescence as a research topic is increasing. Rodríguez et al. (2017) affirm that gender represents an intrinsic element of personality, where beliefs, lifestyle, opportunities and behavior are combined in society. Guzmán (2015) points out that there is a role of supremacy and power of men over women based on the dichotomic and structural way people build the world. The terms sex and gender are different. According to Liscano (2016), sex is the biological vision that differentiates men and women, while gender is the sociocultural dimension of people's behaviors, ways, and expressions. Guerra López (2016) mentions that gender is creating a social profile of individuals according to their nature or the sex to which they belong. These approaches make it possible to affirm that sex and gender are related, but each one fulfills a specific function; while the first one is determined by a con-

dition since the individual is born, the second one is characterized by the influence of society. Thus, in a universal way, there are concepts of the actions and roles that men and women have in the society. According to Torres (2018), these manifestations are conditioned and identified by their nature of being and doing the social sphere; from birth, male and female social and sexual representation will be predetermined, regardless of the fact that, as a mature person, he/she does not want to fulfill the task entrusted.

Similarly, Serret (2016) expresses that men and women are not biologically equal, and also because they are defined as a consequence of what they learn in their ideological, family, economic and social environment. Therefore, gender roles are based on sex, and social and behavioral norms are socially perceived as appropriate and historically generalized. Bruel et al. (2013) say that this social representation of men and women is based on the behavior of each person and the interaction between individuals. For Aguilar et al. (2013), the difference lies in their formation to exercise their role in society: men are considered independent, autonomous and empowered, while women are educated to take care of people, they are guardians.

The behavior of young people during the adolescence has special emphasis in assuming a role in society. Beltrán (2012) states that man during adolescence, in many cases, as a way of demonstrating his masculinity, has to acquire cultural practices such as to defend himself, do sport, use certain hair style, cloth, use of grotesque and insulting language, etc. At this stage of social development, attitudes and values are acquired, which help in the formation of his identity for conflict management and the regulation of aggression. According to Javaloy et al. (2016), it is a way of maintaining society through the exchange of expressions, words, gestures in which people participate with a common objective. Uranga et al. (2016), consider the relationship with other individuals, which is part of the life of human beings, in which human beliefs arise and,

through this bond, attitudes are shaped and values are created. From a similar perspective, Suárez and Vélez (2016) refer that it is a way of organizing behaviors to relate to other people and influence those from a certain perspective. Following Meza and Páez (2016), it is a reciprocal influence in which both the individual and other people interact, change, or modify the behavior.

Therefore, the educational context will give the opportunity to discern whether the education received will help the adolescent to adapt to the social environment, or whether the adolescent will have to make some changes in the behavior. During this period, ranging from childhood to adolescence, people experience different trends in relationships that lead to aggressive, assertive, and passive styles. These variations depend on the family nucleus and its composition. For Ortiz et al. (2018) coexistence allows the development of empathy in which attachment, affective reciprocity and the construction of solid moral criteria are involved.

Given that the gender perspective is turned toward people who show different circumstances, it can be understood that there is a social biodiversity, where there is a sexual difference and social representations built around it. In this sense, Solis (2016) states that:

> Gender perspective is a critical, explanatory, and alternative vision of what happens in the gender, allowing to analyze the deep and complex causes of such oppression and of the historical processes that cause and reproduce it. (pp.101-102)

2. Methodology

2.1. Design

This research is based on a quantitative approach; descriptive and cross-sectional design. The quantitative method was used to collect the information, based on numerical quantification and statistical analysis (Cabezas et al., 2018). The description made it possible to directly demonstrate reality and identify the factors that influenced the gender perspective in an educational environment. The research was cross-sectional as reality was known in a given space and time (Hernández et al., 2014).

2.2. Population and sample

The population consisted of 764 students from the Amelia Gallegos Díaz School, of whom 510 (66,75%) were female women and 254 (33,25%) were men; distributed in sections, grades, ages and sex. The sample was structured by 263 students of 8°, 9° and 10° of Elementary (between 12 and 14 years of old) and 1°, 2° and 3° of High School. According to the level of education, 40.7% were students of Elementary and 59.3% of High School. Proportional stratified random sampling was applied as the population was not homogeneous (Gamboa, 2017), and elements were selected from each subgroup. A simple random sampling by sex, grade and section was applied and the random number table was used to select each of the participants.

2.3. Instrument

A questionnaire was used to collect the information. It was adapted to gender equality from the scale of attitudes developed by García et al. (2010), and was composed of 41 closed questions, with four answer options (never, sometimes, almost always and always). Reliability was calculated using Cronbach's Alpha coefficient using SPSS statistical software version 21. The result was 0.801 (reliable).

The instrument was organized according to the indicators of the variables: gender perspective (stereotypes, discrimination, violence and sex) and social interaction (equity and equality). Items 1-9: stereotypes, addresses generalized behaviors of men and women; items 10-16: discrimination, describes various situations in which people feel excluded from their gender; items 17-22: violence, includes questions related

to aggression, disorder, infidelity; items 23-31: sex, raises situations in the conceptions of being men and being women; items 31-36: equity, includes questions about opportunities for men and women; items 37-42: equality, indicates various situations in school settings.

2.4.   Procedure

Initially, procedures were presented to the authority of the Educational District and the institution for their proper authorization, and the objectives of the investigation were communicated. Prior to the application of the instrument, parental acceptance and the willingness of the participants were obtained. The instrument was applied in the third part of the school year 2019-2020, during academic hours. Finally, the data provided by those involved were statistically analyzed.

2.5.   Data analysis

To analyze the information descriptive statistics were used such as averages, percentages, and the elaboration of tables and inferential statistics as Spearman's correlation analysis, based on the values obtained from the responses for each of the indicators, dimensions and variables.

3. Results

Table 1 presents the cut-off points used to determine the students' attitude toward gender equality (sexist, adaptive, or equal) to evaluate the gender perspective in the social interaction of adolescents in school settings, depending on the variables of the research.

Table 1. Overall results

	No items	Empirical scores		Cutpoints		
		V. Scale	Median	Sexist	Adaptive	Equal
Stereotype	9 (1-9)	From 9 to 36 points	18	≤ 18	19- 28	≥ 29
Discrimination	7 (10-16)	From 7 to 28 points	14	≤ 14	15-22	≥ 23
Violence	6 (17-22)		12	≤ 12	13-19	≥ 20
Sex	8 (23-30)	From 6 to 24 points From 8 to 32 points	16	≤ 16	17- 25	≥ 25
Equity	5 (31-35)		10	≤ 10	11-15	≥ 16
Equality	6 (36-41)	From 5 to 20 points From 6 to 24 points	12	≤ 12	13-19	≥ 20
Global scale	41 (01-41)	From 41 to 164 points	82	≤ 82	83-123	≥ 124

Source: García-Pérez et al. (2010).

According to García-Pérez et al. (2010) sexist attitudes include analyzing the competitive views between men and women, as well as unconscious actions of gender-related behaviors and social models, where men predominate over women. Adaptive behavior involves exercising

actions based on a socially appropriate behavior perspective that, even though it shows differences and inequalities, it also shows uncertainty in the assessment of some stereotypes. The egalitarian attitude assumes the existence of inequality and positively weights the behaviors of men and women from a vision with equity.

Table 3 shows the behavior of the different indicators in relation to the cut-off points set out in Table 2. In correspondence with the stereotype, an adaptive attitude can be seen in women and men. It also occurs with discrimination, violence, sex, equity and equality, where the average values for both genders express an adaptive attitude toward gender equality. The perspective of the participants in the study based on the cut-off points shows that women adopt adaptive (86,2%), egalitarian (13,3%) and sexist (0,5%) attitudes; while men manifest adaptive (85,9%) and egalitarian (14,1%) attitudes. Students' opinions are approaching levels toward adaptive attitudes (Figure 1).

