

Authors:

Paula Guerra, PhD in Education¹

Ignacio Figueroa, Master in Cognitive Development

Centro de Desarrollo Cognitivo (Cognitive Development Centre)

Universidad Diego Portales. Santiago. Chile

Grajales 1746 Santiago. Chile

Word count: 6970

Action-Research and Early Childhood teachers in Chile: analysis of a teacher professional development experience ²

In early childhood education, teacher professional development is crucial due to the impact of teachers on children's learning. This study presents the experience of action-research included in a teacher professional development program focused on improving pedagogical interaction from a sociocultural perspective. From 2012 to 2015, three cohorts of early childhood teachers from nursery schools located in vulnerable contexts participated in this program. These teachers developed intervention plans according to the action-research framework. In this report, these plans are analysed through a qualitative content analysis. Reports made by the participants and interviews with three tutors are also analysed. The results of the intervention plans show that most of them are focused on teacher professional development using video supported reflection to enhance the quality of interaction with children. In the reports, teachers identified important improvements in their skills, knowledge, beliefs and practices, and developed critical reflection on the process. Tutors found some problems during the program, which took them into a reflection process that led to transformations in their practice. These results are discussed in the context of a neoliberal society that might interfere with the development of alternative programs.

¹ Corresponding author paula.guerra@mail.udp.cl

² Publicado en Guerra, P., & Figueroa, I. (2017). Action-research and early childhood teachers in Chile: analysis of a teacher professional development experience. *Early Years*. <http://doi.org/10.1080/09575146.2017.1288088>.
Disponibile en <http://www.tandfonline.com/doi/full/10.1080/09575146.2017.1288088>

Keywords: mediation criteria; professional learning communities; professional learning.

Introduction

Over the last 25 years, high-quality preschool education has been shown to have a strong and positive effect on children's development (Barnett 1998; Camilli et al. 2010; Cortázar 2015; NICHD 2005; NICHD ECCRN 2000). These studies have identified different variables that emerge as relevant features of high-quality preschool education. One of them refers to the role of teachers in the classroom, which is considered one of the most relevant proximal variable in children's development (Burchinal et al. 2010; Dunn 1993; Eurofound 2015; Howes 1997; NICHD ECCRN 2002). The quality of teachers' practice and interactions with students might enhance children's development, but these practices should be continuously supported by high-quality professional development in order to achieve positive results for children. The emphasis on the role of teachers is acknowledged by the official National Preschool Curriculum of Chile, which fosters a mediated teaching practice that enriches the learning process. In these documents, teachers are considered as reflective and active inquirers involved in a spiral of research and analysis of the teaching and learning process (Minister of Education, 2001).

Despite the national consensus about the importance of these topics, preschool teachers' practices would appear to limit the implementation of these intentions. Evidence of these deficiencies in the Chilean context are the reports from Strasser, Lissi, and Silva (2009) and Herrera et al. (2005), who identified a great predominance of non-instructional practices (e.g., non-structured games without supervision or teacher mediation, snacks, and behavioural management), few activities related to reading, and a complete lack of vocabulary development tasks.

Furthermore, these studies can be complemented with the results obtained from the Chilean National Teacher Evaluation System. This includes several instruments, such as a portfolio composed of a class video and a written analysis. These products provide evidence of the teachers' practices and reflection, and they are evaluated by trained teachers using a rubric. Based on the results, teachers are evaluated as: outstanding, competent, basic or unsatisfactory. Sun et al. (2011) present an analysis of the preschool teachers' results in which high-quality pedagogical interaction is achieved only by 40% of the teachers, who were evaluated as competent or outstanding, while

their reflective abilities were not fully developed given that only 30% of preschool teachers analysed teaching in a deep and holistic way, 40% were able to reflect on the success of a class and only 20% acknowledged the different factors related to students' learning in their reflection

In this context, teachers' professional development should be an important aspect to ensure the quality of preschool education. Unfortunately, as Borko (2004) claims, current professional development is inadequate for the actual needs of the teaching and learning process. This might be related to a traditional teaching model that is adopted by in-service teacher education, where teachers are considered as passive receptors of knowledge developed by experts, with a limited role in their own professional learning process (Lieberman, 1995; Buysse, Sparkmany, and Wesley, 2003).

Reports describing the Chilean and Latin American situation have shown that a significant percentage of in-service teacher education has focused on curricular and didactic upgrading, under the assumption of "deficit" in teachers' knowledge and skills. This situation reflects that in-service teacher education might be based on a compensatory logic rather than being regarded as only one important element of the teacher professional development process. (Ávalos, 2007; OREALC/UNESCO, 2013).

High-quality professional development programs have been described as experiences strongly linked with practice and reflection, which include participants' needs and interests, guided by specialized professionals that give continuous support and feedback (Eurofound 2015). According to the Eurofound report (2015), these experiences increase the participants' pedagogical awareness and professional comprehension and, through a focus on reflective practice, the identification of strengths and weaknesses in daily pedagogical practice. The improvement of these abilities might foster a redefinition of teachers' roles that leads to a change in their practices and strategies towards children and their families.

