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Use of Participatory Methodologies in Pedagogical Practices in the School System

Uso de metodologías participativas en prácticas pedagógicas del sistema escolar

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Abstract

Participatory methodologies are aimed at achieving active learning through collective activities and discussion of ideas and experiences between teachers and students. The purpose of this study was to learn about teachers' notions of participatory methodologies at the conceptual, procedural, and attitudinal level. We conducted a descriptive, cross-sectional, and comparative study. A KPSI questionnaire on didactic learning strategies was applied to 81 elementary and secondary school teachers in the Biobío region of Chile. For the statistical analysis, we used the ANOVA test for repeated measures and the Student's t test to determine whether there were significant differences between the three levels of the questionnaire (conceptual, procedural, and attitudinal). The inferential analysis determined that there are statistically significant differences between the means for the conceptual and procedural levels, and between the means for the procedural and attitudinal levels. The difference implied that the procedural level was significantly better than the conceptual and attitudinal levels. The results suggest a lack of implementation of participatory methodologies in the classroom as a consequence of the traditional teaching-learning model, resistance to pedagogical change, and initial teacher training, factors that hinder the use of participatory methodologies in the classroom.

Keywords: teaching practice, educational innovation, vocational training, teaching technique, participatory methodologies

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Resumen

Las metodologías participativas apuestan por un aprendizaje activo mediante actividades colectivas, discusión de ideas y experiencias entre docentes y estudiantes. El propósito de este estudio fue conocer las nociones sobre metodologías participativas de profesores a nivel conceptual, procedimental y actitudinal. Se realizó un estudio descriptivo, transversal y comparativo a 81 profesores de enseñanza básica y media de la Región del Biobío, en Chile, a quienes se aplicó el cuestionario KPSI sobre estrategias didácticas del aprendizaje. Para el análisis estadístico se utilizó la prueba ANOVA de medidas repetidas y la prueba *t student* para determinar si existían diferencias significativas entre los tres niveles del cuestionario (conceptual, procedimental y actitudinal) y, entre estos en función de los años de experiencia y ciclo escolar en los que ejercían los docentes participantes. El análisis inferencial determinó que existen diferencias estadísticamente significativas entre las medias del nivel conceptual y nivel procedimental y entre las medias del nivel procedimental y actitudinal. La diferencia implicó que el nivel procedimental fue significativamente mayor que los niveles conceptual y actitudinal. Los resultados plantean una falta de implementación de metodologías participativas en el aula producto del modelo tradicional de enseñanza-aprendizaje, la resistencia al cambio pedagógico y la formación inicial docente, factores que dificultan la implementación de metodologías participativas en las salas de clase.

Palabras clave: práctica pedagógica, innovación pedagógica, formación profesional, técnica de enseñanza, metodologías participativas

Introduction

The concept of quality education has generated fierce public debate in our country in recent decades. In this context, the demands of teaching work in the last few decades have undergone profound changes, which require greater professionalization of the role of teachers. Current education seeks to promote active learning by students in various dimensions (cognitive, ethical, and emotional, among others), as well as to facilitate the understanding and application of the knowledge taught (Huber, 2008). As a consequence, the quality of teacher training and continuous education is essential for the improvement of learning. Active learning consists of methodological approaches where the student is the protagonist and knowledge is constructed interactively with peers and based on contextual experiences (Silberman, 2005).

The contemporary educational paradigm based on the hypotheses of researchers such as Dewey, Piaget, Vigotsky, and Gardner proposes active learning based on previous ideas, mental structures, and meaningful context. Its implementation therefore requires innovative didactic tools that enrich and enhance teaching-learning processes (Mesquita et al., 2015). However, the development of this new constructivist paradigm in the Chilean education system has not been reflected in substantial improvements in student performance (OECD, 2017). In addition to this, teachers produce poor performances in their assessments, specifically in two dimensions: class structure and pedagogical interaction (Mineduc, 2016). One possible answer to this phenomenon could be the infrequent use of innovative didactic tools such as participatory methodologies (PM), which allow student-teacher interaction in the classroom to be improved and invite the student to integrate what has been learned into previous knowledge and use it to initiate new learning (Rodríguez-Casado & Rebolledo-Gámez, 2017).