Table 2. Overall results based on gender

| | Attitude Results of obtained by students based on gender | | | |
| | Mean | | D.T. | |
	H	V	H	V
Global (42 items)	110,57	110,17	10,658	11,022
Stereotypes	27,96	26,47	4,108	4,525
Discrimination	18,66	19,39	3,664	2,915
Violence	15,88	17,16	2,605	3,004
Sex	19,55	19,83	3,100	3,190
Equity	12,62	12,05	2,247	2,705
Equality	15,91	15,28	2,535	3,434

Source: own elaboration

Figure 1.Perspective of students' attitudes
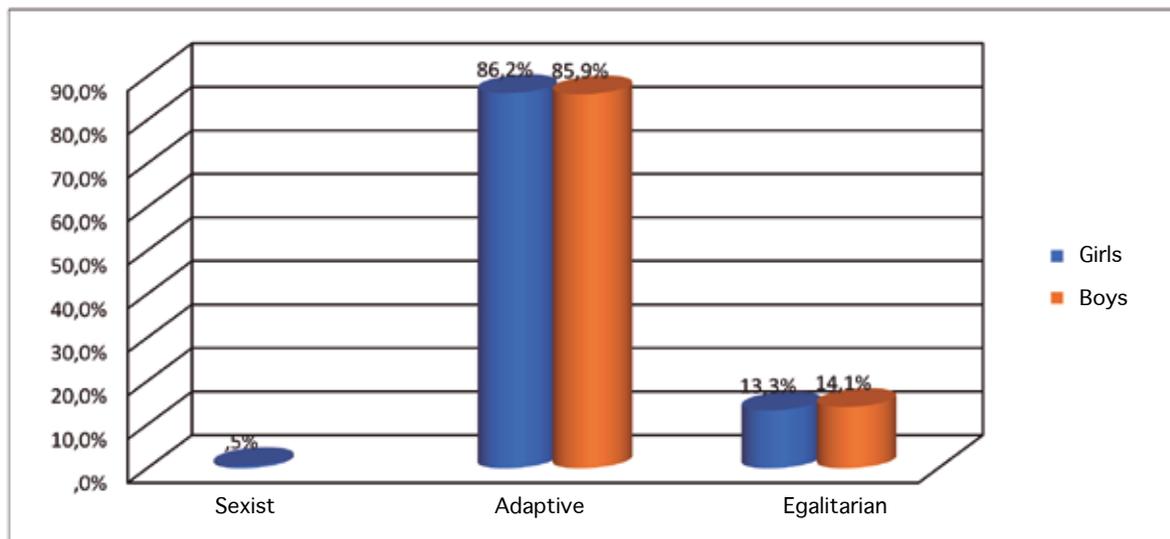
Source: own elaboration

Table 3 shows the results of Spearman's non-parametric correlation analysis There is a highly significant correlation between gender perspective and social interaction at a significance level of 0.01. This explains that both variables are highly associated; therefore, the results in gender indicators show an adaptive attitude that directly affects the treatment of equality and equity in the social interaction of students.

Table 3. Spearman's non-parametric interaction

			Gender Perspective	Social Interaction
rho de Spearman's	Gender perspective	Correlation Coefficient	1,000	,370**
		Sig. (2-tailed)	.	,000
		N	259	259
	Social Interaction	Correlation coefficient	,370**	1,000
		Sig. (2-tailed)	,000	.
		N	259	259

** Correlation is significant at level 0.01 (2-tailed).
Source: Own elaboration.

4. Discussion

The research led to a structural analysis from the diversity of characteristics that can be generated by a representative sample of students. There was a marked difference in the gender perspective with regard to sex. The information made it possible to construct an analysis of the indicators of the variables:

Stereotype: Students maintain a high perspective with a tendency to moderate on stereotypes about generalizations and beliefs; this is understandable because during adolescence a more precise knowledge of these aspects is gradually acquired. In this regard, Andrade-Zurita et al. (2017) affirm that these social practices, models exercised, ideas created, speeches and cultural representations are accepted in morality and ethics by communities, and are simultaneously promoted and reproduced by school institutions.

Discrimination: Stereotypes are imposed; they arise when gender differences become unequal. However, in the results, students agree to have homosexual friends, which is manifested by a degree of acceptance toward equality, but it dissociates itself into activities that are considered for women (tasks of care), which allows to infer that there is a high perception in the established stereotype roles for men, and it is moderate for the behavior that is appropriate for women. In this regard, Andrade-Zurita et al. (2017), refer that there are students´ assessments of the social behavior represented by women or men; and that these relate sociocultural discrimination to the gender perspective. For Silva-Diverio (2016), adolescents interconnect and support in activities related to their gender. In the case of women, attitudes related to caring for people, understanding and feelings are evident; while men stand out in the ability to act with physical strength, measure superiority of one with the other and show their manly appearance.

Violence: The information showed a clearly sexist attitude and socially influenced by stereotypes that abound in considering the social subjection of men to women. Women's vulnerability is accepted, a belief shared by the same women sample. De la Osa et al. (2013) reported that adolescents, in a significant number, are tolerant and disagree with violent actions; however, there

are moments when they use aggressive responses based on the role they play as men. Therefore, the way in which aggression against women is carried out should be avoided, and as mentioned by Jiménez and Estévez (2017) students should know that "gender equality promotes development in societies (p. 254).

Gender: Adolescents maintain a sexist perspective to the female and male figure in society, persisting the position of vulnerability towards women. It is observed that sexist and adaptive positions are related to the social and stereotyped character, given the indicators involved in this dimension which are acquired in a process in which adolescents integrate culture, social environment, family group and school. Segato (2016) states that with age, the marked differences in behavior between men and women are increasing and have a negative impact on their interrelationships; therefore, the population must be educated not only by explicit measures, but also by indirect measures that foster positive values and attitudes in discrimination behaviors, to make them visible and to eliminate them.

Equity: Equity is overlooked; a sexist overvaluation is observed against this indicator. However, students are more sensitive about women being academically superior to men and, in the sport and social fields students consider that there is equality in both genders. In this regard, Ruiz-Ramírez and Ayala-Carrillo (2016) explain the importance of raising awareness about gender equity to transform the way of seeing the roles that women and men play in social and economic development.

Equality: Adolescents have accepted that there are other forms of masculinity and femininity and that they can live together in educational environments on equal terms, but there was a tendency to assume that there is no equality in certain stereotyped activities of both men and women. In this regard, Villegas (2018) demonstrated that there is marked inequality between women in relation to men in some areas. Vega et al. (2019) affirm that balanced and productive development requires actions that promote equality between men and women, as well as the creation of policies that regulate and promote equitable participation with a view to fostering inclusive and respectful education for the other. Adolescents are more considered when it comes to equality, this helps to "reduce gender gaps in opportunities and rights" (UNESCO, 2015, p.14).

According to the defined cut-off points, the sample showed adaptive perspectives that directly affect equality and equity in the social interaction of students. The correlation analysis showed a high significance level between the variables.

5. Conclusions

The gender perspective of today's adolescents has changed considerably compared to 20 years ago. Even though archaic attitudes like machismo and homophobia continue in Ecuador, trends have varied in favor of gender equality and conditions.

In reference to factors affecting the gender perspective of adolescents for the social development in Elementary and High school, it is inferred that social, religious, ideological, political, historical, economic and cultural levels prevail in stereotypes, discrimination, violence and sex.

Study participants with respect to adaptive attitudes showed that they have adapted to the situations; most have done so because they believe in equality of opportunities. However, there is still a low percentage remaining that holds firm to the sexist ideas that have been taught at home.

It was evident that students understand that women are a fundamental and active part of society, not only as a mother but also as a professional who helps to improve the productivity of the country; however, there are trends to place them in the conduction of domestic tasks.