In order to promote an alternative perspective of professional development, a two-year program for early childhood teachers was developed. It was called "Learning Mediation Strategies from the perspective of action-research as an approach to teacher education", and it was focused on the promotion of mediated learning in the context of the action-research process. From a sociocultural perspective, in which human mental activities are determined by social, cultural, and historical factors and reflect a dynamic interdependence between the social and individual process (John-Steiner and Mahn, 1996; Vygotsky, 1988), the aim of this program was to foster the teachers'

role as mediators of learning. This means that teachers were expected to select and organize the stimuli from the environment in order to foster the learners' cognitive skills, guided by pedagogical aims and the cultural demands of the context (Feuerstein, 1990). This idea is an essential aspect of the Theory of Cognitive Modifiability in which "modifiability is considered to be the basic condition of the human organism, and the individual's manifest level of performance at any given point in development cannot be regarded as fixed or immutable, much less a reliable indicator of future performance" (Feuerstein, Falik, Rand and Feuerstein, 2006, 6). The program was based on a reflective and collaborative construction of pedagogical tools using action-research as the main approach for the analysis of teaching practices. In this dynamic, teachers were involved in a reflective spiral of planning, acting, analysing, reflecting, and re-planning and so on (Kemmis and Wilkinson, 1998), that allowed deep analysis of the teachers' practice in order to develop higher quality interactions with children. This process was carried out within two contexts: video supported reflection in the first year and professional learning communities in the second year. Video supported reflection consists in a teacher's recorded lesson and a self-reflection on this performance. Tutors study these materials and provide feedback based on their analysis. In the same fashion, professional learning communities are groups of teachers that develop a shared and collaborative reflection about their practices. Both contexts provide a collaborative perspective: in the first one, there is a one-to-one relationship where teachers reflect on their practices in close collaboration with their tutors, while in the second case a collective space provides support and active participation in the analysis of teachers' practices.

Action-research

New alternatives to address the sociocultural dimension of teacher education have emerged. One of these is action-research. As we understand it, action-research provides teachers with the tools to investigate their own practices in a broader sense (Carr and Kemmis, 1986). In Chile, action-research was a relevant strategy for popular education during the dictatorship in the 80s. Nowadays, action research is linked to reflection and enquiry in the standards for early childhood teachers, but it is not among the main tools for teacher development. This may reflect the predominance of individual teacher improvement, instead of the collective agency that action-research would foster.

Action-research is defined as the study of a social situation with a view to improving its quality (Elliott 1994). This process generally follows a spiral sequence that involves planning,

identification of facts, analysis, implementation and evaluation (Lingard, Albert, and Levinson 2008). Kemmis and McTaggart (2005) have pointed out that each step is accomplished in a better way by collaboratively creating participatory processes of action-research. Besides, action-research enables teachers to become ‘knowledge generators rather than appliers of knowledge generated by outsiders’ (Elliott 1994, 133).

According to Carr and Kemmis (1986), action-research involves a deep analysis of teachers’ practices in order to improve and understand them, but it also aims to improve the situation in which the practice takes place. In that respect, action-research is more than an analysis of a pedagogical technique; it provides teachers with the tools to investigate their own practices in a broader sense.

In this respect, action-research might foster change in a broad range of situations, not limited to the improvement of teachers’ practices, but also including the promotion of changes in the quality of social relationships established in the schools. For example, in a report of an action-research experience, Davis and Cooke (1998) show that teachers and parents changed the hegemonic paradigm of social structure and decision-making process that has excluded relevant voices in the educational context. In this experience, adults were models for children in the promotion of democratic participation, since they became aware of the need to challenge the traditional relationship between teachers and families and felt empowered to set up a democratic school community. The emphasis on participation described in this report reflects a core feature of action-research in which all participants are regarded as peers and they experience, maybe for the first time, that their voices are valid and relevant. This situation might lead participants to become increasingly empowered as they are treated as equals (Boog, 2003).

Chilean early childhood educational system

Chile has a strong tradition in the provision of education for children between birth and 5 years, with an enrolment rate of 50.3% (Minister of Social Development, 2016) which reflects an important increment in the number of nurseries due to the policies developed by the previous governments. Besides, since 2013, the enrolment of 5-year-old children in kindergarten is compulsory.

The Chilean early childhood educational system is mainly financed by funds from the State, through three modalities: schools for children from 4 to 5 years; programs from the National Board

of Nursery Schools (JUNJI as its acronym in Spanish) working with children from 0 to 4 years; and programs from Integra Foundations that also work with children from 0 to 4 years (Peralta, 2011). In the case of schools, there are two types: public, administered by municipalities, and private, subsidized by the State.

Despite this increase in the number of nurseries available, the quality of preschool education has not improved accordingly. Most classrooms remain as places that do not provide high-quality pedagogical experiences as reported earlier in this paper. National concern about this issue is growing and has been focused on structural factors, such as curricular benchmarks, adult-child ratios or the standards for early childhood teacher programs (Alarcón et al. 2015).