Literature Review

Constructivist teaching cycles

The traditional teaching model, favoring expository and memory-based classes, and using reproduction of content, is characterized by extensive sessions with copious theoretical content, where the student is a simple spectator and does not have any participation in their own teaching-learning process (Figueroa et al., 2017). This makes the school a rigid, undynamic, and heavily academicist system, where knowledge is acquired through observation, repetition, and memorization.

As an alternative to this model, new methodological proposals have emerged in recent decades based on the constructivist approach, centered on students as stakeholders in their own learning, and where innovative methodological proposals promote a good classroom climate and allow teacher-student and peer interaction to be improved (Rodríguez et al., 2017). Meaningful learning is also generated through methodologies that facilitate conceptual change and the application of the knowledge acquired.

In the Chilean educational system, the constructivist model is developed within a class structure established by the Ministry of Education, both in its technical documents and in its teacher assessment system, which is based on three moments in time: beginning, middle, and end (Mineduc, 2015), and its objective is to be able to identify the pedagogical aim of each stage of the class, including typical elements of the process, such as contents, strategies, activities, and forms of assessment (Martinic & Villalta, 2016). This format of class organization has enabled the continued existence of the traditional behaviorist teaching model (transmission-reception model) in the Chilean educational system, which assumes that knowledge can be easily transferred from one person to another, ignoring the dynamics of knowledge construction.

One alternative to the traditional classroom structure is constructivist teaching (or learning) cycles, in which didactic strategies play a key role. In the words of Larriba (2001), a teaching cycle is a set of educational principles that define the educational objectives and guide the teaching-learning processes generated in the classroom, where the teacher follows didactic strategies that motivate students to acquire knowledge and use it in a functional way in different contexts.

Participatory or active methodologies

Because of the process of transformation through which various societies are currently going, it is essential to rethink and reformulate initial training models in order to meet the demands of the knowledge society (Orozco et al., 2017). In this context, since the creation of the European Higher Education Area (EHEA), higher education institutions have focused their efforts on improving the quality of teaching, and reviewing and updating their programs to establish teaching practices that incorporate innovative methodologies (Rodríguez Sánchez, 2011) that enable a transition from a teaching paradigm to one centered on learning. This involves no longer understanding learning as an exercise in information storage, but as a process of acquiring skills focused on cooperative work (Ortiz, 2015).

The use of participatory methodologies is proposed to implement this paradigm shift. These consist of pedagogical activities which are aimed at making students the generators of their own learning. The main objective of this type of methodologies is to be able to guide education towards action and increase the degree of satisfaction and enrichment in the educational process, both for teachers and students (Hernández & Cuahonte, 2018). Teaching methodologies can be grouped based on various criteria such as organizational modality or number of hours of preparation (Fortea, 2019). However, one of the most general systems is that proposed by Fernández

(2006), who classifies the methodologies into three groups: based on lectures, oriented towards teamwork, and using individual work. In line with Fernández' suggestions, the authors propose the following examples of participatory methodologies for group and individual work, based on the definitions of these methodologies made by scholars such as Imbernon and Medina (2008), Gabarda Méndez et al. (2019), and Bellluschi (2020):

1. Participatory methodologies for individual work: guided study, demonstration, previous organizers, key concepts (concept network).

2. Participatory methodologies for group work: role-playing games, debate, problem-based learning (PBL), peer-to-peer learning, brainstorming, case method.

Active methodologies improve the understanding of information and promote the development of higher-order cognitive skills and teamwork. In spite this, they are still used infrequently. It is therefore important to incorporate them as an educational option in both secondary and higher education. In this respect, various studies have described the implementation of participatory methodologies in different courses (Rodríguez-Casado & Rebolledo-Gámez, 2017; León-Díaz et al., 2020; Díaz, 2021), highlighting positive perceptions on the part of the students regarding these types of activities, in addition to increased motivation and performance, as well as improvement in teaching practices.