Social stereotypes were related to the fact that men represent the strong gender and lead group activities, and it is very natural that parents give them more permission and freedom to do more things. The results also show the tendency to

believe that they are more capable of performing technical and mechanical tasks; they are responsible for supporting the family economically; and that the president of the country must be a man. Women are socially considered better students and more physically vulnerable than men.

In general, some of the attitude of young people to new circumstances is marked by the education they receive at home; there is a condition of stigmatizing the unknown, but these barriers have been decreasing as new technologies allow people to appreciate and value similar situations that occur in other countries. Similarly, women have gained opportunities in all social spaces managing to be equal, where gender does not define the individual capacity of people.

The analysis carried out in this research reaffirms the need to propose actions focused on equality policies, reinforced with activities that sensitize on these topics from the adaptive profile of the student. It is necessary to change, modify and suppress gender-sensitive social attitudes and behaviors related to the private sphere and care tasks. On the other hand, it is recommended to avoid the formation of scenarios where gender-based violence is allowed, by focusing on formative activities that seek social coexistence and peace.

It is necessary that parents and family members address issues that relate to gender as a social condition but from a reflective and tolerant point of view, to avoid the exclusion or discrimination of young people who do not identify themselves with their sex. Teachers should be trained so that they can clarify questions that students formulate, so that there is no misconception or misinformation that would generate doubts and confusion. Strategies should be implemented to develop an educational process from co-education, based on values such as tolerance, acceptance of new ways of expressing gender, harmonious coexistence, diversity, inclusion, plurality and autonomy.

References

Aguilar, Y., Valdez, J., González, N., & González, S. (2013). Los roles de género de los hombres y las mujeres en el México Contemporáneo. *Enseñanza e Investigación en Psicología, 18*(2), 207-224. https://bit.ly/2KZwgRP

Andrade-Zurita, S., Rosero-Morales, E., Lucas-Solórzano, C., Armas-Arias, S., & Núñez-Espinoza, M. (2017). Violencia de género en ambientes escolares: Desigualdades entre los sexos. *UTCIENCIA. Ciencia y tecnología al servicio del pueblo, 4*(1), 24-36. https://bit.ly/2W1LRqo

Asamblea Constituyente de la República del Ecuador. Constitución de la República del Ecuador. Registro Oficial. Nº 449. Año II, del 20-10-2008.

Azorín-Abellán, C.M. (2017). Actitudes hacia la igualdad de género en una muestra de estudiantes de Murcia. *Revista Complutense de Educación*, *28*(1), 45-60. http://dx.doi.org/10.5209/rev_RCED.2017.v28.n1.48715

Beltrán-Gálvez, M. (2012). La otra cara de la moneda: mujeres que practican violencia. *Revista Punto Género,* (2), 71-92. https://doi.org/10.5354/0719-0417.2012.28365

Benavente, M., & Valdés, A. (2014). *Políticas públicas para la igualdad de género: Un aporte a la autonomía de las mujeres.* Comisión Económica para América Latina y el Caribe (CEPAL). https://bit.ly/3dlxX87

Bruel, T., Scarparo, H., Calvo, A., Sebastián, J., & Blanco, A. (2013). Estudio psicosocial sobre las representaciones sociales de género. [A Psychosocial Study about the Social Representations of Gender] *Diversitas: Perspectivas en Psicología, 9*(2), 243-255. https://doi.org/10.15332/s1794-9998.2013.0002.01

Cabezas, E., Andrade, D., & Torres, J. (2018). *Introducción a la metodología de la investigación científica.* (1ª. Ed). Electrónica. Universidad de las Fuerzas Armadas ESPE. https://bit.ly/2xMXHeB

Camarera, M., & Saavedra, M. (2018). La perspectiva de género en los programas de estudio de las licenciaturas contables administrativas. [The gender perspective in the curriculum of management accountants degrees]. *Nóesis: Revista*

de Ciencias Sociales y Humanidades, 27(54). https://doi.org/10.20983/noesis.2018.2.3

Chávez-Carapia, J. (2017). Percepción de la igualdad de género en jóvenes universitarios. Grupo de investigación Centro de Estudios de la Mujer. 2015-2016. *UNAM: Revista de Trabajo Social*, 75-90. https://bit.ly/2SLtF2m

Defensoría del Pueblo-Ecuador (2016). Política Institucional de Igualdad de Género (2016-2019). https://bit.ly/2WWCUyX

Duarte, J., & García, J. (2016). Igualdad, equidad de género y feminismo, una mirada histórica a la conquista de los derechos de las mujeres. [Equity, Gender Equality and Feminism, a historical look at the conquest women's rights]. *Revista CS, 2*(18), 13-38. https://doi.org/10.18046/recs.i18.1960

De la Osa, Z., Andrés, S., & Pascual, I. (2013). Creencias adolescentes sobre la violencia de género. Sexismo en las relaciones entre adolescentes. *European Journal of Investigation in Health, Psychology and Education*, *3*(3), 265-275. https://doi.org/10.30552/ejihpe.v3i3.51

Fondo de las Naciones Unidas para la Infancia (2015). Educación para Todos. Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura.

Gamboa, M. (2017). Estadística aplicada a la investigación educativa. *Dilemas Contemporáneos: Educación, Política y Valores, V*(2). https://bit.ly/2xJBbU1

García-Pérez, R., Rebollo, M.A, Buzón, O., González-Piñal, R., Barragán, R., & Ruiz, E. (2010). Actitudes del alumnado hacia la igualdad de género. *Revista de Investigación, 28*(1), 217-232. https://bit.ly/2zgDRZN

Guerra-López, R. (2016). Persona, sexo y género. Los significados de la categoría "género" y el sistema "sexo/género" según Karol Wojtyła. *Revista de Filosofía Open Insight*, *7*(12), 139-164. https://bit.ly/2XsvkLL

Guzmán, F. (2015). *Violencia de género en adolescentes: Análisis de las perspectivas y de las acciones educativas propuestas por la Junta de Andalucía*. (Tesis de doctorado). Universidad de Sevilla. https://bit.ly/3fnU0gm

Hernández, R., Fernández, R., & Baptista, P. (2014). *Metodología de la investigación* (6a. ed.). Mc Graw Hill.

Javaloy, F., Espelt, E., & Rodríguez, Á. (2016). Comportamiento colectivo y movimientos sociales en la era global. En J. Morales, E. Gaviria, M. Moya, & I. Cuadrado (Coords.), *Psicología social*, 641-691. Mc Graw Hill. https://bit.ly/2AavS0H

Liscano, D. (2016). Representaciones sociales sobre las personas LGBTI en la universidad: perspectivas del profesorado y alumnado. *Revista Nacional e Internacional de Educación Inclusiva, 9*(3), 231-249. https://bit.ly/2WduByn

Lozano, A.V. (2014). Teoría de Teorías sobre la Adolescencia. [Theory of Theories about Adolescence]. Última década, 22(40), 11-36. https://dx.doi.org/10.4067/S0718-22362014000100002

Medina, V., Coronilla, U., & Bustos, E. (2015). La discriminación dentro del salón de clases. [Discrimination in the classromm]. *RIDE Revista Iberoamericana para la Investigación y el Desarrollo Educativo, 6*(11), 855-867. https://doi.org/10.23913/ride.v6i11.134

Meza, J., & Páez, R. (2016). *Familia, escuela y desarrollo humano: Rutas de investigación educativa*. (1ª ed). Kimpres S.A.S. https://bit.ly/36qnYfw

Organización de las Naciones Unidas (1995). *La Declaración de Beijing: IV Conferencia Mundial sobre Mujeres. IV Conferencia Mundial sobre las mujeres. Beijing*: N.N.U.U. https://bit.ly/3b91FMs