Early childhood education is part of the Chilean educational system. For the last 35 years this system has been shaped by a series of neoliberal policies, which are focused on accountability, free school choice by a voucher system, teachers' salary policies linked to schools' results in national standardized tests, and an extensive, standardized student evaluation system. Consequently, some of the features of this system have become a matter of concern in early childhood education. Peralta (2011) acknowledges a tendency to instrumentalize this level as a result of the competition that emerges in a Standardized-Test-Oriented system. In that sense, the focus of early childhood education has been moving to a restricted vision of learning outcomes due to the relevance of standardized tests. In this situation, Chilean early childhood education is required to develop an early scholarisation process focused exclusively on the areas of language and mathematics instead of an integral approach to child development (Pardo and Woodrow 2014), although this contradicts the emphasis of the National Curriculum for this level.

Methodology

Early childhood teacher development program: "Learning Mediation Strategies from the perspective of action-research as teacher education proposal"

This study presents the experience of action-research included in a teacher development program focused on improving pedagogical interaction from a sociocultural perspective. From 2012 to 2015, three cohorts of early childhood teachers participated in this program. They were part of a private non-profit institution that serves children from 3 months to 4 years old living in poverty and under vulnerable conditions.

One of the main objectives of the program has been promoting skills and knowledge related to learning mediation, from an inclusive vision of the pedagogical processes, using action-research as the main methodology for reflecting on teaching practices. Another main objective of the program is to foster the professionalization of early childhood teachers, who were regarded as designers, implementers and evaluators of the curriculum, with a relevant role in the transformation and construction of applied knowledge. This approach is necessary because teachers were part of an institution founded during the 90s which has been changing, from a child-care welfare perspective, towards an educational approach.

This was a two-year program with two main focuses. The first year was focused on teaching practices that allow the appropriation of the mediating role. The second year was focused on the reflective process that arises from the development of professional learning communities in order to promote changes at the different levels of the educational system (family, nursery school, teachers, etc.) through participation, feedback, and teamwork. The program methodology involved onsite and online work sessions, both configured as a dialogical, constructive, and reflective experience. Two on-site sessions were carried out in one year. Each session lasted 32 hours distributed in five days and was held outside the nurseries in a central place with easy access to participants. Online sessions were carried out, in the first years, as a video supported reflection process which included three video recordings of teachers' practices uploaded to a Moodle platform. Tutors provided feedback about the videos, working as 'critical friends', bringing new insights and ideas that would promote teachers' reflection on their own practice (Kemmis and McTaggart, 1988). This feedback process enabled tutors to observe the appropriation and application of theoretical tools developed in the classroom. In addition, this allows group analysis and discussion to be generated during onsite sessions, in order to clarify and systematize the core concepts promoted in this program.

Action-research was chosen as the method for developing teachers' practices by a collaborative reflection practice. In order to achieve this process, during the first year, onsite work sessions were focused on the mediation process in teaching practice and online work sessions were organized as video supported reflection. The reflection linked to the video supported reflection process contributes to the development of self-awareness and long-term transformational pedagogical

practices (Kemmis, 2007). The video supported reflection cycle was related to action-research as follows (see Figure 1):

- Teachers planned and implemented a lesson focused on a mediation process. Lessons were video recorded and uploaded to a Moodle platform.
- Teachers evaluated and reflected on the teaching experience by submitting an analytic log about the mediated interactions.
- The tutor / ‘critical friend’ provided feedback on the analysis of the practice, helping to problematize the experience.
- Teachers prepared and implemented the lesson again.

[Figure 1 near here]

In the second year, the approach to teaching practices remained. During the onsite work sessions professional learning communities were also implemented, in order to promote the sustainability of the experience. These communities were arranged according to teachers’ locations, having monthly meetings, in which tutors participated by using videoconference software (e.g.: Skype, Google Talk, etc.), due to the distance between the tutors’ and the teachers’ locations. These sessions aimed to reflect on pedagogical problems and develop intervention plans according to the action-research framework. In the second year, the action-research cycle was organized as follows (see Figure 2):

- Teachers in the professional learning communities defined the main problems of teaching practice
 - Teachers reflected on those problems
 - Teachers collaboratively prepared action plans
 - Every teacher, individually, implemented the action plans in their nursery schools
 - Teachers collectively analysed and evaluated the action plans results

[Figure 2 near here]

It was expected that in the first year teachers would develop strong knowledge and practical experience about the meaning of mediation by engaging in an action-research approach, supported by onsite sessions and video supported reflection. In the second year, it was expected that professional learning communities would develop action plans according to an action-research framework that was focused on teaching practice and collaborative reflection.

Sample

This study analyses the experience of 70 early childhood teachers from the first cohort of the program that in the second year comprised ten professional learning communities. Three tutors of the program were also interviewed. One of them is a psychologist and the other two are teachers, all of them hold a Masters in Cognitive Development and have long experience in teacher education grounded in the Cognitive Modifiability approach and Action-Research perspective. Early childhood teachers who participated in the program came from six different cities in Chile and worked in nurseries with children from 0 to 4 years who lived in vulnerable conditions. Participants were informed of the aims of this research and signed an agreement to allow the use of their material for research purpose.