According to the literature presented, certain questions emerge regarding teachers' knowledge of these didactic strategies at different educational levels. What notions do teachers have about participatory methodologies? Is there a relationship between the conceptual knowledge that teachers claim to have about the methodologies and their perception of how they implement them in the classroom? What attitudes do teachers have regarding the use of participatory methodologies in the classroom? Are there differences in the use of participatory methodologies according to the teachers' experience and the school level at which they work?

Considering this, the aim of this study is to examine notions about participatory methodologies among elementary and secondary school teachers in the Biobío Region of Chile at the conceptual, procedural, and attitudinal levels in order to advance research on the knowledge and application of innovative teaching methodologies to meet the needs arising from the new role of teachers. Our hypothesis is that, according to the theoretical review, participatory methodologies are not widely used in the classroom by teachers, who still follow a traditional curriculum.

Methodology

Design

Based on the ideas of Hernández-Sampieri and Mendoza (2018), this study is descriptive, cross-sectional, and comparative. It is descriptive because it seeks to characterize the phenomenon to be studied; cross-sectional, because it collects information at a single moment (at a single time); and comparative, because it is intended to establish differences between the variables studied.

Sample

A total of 81 elementary and secondary school teachers from a private subsidized school[1] in the Biobío Region of Chile participated in this study. The sample was purposive and the participants were selected within the framework of a teacher training program carried out at the school. The participating teachers were categorized in accordance with two criteria: educational level and years of experience. For the educational level criterion, the teachers were grouped into three categories according to the level at which they taught.

1. Private subsidized schools are establishments that are financed with contributions from the state and parents, through payment of a monthly fee.

The categories were: 1) preschool and elementary school (40 teachers), 2) elementary and secondary school (17 teachers), 3) secondary school (24 teachers). In the case of the criterion of years of experience, the teachers were grouped into three categories according to experience in their profession. The categories were: 1) less than 5 years, 2) between 5 and 15 years, 3) more than 15 years.

Procedure

Authorization was obtained from the school administration to conduct the research and informed consent was obtained from the participating teachers. Subsequently, in order to collect evidence on the teachers' knowledge and implementation of participatory strategies, a KPSI questionnaire on didactic learning strategies at the conceptual, procedural, and attitudinal levels was applied to the teachers.

Instrument

To collect the information, a KPSI questionnaire on participatory methodologies was developed and then validated by experts (two doctors specialized in didactics and one in learning processes), showing a reliability index of 0.95.

In the KPSI questionnaire, the conceptual level, shown in Table 1, is composed of 18 strategies to establish the conceptual level knowledge of the participating teachers on participatory methodologies. For each approach (in this case, for each participatory methodology indicated), the teacher had to respond according to three categories (the one with which they most identify): 1. I know what they consist of, 2. I'm not sure what they consist of, I couldn't explain them, 3. I don't know what they consist of. The participatory methodologies for which teachers had to respond about their level of knowledge at the conceptual level in the KPSI were the following:

Table 1
KPSI questionnaire on the conceptual level

PARTICIPATORY METHODOLOGIES	
1. Preparation of projects	10. Brainstorming
2. Guided study	11. Dissertations
3.Guided debate	12. Field trips
4. Discussion	13. Project-based learning
5. Forum	14. Dramatized story
6. Demonstration	15. Poster
7. Dramatizations	16. Phillips 6/6
8. Peer-to-peer learning	17. League of knowledge
10. Case study	18. Key concepts

Source: prepared by the authors.

The level of procedural knowledge is comprised of 18 statements, the purpose of which is to establish whether teachers know how to execute or implement the strategies in the classroom. For each statement, the teacher must answer according to three categories (the one with which they most identify): 1. I know how to do it, I can demonstrate it, 2. I think I know how to do it, but I'm not sure if I can demonstrate it, 3. I don't know how to do it. The statements are the following:

Table 2
KPSI questionnaire on the procedural level

PROCEDURAL LEVEL PARTICIPATORY METHODOLOGIES	
1. Explain the development of projects	10. Describe how a brainstorming session is conducted
2. State the stages of guided study	11. Explain the objective of a dissertation
3. Describe what guided debate consists of	12. Contextualize a field trip based on the learning objective
4. Explain the stages of discussion	13. Carry out problem-based learning
5. Describe the stages of the forum	14. Explain the procedure of a dramatized story by contextualizing the content
6. Explain how to carry out a demonstration	15. Explain what a poster consists of
7. Put in order the steps of dramatization	16. Implement Phillips 6/6
8. Explain how peer-to-peer learning is coordinated	17. Describe what the league of knowledge consists of
9. State the phases of case study	18. Explain what key words consist of

Source: prepared by the authors.