Organización de las Naciones Unidades Mujeres (2014). *Declaración Política y documentos de Beijing +5*. ONUM. https://bit.ly/2Wegxoz

Organización de las Naciones Unidas para la Educación la Ciencia y la Cultura (2015). *Igualdad de género. Patrimonio y creatividad*. https://bit.ly/3cYW8tu

Ortiz-Jiménez, J.G., Ramírez-Garzón, M.I., Moreno-F., M., & Martínez-Morales, E. M. (2018). *Las rutas de las emociones: Sujetos e instituciones en tránsito a la paz*. Taller de Edición Rocca. https://bit.ly/2WAEqpg

Rodríguez, P., Matud, M., & Álvarez, J. (2017). Género y calidad de vida en la adolescencia. *Journal of Behavior, Health & Social Issues, 9*(2), 89-98. https://doi.org/10.1016/j.jbhsi.2017.11.001

Ruiz-Ramírez, R., & Ayala-Carrillo, M. (2016). Violencia de género en instituciones de educación. *Ra Ximhai*, 21-32. https://doi.org/10.35197/rx.12.01.2016.01.rr

Secretaría Nacional de Planificación y Desarrollo. Consejo Nacional de Planificación (2017). Plan Nacional Toda una Vida 2017-2021. Quito. Ecuador. Resolución No. CNP-003-2017 del 22-09-2017. https://bit.ly/3cYDBgV

Segato, R. (2016). *La guerra contra las mujeres*. Traficantes de sueños: Mapas. https://bit.ly/2LVoHMk

Serret, E. (2016). Hacia una redefinición de las identidades de género. *GénEr♀♂s, Revista de investigación y divulgación sobre los estudios de género, 18*(9), 71-97. https://bit.ly/3fr6Hai

Silva-Diverio, I. (2016). *La adolescencia y su interrelación con el entorno*. Instituto de la Juventud (INJUVE). https://bit.ly/2WXA6lm

Solís-Sabanero, A. (2016). La perspectiva de género en la educación. En J.A. Trujillo-Holguín y J.L. García-Leos (Coords.), *Desarrollo profesional docente: reforma educativa, contenidos curriculares y procesos de evaluación*, 97-107. https://bit.ly/2SLNXsx

Suárez, P., & Vélez, M. (2016). El papel de la familia en el desarrollo social del niño: una mirada desde la afectividad, la comunicación familiar y estilos de educación parental. [The role of the family in social development of child: a look from affectivity, family communication and education] *Psicoespacios, 12*(20),173-197. https://doi.org/10.25057/issn.2145-2776

Torres, L. (2018). *Interiorización de los estereotipos de género en la sociedad argentina y el ideal de belleza en los mensajes publicitarios* [Tesis de doctorado, Universidad Complutense de Madrid]. https://bit.ly/2SPgCgi

Trejo-Sirvent, M.L., Llaven-Coutiño, G., & Pérez y Pérez, H.C. (2015). El enfoque de género en la Educación. *Atenas, 4*(32), 49-61. https://bit.ly/2Wb43xI

Vega, A., García, S., Candela, B., Santos, J., Díaz, M., & Torrado, E. (2019). De la teoría a la práctica educativa en igualdad. [From theory to educational practice in equality]. *Revista de la ULL*, 31-50. https://doi.org/10.25145/b.innovaull.2019.002

Villegas, V. (2018). Concepciones de género y convivencia escolar en los y las estudiantes de la Unidad Educativa CMDT. César Endara Peña Herrera. [Conceptions of gender and school coexistence in the students of the Educational Institution CMDT César Endara Peña Herrera]. *Retos de la Ciencia, 2*(2), 139-154. https://bit.ly/2WGcUGZ

Publication guidelines

(Normas Editoriales)

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Publication Guidelines of «Alteridad»

1. General information

«Alteridad» is a bilingual scientific publication of the Salesian Polytechnic University of Ecuador (UPS), published since January 2006 uninterruptedly, on a semi-annual basis (January-July).

It is an arbitrated scientific journal, which uses the peer-review system under the double-blind review, in accordance with the publication standards of the American Psychological Association (APA). The compliance with this system ensures authors an objective, impartial and transparent review process, making it easier for authors to be included in reference international databases, repositories and indexes.

«Alteridad» is indexed in the Web of Science's Emerging Sources Citation Index (ESCI), at the Scientific Electronic Library Online (SciELO), in the REDALYC Scientific Information System, in the directory and selective catalog of the Regional Online Information System for Scientific Journals of Latin America, the Caribbean, Spain and Portugal (Latindex), in the Directory of Open Access Journals (DOAJ), in the European Reference Index for the Humanities and Social Sciences (ERIHPLUS), in the Ibero-American Network of Innovation and Scientific Knowledge (REDIB), on the Dialnet Portal; it is evaluated in the Information Matrix for Journal Analysis (MIAR), the Integrated Classification of Scientific Journals (CIRC), and the Qualis review system for CAPES journals. In addition, it is in repositories, libraries and specialized catalogs around the world.

The journal is published in two versions: electronic (e-ISSN: 1390-8642) and printed (ISSN: 1390-325X) in Spanish and English; each manuscript is identified with a Digital Object Identifier System (DOI). All articles published in «Alteridad» have the Creative Commons Attribution-Non-Commercial-Share Equal license (RoMEO blue journal).

2. Scope and policies

2.1. Topics

«Alteridad» is a journal specialized in Education and its transdisciplinary lines such as Didactics, Public Policies, School Management, Edu-communication, ICT, Social Pedagogy, among others; and all those disciplines related to the main topic.

2.2. Sections

The journal has a semi-annual periodicity (20 articles per year), published in January and July and has two sections of five articles each by number; the first referring to a **Monographic** topic

prepared in advance and with thematic topic and the second, a section of **Miscellaneous**, composed of varied contributions within the theme of the publication.

2.3. Contributions

All manuscripts must be original, and must not have been published in any other journal or must not be in the arbitration or publication process in another journal. Empirical research results are published in Spanish, Portuguese or English, and studies and state-of-the-art are also admissible:

- **Researches:** 5000 to 6500 text words, including title, abstracts, descriptors, tables and references. Particular assessment will be made of research results, methodological rigor, the relevance of the subject, the quality of scientific discussion, the variety, timeliness and richness of bibliographic references (preferably publications indexed in JCR and Scopus). At least 35 references are expected.
- **Literature studies and reviews:** 6000 to 7000 text words, including tables and references. The debate generated, the relevance of the subject, the originality, current and selective contributions and references of around 70 works (preferably from publications indexed in JCR and Scopus) will be particularly valued.

3. Editorial process

3.1. Submission of manuscripts

Manuscripts must be submitted only and exclusively through the Open Journal System (OJS), in which all authors must register in advance, although only one will be responsible for the correspondence. No author may submit or review two manuscripts simultaneously, estimating a time of four consecutive numbers (2 years). An article may have a maximum of 3 authors, although if justified depending on the size of the study, there may be up to 5.

«Alteridad» informs the reception of the manuscript submitted by the authors; the information related to the acceptance or rejection of the manuscript is sent by email and the platform; and in the case of acceptance, the author is also informed of the editing process.

In the website of the journal, in the Guidelines section, are presented the Guidelines for the Authors, the format of the structure of the articles, the cover page and cover letter, the pre-submission list, the evaluation forms by the external reviewers and a guide for the submission of the article through OJS. Before the submission, it is strongly recommended that the manuscript be checked with the Pre-Check Protocol. Two documents should be sent simultaneously:

a) Cover page and cover letter (use the official model), on which will appear

- Cover page (Title, Abstract and key words provided in the Manuscript).
- Full name of each of the authors, organized in priority order; followed by the professional category, institution, email of each author and ORCID number. It is mandatory to indicate if the authors have a PhD academic degree (include Dr. before the name).