Materials and analysis

In this report, ten action plans developed by ten professional learning communities were analysed and complemented with the analysis of written reports prepared by 70 participants. The reports include two sections related to an overall evaluation, challenges and aspects to improve. Three tutors were also interviewed in order to include other perspectives to deeply analyse the experience and identify some of the critical aspects of action-research practices described by Kemmis (2006). These materials were analysed through a qualitative content analysis.

Results

Results are presented in two sections. The first part focuses on the action plans developed by the participants in the context of the action-research process during the first cohort. The second part presents the reflection on action-research developed by the first cohort participants and by the tutors.

Intervention Plans

The results show that most of the intervention plans were focused on professional development using video supported reflection, replicating the main teaching strategy developed by the program. This process was carried out by the participants in their nursery schools, and was focused on the assistant teachers who co-teach in their classrooms. Participants developed a series of materials to improve comprehension of a topic, for example, a guideline for teaching practices and a portfolio to generate process evidence. This work is linked to promoting pedagogical leadership in the nursery schools.

The video supported reflection was focused on the quality of interaction with children, based on the theoretical framework of mediated learning experience that was also the main conceptual topic developed in the program. It was possible to observe that action plans were focused on improving the quality of interactions, especially those related to mediation criteria.

Other interventions were aimed at family involvement in education, in order to encourage parents to be involved in promoting learning-mediated experiences at home. The strategies developed with families include an informative role using flyers, information panels, and written communication, and a participative role holding workshops and meetings.

Reflecting on action-research process: participants and tutors' voices

To understand participants' perception of the action-research process, written reports were analysed. These reports show that the participants give different meanings and interpretations to action-research. These ideas can be organized according to the rationale that underlies the reflection made by the participants. In that respect, no technical rationale was found, only practical and critical one

Identifying a practical rationale, some participants relate action-research to the development of the skills that were fostered in this process, such as self-observations or reflection on practice, as shown in the following quotes:

“Research is like a reflective practice that allows to guide and evaluate the decisions”.

“Action-research is a way to develop and hold a closer look to the educational process through the problematization. The look turns toward us (the teachers) and we understand the key role of our actions. Then we learn to accept responsibility”.

For other participants, these practical implications were linked to an increase in the relevance of their work to local reality, based on what is observed in the classroom, instead of external guides provided by the central administration. Some of these ideas are shown in the next quote:

“Through action-research ... my pedagogical practice was more relevant, as the decisions were made based on the reality...”

For some teachers, action-research had an impact on different levels: teachers’ knowledge and practices, and eventually children’s learning. Participants recognized a change in their teaching-learning ideas that influenced their practices, which were more relevant and focused on promoting active learning and developing students’ potential. Children’s learning could also be fostered by action-research by promotion of change in some skills and even in their lives, as shown in the following quotes:

“If we apply this from the early years, I’m sure we can have more curious children, able to transform their futures...”

“Our role as action-researchers is relevant to the development of our practices, because decisions are based on our own experience. This promotes better (and) more relevant teaching processes ... based on reflection on curriculum implementation. This generates improvement that might be implemented in the classroom”.

A critical rationale was also identified in the participants’ reports. Some of them were focused on the empowerment and leadership that were promoted by action-research. This is linked to the pedagogical leadership implied in the action plans developed by the participants, and with a process of validation of teachers’ voice that might be related to a professionalization process, which is especially relevant in the context of a hierarchical institution, as one teacher stated:

“We have started to validate and trust the opinion of the educator ... because for many years we were passive acceptors”

This is also related to the generation of practical knowledge articulated with theory, fostered by the process of action-research. Participants perceived that valid knowledge emerges from this process, which is closely related to the theory. This situation is another form of professionalization, in terms of recognizing other teachers' roles. This is related to the following extract:

"We made decisions to transform the process and generate practical knowledge"

Other reports identified an ethical implication of action-research that is related to the analysis of the values and aims of education, especially those transmitted by teachers' practices. In that respect, participants understood the broader impact of teaching, as shown in the following extract:

"Action-research is an ethical enquiry, in which we, as teachers, reflect on how to teach in a consistent and coherent way and provide the values and aims of education at the same time".

Finally, participants also mentioned that through action-research they were able to become critical agents, especially about educational policies, as shown in the following extract:

"(We) transform ourselves into critical agents who critically question childhood policies, in order to improve our practices".

In relation to the tutors' perspective, different topics were addressed. One of them was related to the difficulties perceived during the action-research process. These were clearly focused on two levels of problems: the relation with the institution at the regional and central administration and the participants' misunderstanding of some steps of the action-research cycle.