Finally, the level of attitudinal knowledge was aimed at investigating the teachers' attitudes towards the implementation of participatory strategies in the classroom. Sixteen statements were prepared for this purpose. For each one of them, the teacher should respond according to three categories (the one with which they most identify): 1. I know how to put it into action and I can demonstrate it, 2. I think I know how to put it into action, but I don't know if I can demonstrate it, 3. I don't know how to put it into action. The statements are the following:

Table 3
KPSI questionnaire on the attitudinal level

ATTITUDINAL LEVEL PARTICIPATORY METHODOLOGIES	
1. I promote group collaboration when preparing projects	9. I state the importance of extraction of ideas
2. I establish constant dialogue in guided study	10. I encourage case studies
3. I generate a climate of trust in guided debate4.	11. I generate a climate of trust so they can express their ideas
5. I maintain a climate of respect and tolerance in discussion	12. I value problem-based learning
6. I promote the active participation of students in the forum	13. I promote the creation of posters
7. I give them confidence when they present a demonstration of their results	14. I promote collaborative stories
8. I prompt and highlight skills when carrying out dramatizations	15. I value the participation of the students in Phillips 6/6
9. I encourage peer-to-peer learning	16. I promote a motivating climate in the league of knowledge

Source: prepared by the authors.

Data analysis

The variables collected after the application of the KPSI questionnaire were: conceptual level on participatory methodologies (CL), procedural level on participatory methodologies (PL), and attitudinal level on participatory methodologies (AL). These variables were entered into a database in the SPSS software for statistical analysis. In order to analyze the data quantitatively, scores were assigned to each of the questionnaire response categories. The scores assigned are shown in Table 4.

Table 4
Score for each category of the questionnaire

Questionnaire level	Category	Score assigned
Conceptual knowledge	I know what they consist of	3
	I'm not sure what they consist of, I couldn't explain them I'm not sure what they consist of, I couldn't explain them	2
	I don't know what they consist of	1
Procedural knowledge	I know how to do it, I can demonstrate it	3
	I think I know how to do it, but I don't know if I can demonstrate it	2
	I don't know how to do it	1
Attitudinal knowledge	I know how to put it into action and I can demonstrate it	3
	I think I know how to put it into action, but I don't know if I can demonstrate it	2
	I don't know how to put it into action	1

Source: prepared by the authors.

The data were subsequently organized according to the school level at which the teacher worked (preschool, elementary, or secondary school) and his/her years of work experience (0 to 5 years, 6 to 15 years, more than 15 years). A descriptive analysis was carried out for the total scores on each questionnaire and for the percentages of each of the variables under study. We also used an ANOVA test for repeated measures to determine whether there were significant differences between the three levels of the questionnaire (CL, PL, and AL) and between them according to the years of experience and the school level at which the teachers participating in the study worked. The Student's t test was then used to analyze between which levels of the questionnaire there were differences.

Results

Conceptual, procedural, and attitudinal level on participatory methodologies

The measures of central tendency shown in Table 4 show that teachers have greater knowledge of participatory methodologies at the procedural level than at the conceptual level. However, the specific analysis will provide more details about the average result.

Table 5
Descriptive statistics

Score level	Mean	Standard deviation	N
Conceptual	29.25	6.99	81
Procedural	33.83	6.90	81
Attitudinal	28.57	7.16	81

Source: prepared by the authors.