• A **Cover letter** will also be included indicating that the manuscript is an original contribution, has not been sent or evaluated in another journal, with the signature of the authors, and acceptance (if applicable) of formal changes to the manuscript compliant with the rules and partial transfer of rights to the publisher.

b) Fully anonymized **manuscrip**t, in accordance with the rules referred to in section 4.

3.2. Revission process

Upon having received the document and in a maximum period of 30 days, the correspondence author shall receive a notification, indicating whether the manuscript is estimated or dismissed for the arbitration process by the scientific reviewers. In the case that the article has formal problems, or does not address the educational subject, or has a high similarity percentage to another document(s), the editorial board shall dismiss the work without the option to return it. Conversely, if it has superficial problems, it will be returned to the author for the corrections before starting the evaluation process. The submission date of the article will be considered based on the final submission when the article is presented with the corrections.

The articles will be scientifically evaluated by an average of three experts of the topic. Reports will indicate the following recommendations: Accept the Submission, Publishable with Modifications, Sent the manuscript back for its Review, Not Publishable. The acceptance or rejection of the manuscript for its publication will be decided from the analysis of external reports. In the case of dissenting results, it shall be forwarded to a new opinion, which shall be final. The protocol used by reviewers is public (researches; studies and state-of-the-art).

In general, once the external scientific reviews are taken into view, the criteria justifying the decision on the acceptance/rejection of the manuscript by the Editorial board are:

• Current and novelty.
• Relevance and significance: Advancement of scientific knowledge.
• Originality.
• Reliability and scientific validity: Proven methodological quality.
• Organization (logical coherence and formal presentation).
• External support and public/private funding.
• Co-authoring and internationalization degree of the proposal and the team.
• Presentation: Good writing.

The timeline for the scientific evaluation of manuscripts, after the previous estimation procedures by the Editorial Board is a maximum of 100 days. In relation to the manuscripts sent for Calls for papers, their scientific review dates begin once the call finishes. Manuscripts that are positively evaluated and require modifications must be sent with the changes, within the next 15 days.

3.3. Editing and publishing of the manuscript

The edition and layout processes of the accepted articles is performed by the Technical Board of the journal in coordination with the Abya-Yala Editorial. «Alteridad» reserves the right to make style corrections and editorial changes if necessary to improve the manuscript. A proof of printing in PDF format will be sent to the authors for the correction of typography and spelling in a maximum of three days.

Abya-Yala Editorial will carry out, free of charge for the authors, the professional translation of the final version of the manuscript into the English language (or Spanish, according to

the original version), which will guarantee the consultation and international dissemination of the manuscript. The articles will be published on the journal's platform in a timely manner. All articles, in their two language versions (Spanish and English), are published in PDF, HTML, EPUB and XML-Jats format.

3.4. Promotion and dissemination of the published article

The authors are committed to give maximum diffusion to their article published in «Alteridad». In this sense, they are encouraged to promote their published article on academic networks (Academia.edu, ResearchGate, Mendeley, Kudos), social (Twitter, Facebook, LinkedIn, also publishing the DOI), institutional repositories, web or blog staff, among others. Authors are also encouraged to share the published article through email lists, research groups and personal contacts.

«Alteridad» has a Metric Measurement System (PlumX) that allows verifying the compliance with this commitment. For the submission of future articles by authors of «Alteridad», the impact of previous works will be taken into account.

4. Structure of the manuscripts

The manuscripts shall be submitted in typeface Arial 10, simple spacing, fully justified and without tabs or white space between paragraphs. Only large blocks (title, authors, abstracts, key words, credits, and captions) will be separated with white space. The page must be 2 centimeters in all its margins. Manuscripts must be submitted in Microsoft Word document (.doc or .docx), requiring the file to be anonymized in File Properties to avoid the information related to the identification of the author/s.

4.1. Cover page

Title (Spanish and English): Concise but informative, in Spanish on the first line and in English in the second, consisting of as many significant terms as possible. The title is not only the responsibility of the authors, and changes can be proposed by the Editorial Board. A maximum of 80 characters with space are accepted.

Abstract (Spanish and English): It must be presented in a concise way and in this order: Justification, objectives, methodology used (approach and scope), more relevant results, discussion and main conclusions. It must be written impersonally "The present work analyzes...". In the case of the Abstract, the use of automatic translators will not be accepted because of their poor quality. It will be between 220/230 words.

Key words (Spanish and English): 6 keywords must be presented for each language version directly related to the topic of the manuscript. The use of the keywords presented in UNESCO's Thesaurus will be positively valued (http://bit.ly/2kIgn8I) or the controlled vocabulary of IRESIE (http://bit.ly/2mgg4m8).

4.2. IMRDC Structure

For those works involving empirical research, the manuscripts will strictly respect the IMRDC structure, with the headings of Economic Supports and Notes being optional. The works

involving Literature Studies and Revisions may be more flexible under their headings, especially in Methodology, Results and Discussion. In all types of works, bibliographic references are mandatory.

1. **Introduction and state of the play:** It should include the theoretical foundations and purpose of the study, using bibliographic citations, as well as the review of the most significant literature of the topic at the national and international level. The use of high-impact references (JCR and Scopus) will be positively valued.

2. **Methodology:** It must be written in a way that the reader can easily understand the development of the research. It should contain the explanation on the approach (quantitative, qualitative or mixed) and the scope (exploratory, descriptive, correlational or explanatory). When appropriate, it shall describe the sample and the sampling form, as well as it must refer to the type of statistical analysis applied. If it is an original methodology, it is necessary to set out the reasons that have led to its use and describe the possible limitations.

3. **Results:** Efforts will be made to highlight the most relevant results and observations of the investigation, describing, without making judgments, the material and methods used for the analysis. The results will be presented in figures or/and tables according to the journal's standards (See section 4.4). They will appear in a logical sequence in the text, tables or figures, avoiding data redundancy.

4. **Discussion and conclusions:** Discussion and conclusions: It will summarize the most important findings, relating the observations with interesting studies, pointing to contributions and limitations, without resulting in data already commented in other sections. In addition, the discussion and conclusions section should include deductions and lines for future research.

4.3. Economic support and notes

Economic support (optional): Council Science Editors recommends that authors specify the source of funding for the research. Works on the endorsement of competitive national and international projects will be considered a priority. In any case, for the scientific assessment of the manuscript, it must be anonymized with XXXX only for its initial evaluation, in order not to identify authors and research teams, which must be set out in the Presentation Letter and subsequently in the final manuscript.

Notes (optional) will go, only if necessary, at the end of the article (before references). They should be used to clarify terms or make marginal annotations. Note numbers are placed in superscript, both in the text and in the final note. Notes collecting simple bibliographic citations (without comments) are not allowed, as these should be in the references. If it contains a cite, the reference must also be found in the Bibliography section.

4.4. Bibliography

Bibliographical citations should be reviewed in the form of references to the text. Bibliography that is not cited should not be included in the text. Its number must be sufficient and necessary to contextualize the theoretical framework, methodology used and research results in an international research space: Minimum 35 for empirical research manuscripts, and around 70 for literature studies and reviews.

They will be presented alphabetically by the author's first last name (adding the second one only in case the first one is very commonly used, and joined with a hyphen). The quote should be extracted from the original documents, preferably journals and to a lesser extent books. Given the significance of citation indices and impact factor calculations, the use of references from indexed

publications in JCR and/or Scopus and the correct citation following APA 6 norms is valued (http://bit.ly/2meVQcs).

It is mandatory that quotes with DOI (Digital Object Identifier System) be reflected in the References (can be obtained on https://search.crossref.org/). All journals and books without DOI must contain a link (in its online version, if applicable, and in a shorten version using Bity: https://bitly.com/), and the websites must include the consultation date using the format provided.

Journal articles must be presented in English, with the exception of those in Spanish and English, in which case they will be presented in both languages using square brackets.