Participants' main difficulties, both in the first and second year of the program, were linked to specific processes, like problematization and evaluation. They were able to make perfect diagnoses of the situation, but they needed constant supervision to elaborate the problems, which means developing a deep understanding of them, analysing the weaknesses and strengths, and focusing on the proximal and distal causes. Besides, participants also needed support to evaluate the action-research cycle, not only in methodological aspects, but also in the reflection necessary to understand the results. This was especially relevant during the information gathering process, when teachers needed supervision and constant feedback on the process.

The relation with the institution was another main difficulty of the process. The institution misunderstood some of the action-research features and proposed a normative perspective. It was

expected that the action-research approach would be implemented, since it is mentioned in curriculum documents. For the institution, teachers should implement some research about their practices. This instrumental purpose of action-research had to be re-framed by the tutors' team, due to the different aspects that were emerging during the process, which were far from this first purpose. Fortunately, people in the institution were willing to make some changes by allowing and promoting some of the actions implemented during the program. This action-research process also meant an institutional change, since some of the hierarchical features of the institution were being questioned.

One example of these difficulties in the teacher's process was described by one of the tutors. In her group, during on site work sessions, some topics from the action-research plans emerged, but during the work in the professional learning communities, new topics emerged. The hierarchical structure of the institution was evident when teachers thought they should keep the initial topics and not the new ones, showing a tendency to prioritise the topics defined by the tutor. Fortunately, this was a well-developed group and it was easy to re-empower them, which was helped by the tutor setting a necessary distance.

These difficulties acknowledged by the team of tutors were constantly subject to reflection, which led to some changes in the way the program was organized. A key point in this process was the experience obtained by developing the program. This was one of the main contributions to promote changes. This process of change was supported by a metacognitive process in the team and the practice of continuous reflection that allowed some critical processes to be identified. For example, it was crucial to modify the tutors' role in order to allow new leadership to emerge from the participants. Moreover, tutors perceived that the team adopted an enquiring approach during the process, which resulted in a continuing reflection on their own practice in the onsite and online sessions.

Regarding changes related to teachers, the tutors identified important transformations. They observed a process of empowerment, related to teachers' perception of being agents of social change, mentioning that teachers become aware that they are responsible for current and future social conditions. The change at a practical level was also evident for tutors, especially in the quality of interaction fostered by the teachers.

Finally, the tutors perceived a change in the idea of action-research, not only from the teachers, but also from the regional and central administration. At the beginning of the program, action-research was strictly focused on the classroom and closely related to the standardized evaluations performed in the classroom. This perspective represented a prescriptive vision of action-research linked to the demands of the Chilean Curricular Policies. This image changed to a broader perspective on action-research, based on a critical and ethical consideration of the teaching process.

Two years after the program was implemented, tutors informally kept in contact with some of the participants, typically with the professional learning communities that were developed during the program. In this respect, the tutors mentioned that some of these groups had implemented actions at a regional level, like conferences with other teachers or workshops to share this experience with their colleagues. These groups have been officially recognised and have become autonomous, specifically with respect to some funds derived from the central administration to support local initiatives developed by the professional learning communities.

Discussion

This experience illustrates how action-research can be a relevant approach for early childhood teacher education. As expressed by the participants, action-research provides teachers with tools to become more reflective about their practice. They are critically involved in analysing the way they interact with children and the consequences of these interactions in children's lives and futures. These results show that action-research has not only pedagogical implications, but also critical and transformative meanings. It was observed that when teachers analysed their practices, at a superficial level, they were acquiring teaching tools, but at a deep level they learned that change begins with themselves. This was observed in the empowerment mentioned by the teachers and tutors. This process might lead to the feeling of being an agent of change and not just waiting for "others" to change, becoming "transformative intellectuals" (Giroux, 1990). Nevertheless, this process of change and empowerment also requires the institution to change. In that respect, teachers request a change because they have already changed. At a pedagogical level, since the participants have deeply analysed their practice in order to enrich it, they developed a process for appropriating these tools (Rogoff, 1997). This contributes to the empowerment of pedagogical practice, moving

it to a critical level, where an emancipator sense of education emerges. As Carr and Kemmis (1986) state, action-research is closely committed to transformation in a broader sense, which includes an organizational and institutional level. In that respect, this experience is a good example of how teachers' changes can also influence institutions.

The critical implications of the action-research process were also evident in the ethical dimension addressed by the teachers. In this regard, the participants were involved in a formative experience that not only required a deep change in their pedagogical thoughts and beliefs, but also fostered an ethical commitment. As teachers changed, so did their teaching, thus they became aware of the need for their practice to be consistent. This goes beyond a pedagogical issue and emerges as a social responsibility linked to the teachers' role, especially in the context of high vulnerability and poverty.

Action-research has been used in early childhood education (Fisher and Wood, 2012; Rust, 2007; Moran, 2007) with different focuses. In some cases, teachers have adopted action-research as a method to improve their teaching and to become part of a process of permanent reflection on their practices. In other cases, like this experience, action-research was a way to introduce teachers to a dynamic of analysing their interactions in the context of a teacher professional development program. In both cases, the main purpose is for teachers to become enquiring agents, who are involved in continuous reflection on their practice. Undoubtedly, teachers of all levels will benefit from this inquiring approach, and early childhood teachers in particular might have some additional positive consequences related to their professionalization. Since reflective practice and enquiry are important features of the teaching profession, action-research will be a relevant approach to provide early childhood teachers with the skills they need if they are to be seen as educational professionals.