The results regarding the teachers' conceptual knowledge of participatory methodologies indicate that 56% of them know about participatory or active methodologies and can explain what they consist of. On the other hand, 26% are not sure what they consist of. Finally, 17% stated that, at a conceptual level, they did not know some of the participatory methodologies present in the questionnaire. Figure 1 shows the details of each of the participatory methodologies mentioned in the questionnaire. As can be observed, more than 60% of the teachers state that they know about some of the methodologies and know how to explain them, which include project preparation, poster, dramatized story, peer-to-peer learning, case study, field trip. Meanwhile, the methodologies about which more than 60% of the participants say they do not know are the league of knowledge and Phillips 6/6. These results show that the teachers have greater knowledge about some methodologies than others, which could be explained by the curricular suggestions issued by the Ministry of Education, which emphasize the use of some methodologies over others.

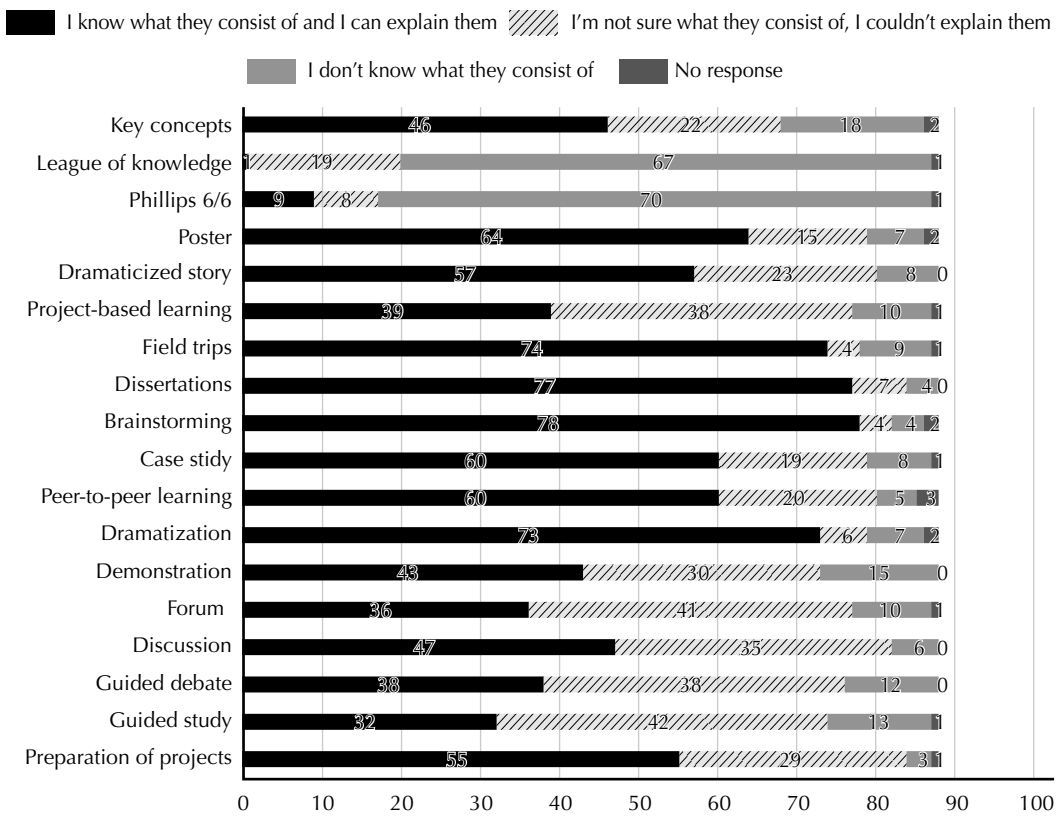

Figure 1. *Responses to questionnaire on conceptual level*

Source: prepared by the authors.

As regards the procedural level, 34% of the participants believe that they can effectively implement several of the participatory strategies. In turn, 40% think that they know how to carry out only some of the methodologies. Finally, 24% of teachers state that they do not know how to implement some of the methodologies.