Norms for the references

a) Periodic publications

- **Journal article (one author):** Ochoa, A. (2019). The type of participation promoted in schools is a constraint factor for inclusive education. [El tipo de participación que promueve la escuela, una limitante para la inclusión]. *Alteridad*, 14(2), 184-194. https://doi.org/10.17163/alt.v14n2.2019.03
- **Manuscript from a journal (until twenty authors):** Guarderas, P., Larrea, M., Cuvi, J., Vega, C., Reyes, C., Bichara, T., Ramírez, G., Paula, Ch., Pesantez, L., Íñiguez, A., Ullauri, K., Aguirre, A., Almeida, M., & Arteaga, E. (2018). Sexual harassment in Ecuadorian universities: Content validation for instrument development. [Acoso sexual en las universidades ecuatorianas: Validez de contenido de un instrumento de medición]. *Alteridad*, 13(2), 214-226. https://doi.org/10.17163/alt.v13n2.2018.05
- **Manuscript from a journal (without DOI):** López, L., & Ramírez-García, A. (2014). Medidas disciplinarias en los centros educativos: ¿Suficientes contra el acoso escolar? *Perfiles Educativos*, 36(145), 32-50. https://bit.ly/37Xd5mw.

b) Books and chapters of books

- **Complete books:** Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Abya-Yala.
- **Chapter of books:** Padilla-Verdugo, J. (2014). La Historia de la Educación desde los enfoques del conocimiento. In E. Loyola (Ed.), *Ciencia, Tecnología y Sociedad (CTS). Miradas desde la Educación Superior en Ecuador* (pp. 107-128). Abya-Yala. https://bit.ly/3etRnZH

c) Electronic means

- Aunión, J. (2011, marzo 12). La pérdida de autoridad es un problema de toda la sociedad, no es específico del aula. *t*. https://bit.ly/2NlM9Dp

Guidelines for headings, tables and figures

The headings of the article shall be numbered in Arabic. These will be without full case of capital letters, no underscores, no bold ones. The numbering must be at most three levels: 1. / 1.1. / 1.1.1. A carriage return will be established at the end of each numbered heading.

Tables and figures must be presented in the text in Microsoft Word® located on the place where the authors consider they should be. They shall be used only when necessary and suitable, their use should be limited for reasons of spaces (maximum 6 between tables and figures). Both must be listed in Arabic and titled with the description of their content. If the source of the table or figure

is not of its own elaboration, the authors must incorporate the source consulted below the table [for example, Source: Romero-Rodríguez (2016, p. 32)].

Tables must be elaborated in Microsoft Word document, thus tables cut and pasted from other documents that cannot be edited in the diagramming process will not be accepted. The figures, in addition to being incorporated in the Microsoft Word document®, must be sent as supplementary material during the submission in the «Alteridad» OJS, with a quality greater than 600 dpi, in TIFF, JPEG or PNG files.

5. Fees and APC

«Alteridad» is an Open Access journal, included in the Directory of Open Access Journals (DOAJ) that offers all its production online for the entire scientific community. It also does not set any economic fees throughout the editorial process for the publication of the articles, including scientific review, layout and translation thereof. There is no publication fee, no Article Processing Charge (APC) associated with this publication, neither for authors nor for readers. The journal is also licensed by Creative-Commons Attribution-Non-Commercial-Share Equal (RoMEO blue journal), which allows free access, download and archive of published articles. All expenses, inputs and financing of «Alteridad» come from the contributions made by the Salesian Polytechnic University.

6. Ethical responsibilities

Each author shall submit a responsible statement of authorship and originality, as well as their ethical responsibilities.

- **Originality:** The works must be original and should not be evaluated simultaneously in another publication, being the responsibility of the authors to comply with this standard. The opinions expressed in the published articles are the responsibility of the author/s «Alteridad» as CrossRef®›s international partner, uses the CrossCheck® and iThenticate® anti-plagiarism tool to ensure the originality of the manuscripts.
- **Authorship:** The list of signatory authors should include only those who have contributed intellectually to the development of the work. Collaborating in data collection is not sufficient criteria of authorship. «Alteridad» rejects any responsibility for possible conflicts arising from the authorship of the manuscripts published.
- **Transmission of copyright:** the transfer of rights of the manuscript published in «Alteridad» will be included in the cover letter. The Salesian Polytechnic University (the publisher) has the copyright of published articles; it favors and allows the reuse of these under the license of use indicated above.

Normas de Publicación en «Alteridad»

1. Información general

«Alteridad» es una publicación científica bilingüe de la Universidad Politécnica Salesiana de Ecuador (UPS), editada desde enero de 2006 de forma ininterrumpida, con periodicidad fija semestral (enero-julio).

Es una revista científica arbitrada, que utiliza el sistema de evaluación externa por expertos (*peer-review*), bajo metodología de pares ciegos (*doble-blind review*), conforme a las normas de publicación de la *American Psychological Association* (APA). El cumplimiento de este sistema permite garantizar a los autores un proceso de revisión objetivo, imparcial y transparente, lo que facilita a la publicación su inclusión en bases de datos, repositorios e indexaciones internacionales de referencia.

«Alteridad» se encuentra indexada en el *Emerging Sources Citation Index* (ESCI) de *Web of Science*, en la *Scientific Electronic Library Online* (SciELO), en el Sistema de Información Científica REDALYC, en el directorio y catálogo selectivo del Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal (Latindex), en el *Directory of Open Access Journals* (DOAJ), en el *European Reference Index for the Humanities and Social Sciences* (ERIHPLUS), en la Red Iberoamericana de Innovación y Conocimiento Científico (REDIB), en el Portal Dialnet; está evaluada en la Matriz de Información para el Análisis de Revistas (MIAR), en la Clasificación Integrada de Revistas Científicas (CIRC), y en el sistema Qualis de revisión de revistas de CAPES. Además, se encuentra en repositorios, bibliotecas y catálogos especializados de todo el mundo.

La revista se edita en doble versión: electrónica (e-ISSN: 1390-8642) e impresa (ISSN: 1390-325X) en español e inglés; siendo identificado cada trabajo con un *Digital Object Identifier System* (DOI). Todos los artículos publicados en «Alteridad» tienen licencia Creative Commons Reconocimiento-No-Comercial-Compartir igual (RoMEO blue journal).

2. Alcance y política

2.1. Temática

«Alteridad» es una revista especializada en Educación y sus líneas transdisciplinares como Didáctica, Políticas Públicas, Gerencia de Centros Escolares, Educomunicación, TIC, Pedagogía Social, entre otras; y todas aquellas disciplinas conexas interdisciplinarmente con la línea temática central.

2.2. Secciones

La revista tiene periodicidad semestral (20 artículos por año), publicada en los meses de enero y julio y cuenta por número con dos secciones de cinco artículos cada una, la primera referida a un tema **Monográfico** preparado con antelación y con editores temáticos y la segunda, una sección de **Misceláneas**, compuesta por aportaciones variadas dentro de la temática de la publicación.

2.3. Aportaciones

Todos los trabajos deben ser originales, no haber sido publicados en ningún medio ni estar en proceso de arbitraje o publicación. Se editan preferentemente resultados de investigación empírica, redactados en español, portugués o inglés, siendo también admisibles estudios y selectas revisiones de la literatura (*state-of-the-art*):

- **Investigaciones:** 5000 a 6500 palabras de texto, incluyendo título, resúmenes, descriptores, tablas y referencias. Se valorarán especialmente los resultados de la investigación, el rigor metodológico, la relevancia de la temática, la calidad de la discusión científica, la variedad, actualidad y riqueza de las Reference (preferiblemente de publicaciones indexadas en JCR y Scopus). Se esperan mínimo 35 referencias.
- **Estudios y revisiones de la literatura:** 6000 a 7000 palabras de texto, incluidas tablas y referencias. Se valorará especialmente el debate generado, la relevancia de la temática, la originalidad de las aportaciones y referencias justificadas, actuales y selectivas de alrededor de 70 obras (preferiblemente de publicaciones indexadas en JCR y Scopus).