These results show the positive implications of action-research, but they should also warn researchers about using this tool in a context of high accountability. In this respect, some tensions emerged from the analysis and information gathering in this report. The first is a tension between the aims of the team that implement action-research and the aims of the institution that commissions this methodology. In this experience, it was a dialogical process between the team and the institution, based on a negotiation of meanings about understandings of action-research. This process was also reinforced by the pressure from the teachers and the transformative sense of action-research became evident to the institution. Even though it has not been investigated, it is

possible that some dynamics inside the institution changed, especially regarding the validation of teachers' voices and the teachers' progressive autonomy. This is evidenced by the funds that some professional learning communities have received to implement some actions, but this aspect should be studied in more depth in future research.

The second tension is related to the role of action-research as reproduction or resistance. The first reflects an instrumental approach, where action-research is seen as a tool to comply with the teachers' standards related to research and reflection, in line with the main demands of neoliberal society. This perspective limits the possibilities of change and only links action-research to a technical skill that might work in the reproduction of practices, in contrast with a resistance perspective. Action-research is a way to transform society, in order to promote social justice and become more inclusive. In that respect, it can be a way to resist the standardization and accountability that characterize the neoliberal system.

This tension has also been acknowledged by Carr and Kemmis (2005), who identified some technical approaches to action-research nowadays. This tension reflects the question of 'what for?' instead of 'how?' (Kemmis 2006). In reproductive forms of action-research, the focus is on how to improve teaching in order to achieve better evaluations, while in resistant forms the aim is the transformation of the students, families and even society that can be fostered and supported by the teacher.

The third tension addressed the use of action-research: as an accountability tool or as a transformative tool. In a context of neoliberal policies, action-research might also be used as a way to improve specific instructional strategies or implement some government programs without any deep analysis (Kemmis, 2006). These situations contrast with the transformative aspect of action-research, which looks for a process that "emancipates students, teachers and societies from irrational forms of thinking, unproductive ways of working, unsatisfying forms of life for teachers or students or their families, or from unjust forms of social relations in schools or societies" (Kemmis, 2006, 463).

If early childhood teacher professional development is distant from teachers' experience, classrooms and teaching issues and if it establishes itself with an academic and reproductive perspective, there will be a disconnection between the change and the meaning of change. This

shows the need to redirect attention to the culture of teachers if the intended impact of teacher professional development is to be achieved. This focus also highlights the critical, investigative and transformative role of teachers who use action-research as a catalyst for new cultures of inclusion and plural coexistence.

References

- Alarcón, J., M. Castro, C. Frites, and C. Gajardo. 2015. "Desafíos de la educación preescolar en Chile: Ampliar la cobertura, mejorar la calidad y evitar el acoplamiento." [Preschool Education Challenges in Chile: Enlarge the Coverage, Improve Quality and Avoid Attach Effect.] *Estudios Pedagógicos* 41 (2): 287–303. doi:10.4067/S0718-07052015000200017.
- Ávalos, B. 2007. "El desarrollo profesional continuo de los docentes: lo que nos dice la experiencia internacional y de la región latinoamericana." [Teacher Continuous Professional Development: What International and Latin American Experiences Tell Us.] *Revista Pensamiento Educativo* 41 (2): 77–99.
- Barnett, W. 1998. "Long-term Cognitive and Academic Effects of Early Childhood Education on Children in Poverty." *Preventive Medicine* 27 (2): 204–207. doi:10.1006/pmed.1998.0275.
- Boog, B. 2003. "The Emancipatory Character of Action Research, its History and the Present State of the Art." *Journal of Community & Applied Social Psychology* 13 (6): 426–438. doi:10.1002/casp.748.
- Borko, H. 2004. "Professional Development and Teacher Learning: Mapping the Terrain." *Educational Researcher* 33 (8): 3–15. doi:10.3102/0013189X033008003.
- Burchinal, M., N. Vandergrift, R. Pianta, and A. Mashburn. 2010. "Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs." *Early Childhood Research Quarterly* 25 (2): 166–176. doi:10.1016/j.ecresq.2009.10.004.
- Buysse, V., K. Sparkman, and P. Wesley. 2003. "Communities of Practice: Connecting What We Know with What We Do." *Exceptional Children* 69 (3): 263–277. doi:10.1177/001440290306900301.
- Camilli, G., S. Vargas, S. Ryan, and W. Barnett. 2010. "Meta-analysis of the Effects of Early Education Interventions on Cognitive and Social Development." *Teachers College Record* 112 (3): 579–620.
- Carr, W., and S. Kemmis. 1986. *Becoming Critical: Education, Knowledge and Action-research*. Geelong: Deakin University Press.
- Carr, W., and S. Kemmis. 2005. "Staying Critical." *Educational Action Research* 13 (3): 347–358. doi:10.1080/09650790500200316.
- Cortázar, A. 2015. "Long-term Effects of Public Early Childhood Education on Academic Achievement in Chile." *Early Childhood Research Quarterly* 32: 13–22. doi:10.1016/j.ecresq.2015.01.003.
- Davis, Julia, and Sue Cooke. 1998. "Parents as Partners for Educational Change: The Ashgrove Healthy School Environment Project." In *Action Research in Practice: Partnerships for Social Justice in Education*, edited by Bill Atweh, Stephen Kemmis, and Patricia Weeks, 59–85. London: Routledge.
- Dunn, L. 1993. "Proximal and Distal Features of Day Care Quality and Children's Development." *Early Childhood Research Quarterly* 8 (2): 167–192. doi:10.1016/S0885-2006(05)80089-4.