3. Proceso editorial

3.1. Envío de manuscritos

Los manuscritos deben ser enviados única y exclusivamente a través del *Open Journal System* (OJS), en el cual todos los autores deben darse de alta previamente, si bien uno solo de ellos será el responsable de correspondencia. Ningún autor podrá enviar o tener en revisión dos manuscritos de forma simultánea, estimándose una carencia de cuatro números consecutivos (2 años). Un artículo podrá tener como máximo 3 autores, aunque si se justifica en función del tamaño del estudio, podrán ser hasta 5.

«Alteridad» acusa recepción de los trabajos enviados por los autores, informa por email y la plataforma del proceso de aceptación o rechazo; y en el caso de aceptación, del proceso de edición.

En el Portal oficial de la revista, en la sección Normativas, están las Normas para Autores, el formato de estructura de los artículos, la Portada y Carta de presentación, el chequeo previo al envío, los formularios de evaluación por parte de los revisores externos y una guía para el envío del artículo a través de OJS. Antes de su envío se recomienda encarecidamente que se compruebe el manuscrito con el Protocolo de chequeo previo. Deben remitirse simultáneamente dos documentos:

a. **Portada y Carta de presentación** (usar el modelo oficial), en la que aparecerán:
  - **Portada** (Título, Resumen y Descriptores previstos en el Manuscrito).
  - **Nombre y apellidos completos** de cada uno de los autores, organizados por orden de prelación; seguido por la categoría profesional, centro de trabajo, correo electrónico de cada autor y número de ORCID. Es obligatorio indicar si se posee el grado académico de doctor (incluir Dr./Dra. antes del nombre).
  - Se incluirá además una **declaración** (Cover letter) de que el manuscrito se trata de una aportación original, no enviada ni en proceso de evaluación en otra revista, confirmación de las

autorías firmantes, aceptación (si procede) de cambios formales en el manuscrito conforme a las normas y cesión parcial de derechos a la editorial.

b. **Manuscrito** totalmente anonimizado, conforme a las normas referidas en el epígrafe 4.

3.2. Proceso de revisión

En un plazo máximo de 30 días, a partir de la recepción del documento, el autor de correspondencia recibirá una notificación, indicando preliminarmente si se estima o desestima para el arbitraje por los revisores científicos. En el caso de que el artículo presente deficiencias formales, no trate el tema educativo, o tenga un elevado porcentaje de similitud con otro(s) documento(s), el Consejo editorial desestimará el trabajo sin opción de vuelta. Por el contrario, si presenta carencias superficiales de forma, se devolverá al autor para su corrección antes de comenzar del proceso de evaluación. La fecha de recepción del artículo no computará hasta la recepción correcta del mismo.

Los artículos serán evaluados científicamente por una media de tres expertos en el tema. Los informes indicarán las siguientes recomendaciones: Aceptar el envío, Publicable con modificaciones, Reenviar para revisión, No publicable. A partir del análisis de los informes externos, se decidirá la aceptación o rechazo de los artículos para su publicación. En el caso de resultados discrepantes se remitirá a un nuevo dictamen, el cual será definitivo. El protocolo utilizado por los revisores es público (Investigaciones; Estudios y revisiones de la literatura).

En general, una vez vistas las revisiones científicas externas, los criterios que justifican la decisión sobre la aceptación/rechazo de los trabajos por parte del Consejo Editor son los siguientes:

- Actualidad y novedad.
- Relevancia y significación: Avance del conocimiento científico.
- Originalidad.
- Fiabilidad y validez científica: Calidad metodológica contrastada.
- Organización (coherencia lógica y presentación formal).
- Apoyos externos y financiación pública/privada.
- Coautorías y grado de internacionalización de la propuesta y del equipo.
- Presentación: Buena redacción.

El plazo de evaluación científica de manuscritos, superados los trámites previos de estimación por el Consejo Editor, es de 100 días como máximo; los remitidos para *Calls for papers*, sus fechas de revisión científica se inician al cierre de los mismos. Los trabajos que sean evaluados positivamente y requieran modificaciones, deberán ser reenviados con los cambios, dentro de los siguientes 15 días.

3.3. Edición y publicación del manuscrito

El proceso de corrección de estilo y maquetación de los artículos aceptados es realizado por el Consejo Técnico de la Revista en coordinación con la Editorial Abya-Yala. «Alteridad» se reserva el derecho de hacer corrección de estilo y cambios editoriales que considere necesarios para mejorar el trabajo. A los autores de artículos se enviará una prueba de imprenta en formato PDF para su corrección únicamente de tipografía y ortografía en un máximo de tres días.

La Editorial Abya-Yala realizará, gratuitamente para los autores, la traducción profesional de la versión final del manuscrito al idioma inglés (o español, según la versión original), lo que garantizará

su consulta y difusión internacional. Los artículos serán publicados en la plataforma de la revista en tiempo y forma. Todos los artículos, en sus dos versiones idiomáticas (español e inglés), son publicados en formato PDF, HTML, EPUB y XML-Jats.

3.4. Promoción y difusión del artículo publicado

Los autores se comprometen a darle la máxima difusión a su artículo publicado en «Alteridad». En este sentido, se les exhorta a compartir y archivar su artículo publicado en las redes académicas (Academia.edu, ResearchGate, Mendeley, Kudos), sociales (Twitter, Facebook, LinkedIn, publicando en estos también el DOI), repositorios institucionales, web o blog personal, entre otras. Asimismo, se anima a los autores a compartir el artículo publicado a través de listas de correo electrónico, grupos de investigación y contactos personales.

«Alteridad» cuenta con sistemas de medición de métricas alternativas (PlumX) que permiten verificar el cumplimiento de este compromiso. Para la postulación de futuros artículos de autores de «Alteridad», se tendrá presente el impacto de los trabajos anteriores.

4. Estructura de los manuscritos

Los trabajos se presentarán en tipo de letra Arial 10, interlineado simple, justificado completo y sin tabuladores ni espacios en blanco entre párrafos. Solo se separarán con un espacio en blanco los grandes bloques (título, autores, resúmenes, descriptores, créditos y epígrafes). La página debe tener 2 centímetros en todos sus márgenes. Los trabajos deben presentarse en documento de Microsoft Word (.doc o .docx), siendo necesario que el archivo esté anonimizado en Propiedades de Archivo, de forma que no aparezca la identificación de autor/es.

4.1. Portada

Título (español) / Title (inglés): Conciso pero informativo, en castellano en primera línea y en inglés en segunda, conformado por el mayor número de términos significativos posibles. El título no solo es responsabilidad de los autores, pudiéndose proponer cambios por parte del Consejo Editorial. Se aceptan como máximo 80 caracteres con espacio.

Resumen (español) / Abstract (inglés): Se describirán de forma concisa y en este orden: Justificación del tema, objetivos, metodología empleada (enfoque y alcance), resultados más relevantes, discusión y principales conclusiones. Ha de estar escrito de manera impersonal "El presente trabajo analiza…". En el caso del *Abstract* no se admitirá el empleo de traductores automáticos por su pésima calidad. Tendrá como extensión entre 220/230 palabras.

Descriptores (español) / Keywords (inglés): Se deben exponer 6 descriptores por cada versión idiomática relacionados directamente con el tema del trabajo. Será valorado positivamente el uso de las palabras claves expuestas en el Thesaurus de la UNESCO (http://bit.ly/2kIgn8I) o del Vocabulario controlado del IRESIE (http://bit.ly/2mgg4m8).