- Elliott, J. 1994. *La investigación-acción en educación [Action-research in Education]*. Madrid: Editorial Morata.
- Eurofound. 2015. *Working Conditions, Training of Early Childhood Care Workers and Quality of Services – A Systematic Review*. Luxembourg: Publications Office of the European Union.
- Feuerstein, Reuven. 1990. “The Theory of Structural Cognitive Modifiability.” In *Learning and Thinking Styles: Classroom Interaction*, edited by Barbara Presseisen, 68–134. Washington, DC: National Education Association.
- Feuerstein, R., L. Falik, Y. Rand, and R. Feuerstein. 2006. *The Feuerstein Instrumental Enrichment Program*. Jerusalem: ICELP Press.
- Feuerstein, R., L. Falik, Y. Rand, and R. Feuerstein. 2006. *The Feuerstein Instrumental Enrichment Program*. Jerusalem: ICELP Press.
- Fisher, J., and E. Wood. 2012. “Changing Educational Practice in the Early Years through Practitioner-led Action Research: An Adult–Child Interaction Project.” *International Journal of Early Years Education* 20 (2): 114–129. doi:10.1080/09669760.2012.715400.
- Giroux, H. 1990. *Los profesores como intelectuales. Hacia una pedagogía crítica del aprendizaje [Teachers as Intellectuals: Towards a Critical Pedagogy of Learning]*. Barcelona: Ediciones Paidós.
- Herrera, M., M. Mathiesen, J. Merino, and I. Recart. 2005. “Learning Contexts for Young Children in Chile: Process Quality Assessment in Preschool Centres.” *International Journal of Early Years Education* 13 (1): 13–27. doi:10.1080/09669760500048253.
- Howes, C. 1997. “Children’s Experiences in Center-based Child Care as a Function of Teacher Background and Adult: Child Ratio.” *Merrill-Palmer Quarterly* 43 (3): 404–425.
- John-Steiner, V., and H. Mahn. 1996. “Sociocultural Approaches to Learning and Development: A Vygotskian Framework.” *Educational Psychologist* 31 (3–4): 191–206. doi:10.1207/s15326985ep3103&4_4.
- Kemmis, S. 2006. “Participatory Action Research and the Public Sphere.” *Educational Action Research* 14 (4): 459–476. doi:10.1080/09650790600975593.
- Kemmis, Stephen. 2007. “Epilogue: A Radical Proposal.” In *Enabling Praxis: Challenges for Education*, edited by Stephen Kemmis and Tracy Smith, 287–295. Rotterdam: Sense Publishers.
- Kemmis, S., and R. McTaggart. 1988. *Cómo planificar la investigación-acción [How to Plan Action- research]*. Barcelona: Alertes.
- Kemmis, S., and R. McTaggart. 2005. “Participatory Action Research: Communicative Action and the Public Sphere.” In *The Sage Handbook of Qualitative Research*, edited by Norman Denzin and Yvona Lincoln, 559–603. London: Sage.
- Kemmis, Stephen, and Mervyn Wilkinson. 1998. “Participatory Action Research and the Study of Practice.” In *Action Research in Practice: Partnerships for Social Justice in Education*, edited by Bill Atweh, Stephen Kemmis, and Patricia Weeks, 21–36. London: Routledge.
- Lieberman, A. 1995. “Practices that Support Teacher Development.” *Phi delta kappa* 76 (8): 591–596.
- Lingard, L., M. Albert, and W. Levinson. 2008. “Grounded Theory, Mixed Methods, and Action Research.” *British Medical Journal* 337: 459–461. doi:10.1136/bmj.39602.690162.47.
- Minister of Education. 2001. *Bases Curriculares de la Enseñanza Parvularia [Curricular Bases of Early Childhood Education]*. Santiago de Chile: Ministerio de Educación de Chile.
- Minister of Social Development. 2016. “Education: Synthesis of Results.” CASEN Survey. Accessed December 29, 2016. http://observatorio.ministeriodesarrollosocial.gob.cl/casen-multidimensional/casen/docs/CASEN_2015_Resultados_educacion.pdf

- Moran, M. 2007. "Collaborative Action Research and Project Work: Promising Practices for Developing Collaborative Inquiry among Early Childhood Preservice Teachers." *Teaching and Teacher Education* 23 (4): 418–431. doi:10.1016/j.tate.2006.12.008.
- NICHD. 2005. "Early Child Care and Children's Development in the Primary Grades: Follow-up Results from the NICHD Study of Early Child Care." *American Educational Research Journal* 42 (3): 537–570. NICHD ECCRN. 2000. "The Relation of Child Care to Cognitive and Language Development." *Child Development* 71 (4): 960–980. NICHD ECCRN. 2002. "Child-care Structure, Process, Outcome: Direct and Indirect Effects of Child-care Quality on Young Children's Development." *Psychological Science* 13 (3): 199–206.
- OREALC/UNESCO. 2013. *Antecedentes y Criterios para la Elaboración de Políticas Docentes en América Latina y el Caribe [Background and Criteria for the Development of Teacher Policies in Latin America and the Caribbean]*. Santiago: UNESCO.
- Pardo, M., and C. Woodrow. 2014. "Improving the Quality of Early Childhood Education in Chile: Tensions Between Public Policy and Teacher Discourses Over the Schoolarisation of Early Childhood Education." *International Journal of Early Childhood* 46 (1): 101–115. doi:10.1007/s13158-014-0102-0.
- Peralta, M. 2011. "Early childhood Education and Public Care Policies in Chile: A Historical Perspective to Analyze the Present." *International Journal of Child Care and Education Policy* 5 (1): 17–27. doi:10.1007/2288-6729-5-1-17.
- Rogoff, Barbara. 1997. "Los tres planos de la actividad sociocultural: apropiación participativa, participación guiada y aprendizaje." [The Three Levels of Socio-cultural Activity: Participatory Appropriation, Guided Participation and Learning.] In *La mente sociocultural. Aproximaciones teóricas y aplicadas [The Sociocultural Mind. Theoretical and Applied Approaches]*, edited by James Wertsch, Pablo del Río, and Amelia Álvarez, 111–128. Madrid: Narcea. Fundación Infancia y Aprendizaje.
- Rust, Frances. 2007. "Action Research in Early Childhood Contexts." In *Qualitative Research in Early Childhood Education*, edited by Amos Hatch, 95–108. New York: Routledge.
- Strasser, K., M. Lissi, and M. Silva. 2009. "Gestión del Tiempo en 12 Salas Chilenas de Kindergarten: Recreo, Colación y Algo de Instrucción." [Time Management in 12 Chilean Kindergarten Classrooms: Recess, Snack and a Little Teaching.] *Psykhé* 18 (1): 85–96. doi:10.4067/S0718-22282009000100008.
- Sun, Yulan, Mónica Correa, Álvaro Zapata, and Diego Carrasco. 2011. "Resultados: qué dice la Evaluación Docente acerca de la enseñanza en Chile." [Results. What the Teacher Evaluation says about Teaching in Chile.] In *La evaluación docente en Chile [The Teacher Evaluation in Chile]*, edited by Jorge Manzi, Roberto González, and Yulan Sun, 91–136. Santiago: Pontificia Universidad Católica de Chile, Escuela de Psicología, MIDE UC.
- Vygotsky, L. S. 1988. *El desarrollo de los procesos psicológicos superiores [Development of Higher Psychological Process]*. Ciudad de México: Grijalbo.

Figure 1. Action research cycle in Year 1.

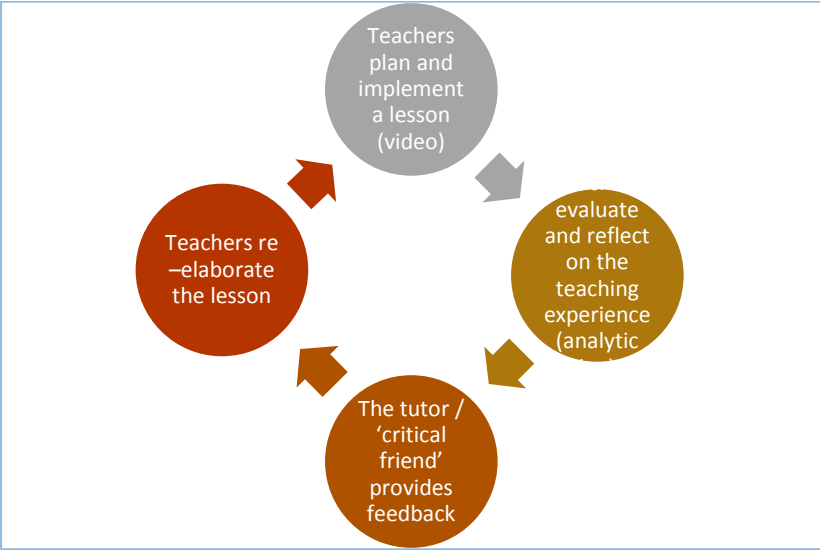


Figure 2: Action research cycle in Year 2.