4.2. Estructura IMRDC

Para aquellos trabajos que se traten de Investigaciones de carácter empírico, los manuscritos respetarán rigurosamente la estructura IMRDC, siendo opcionales los epígrafes de Apoyos y Notas. Los trabajos que se traten de Estudios y revisiones de la literatura podrán ser más flexibles en sus

epígrafes, especialmente en Metodología, Resultados y Discusión. En todas las tipologías de trabajos son obligatorias las Reference.

1. **Introducción y estado de la cuestión:** Debe incluir los fundamentos teóricos y el propósito del estudio, utilizando citas bibliográficas, así como la revisión de la literatura más significativa del tema a nivel nacional e internacional. Se valorará positivamente el uso de referencias de alto impacto (JCR y Scopus).

2. **Metodología:** Debe ser redactado de forma que el lector pueda comprender con facilidad el desarrollo de la investigación. Deberá contener la explicación sobre el enfoque (cuantitativo, cualitativo o mixto) y el alcance (exploratorio, descriptivo, correlacional o explicativo). En su caso, describirá la muestra y la forma de muestreo, así como se hará referencia al tipo de análisis estadístico aplicado. Si se trata de una metodología original, es necesario exponer las razones que han conducido a su empleo y describir sus posibles limitaciones.

3. **Resultados:** Se procurará resaltar los resultados y las observaciones más relevantes de la investigación, describiéndose, sin hacer juicios de valor, el material y métodos empleados para el análisis. Los resultados se expondrán en figuras o/y tablas según las normas de la revista (Ver epígrafe 4.4). Aparecerán en una secuencia lógica en el texto, las tablas o figuras imprescindibles, evitando la redundancia de datos.

4. **Discusión y conclusiones:** Resumirá los hallazgos más importantes, relacionando las propias observaciones con estudios de interés, señalando aportaciones y limitaciones, sin redundar datos ya comentados en otros apartados. Asimismo, el apartado de discusión y conclusiones debe incluir las deducciones y líneas para futuras investigaciones.

4.3. Apoyos y Notas

Apoyos (opcionales): El *Council Science Editors* recomienda a los autor/es especificar la fuente de financiación de la investigación. Se considerarán prioritarios los trabajos con aval de proyectos competitivos nacionales e internacionales. En todo caso, para la valoración científica del manuscrito, este debe ir anonimizado con XXXX solo para su evaluación inicial, a fin de no identificar autores y equipos de investigación, que deben ser explicitados en la Carta de Presentación y posteriormente en el manuscrito final.

Las notas (opcionales) irán, solo en caso necesario, al final del artículo (antes de las referencias). Deben ser utilizadas para aclarar términos o hacer anotaciones marginales. Los números de notas se colocan en superíndice, tanto en el texto como en la nota final. No se permiten notas que recojan citas bibliográficas simples (sin comentarios), pues éstas deben ir en las referencias. En caso de contener alguna cita, su referencia deberá encontrarse también en la sección de Reference.

4.4. Reference

Las citas bibliográficas deben reseñarse en forma de referencias al texto. No debe incluirse bibliografía no citada en el texto. Su número ha de ser suficiente y necesario para contextualizar el marco teórico, la metodología usada y los resultados de investigación en un espacio de investigación internacional: Mínimo 35 para los manuscritos de investigaciones de carácter empírico, y alrededor de 70 para los estudios y revisiones de literatura.

Se presentarán alfabéticamente por el apellido primero del autor (agregando el segundo solo en caso de que el primero sea de uso muy común, y unido con guion). Las citas deberán extraerse de

los documentos originales preferentemente revistas y en menor medida libros. Dada la trascendencia para los índices de citas y los cálculos de los factores de impacto, se valorarán positivamente el uso de referencias provenientes de publicaciones indexadas en JCR y/o Scopus y la correcta citación conforme a la Norma APA 6 (http://bit.ly/2meVQcs).

Es prescriptivo que todas las citas que cuenten con DOI (Digital Object Identifier System) estén reflejadas en las Referencias (pueden obtenerse en https://search.crossref.org/). Todas las revistas y libros que no tengan DOI deben aparecer con su link (en su versión on-line, en caso de que la tengan, acortada, mediante Bitly: https://bitly.com/), y de los sitios web además la fecha de consulta en el formato indicado.

Los artículos de revistas deben ser expuestos en idioma inglés, a excepción de aquellos que se encuentren en español e inglés, caso en el que se expondrá en ambos idiomas utilizando corchetes.

Normas para las referencias

a) Publicaciones periódicas

- **Artículo de revista (un autor):** Ochoa, A. (2019). The type of participation promoted in schools is a constraint factor for inclusive education. [El tipo de participación que promueve la escuela, una limitante para la inclusión]. *Alteridad*, 14(2), 184-194. https://doi.org/10.17163/alt.v14n2.2019.03
- **Artículo de revista (hasta veinte autores):** Guarderas, P., Larrea, M., Cuvi, J., Vega, C., Reyes, C., Bichara, T., Ramírez, G., Paula, Ch., Pesantez, L., Íñiguez, A., Ullauri, K., Aguirre, A., Almeida, M., & Arteaga, E. (2018). Sexual harassment in Ecuadorian universities: Content validation for instrument development. [Acoso sexual en las universidades ecuatorianas: Validez de contenido de un instrumento de medición]. *Alteridad*, 13(2), 214-226. https://doi.org/10.17163/alt.v13n2.2018.05
- **Artículo de revista (sin DOI):** López, L., & Ramírez-García, A. (2014). Medidas disciplinarias en los centros educativos: ¿Suficientes contra el acoso escolar? Perfiles Educativos, 36(145), 32-50. https://bit.ly/37Xd5mw

b) Libros y capítulos de libro

- **Libros completos:** Cuéllar, J.C., & Moncada-Paredes, M.C. (2014). *El peso de la deuda externa ecuatoriana*. Abya-Yala.
- **Capítulos de libro:** Padilla-Verdugo, J. (2014). La Historia de la Educación desde los enfoques del conocimiento. In E. Loyola (Ed.), Ciencia, Tecnología y Sociedad (CTS). *Miradas desde la Educación Superior en Ecuador* (pp. 107-128). Abya-Yala. https://bit.ly/3etRnZH

c) Medios electrónicos

- Aunión, J. (2011, marzo 12). La pérdida de autoridad es un problema de toda la sociedad, no es específico del aula. *El País*. https://bit.ly/2NlM9Dp

Normas para epígrafes, tablas y figuras

Los epígrafes del cuerpo del artículo se numerarán en arábigo. Irán sin caja completa de mayúsculas, ni subrayados, ni negritas. La numeración ha de ser como máximo de tres niveles: 1. / 1.1. / 1.1.1. Al final de cada epígrafe numerado se establecerá un retorno de carro.

Las tablas y figuras deben presentarse incorporadas en el texto en Microsoft Word® ubicadas en el sitio en el que los autores consideren que deben estar. Se emplearán únicamente cuando sean necesarias e idóneas, debiendo limitarse su uso por cuestiones de espacios (máximo 6 entre tablas y figuras). Ambas deben ser enumeradas en arábigo y tituladas con la descripción de su contenido. Si la fuente de la tabla o figura no fuera de elaboración propia, los autores deberán incorporar al pie de la tabla o la figura la fuente de la que se extrae [por ejemplo, Source: Romero-Rodríguez (2016, p. 32)].

Las tablas deben estar elaboradas en el propio documento de Microsoft Word®, por lo que no se aceptarán tablas cortadas y pegadas de otros documentos que no puedan ser editados en el proceso de diagramación. Las figuras, además de ser incorporadas en el documento de Microsoft Word®, deberán ser enviadas como material complementario al momento del envío en el OJS de «Alteridad», debiendo tener una calidad superior a 600 dpi, en archivos de tipo TIFF, JPEG o PNG.

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