Figure 2 shows the participatory methodologies at the procedural level, demonstrating that 60% or more of the participants state that they know how to implement the methodologies of field trips, dissertations, brainstorming, and posters. In turn, more than 60% of the participants declare that they do not know how to implement the methodologies of the league of knowledge and Phillips 6/6. Comparing these results with those for the conceptual level, it is clear that teachers know a greater number of participatory methodologies based on the theory and a smaller number from the procedural perspective, which could be due to the lack of diversity in the use of this type of methodologies during their classes.

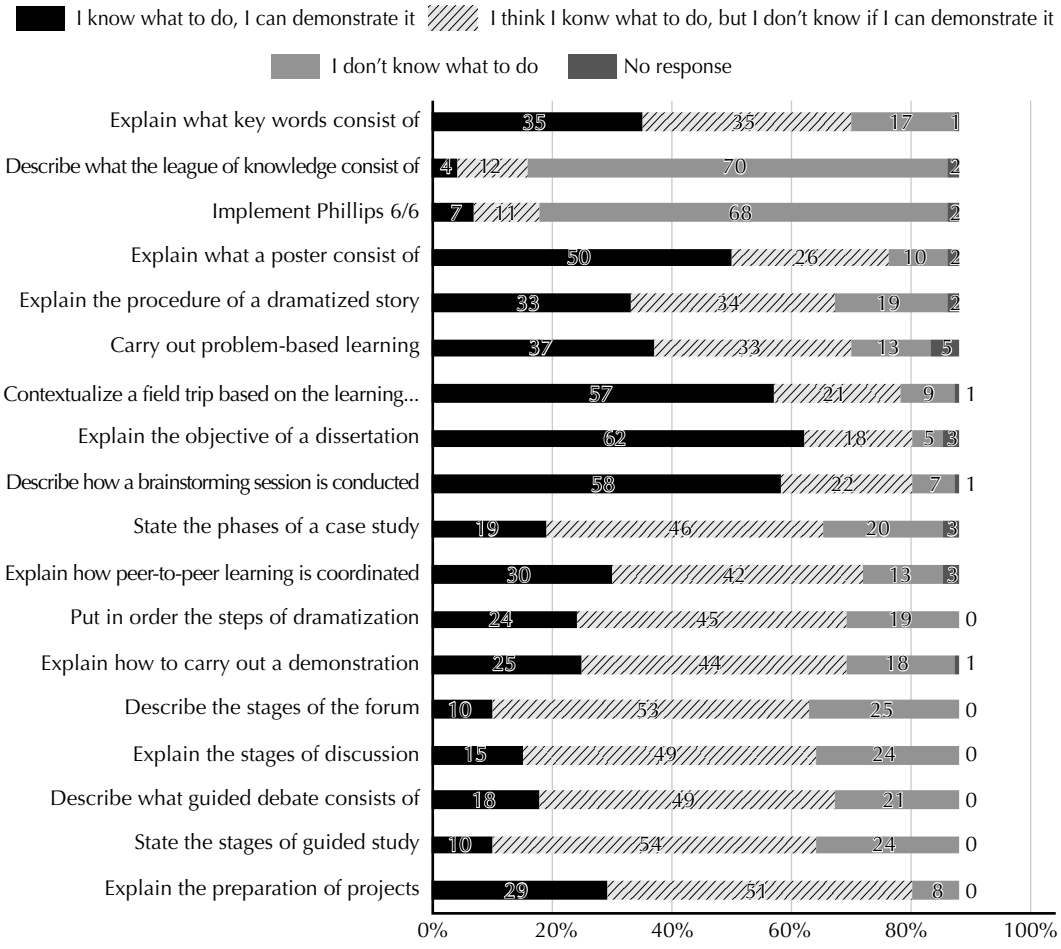

Figure 2. *Responses to questionnaire on procedural level*

Source: prepared by the authors.

With respect to the attitudinal level, an average of 44% of the teachers say they know how to implement the different participatory methodologies from an attitudinal point of view. On the other hand, 23% of the participants stated that they did not know how to put into action some of the participatory methodologies mentioned from an attitudinal perspective. Figure 3 shows the details of the responses to the questionnaire for each of the participatory methodologies in the attitudinal area.

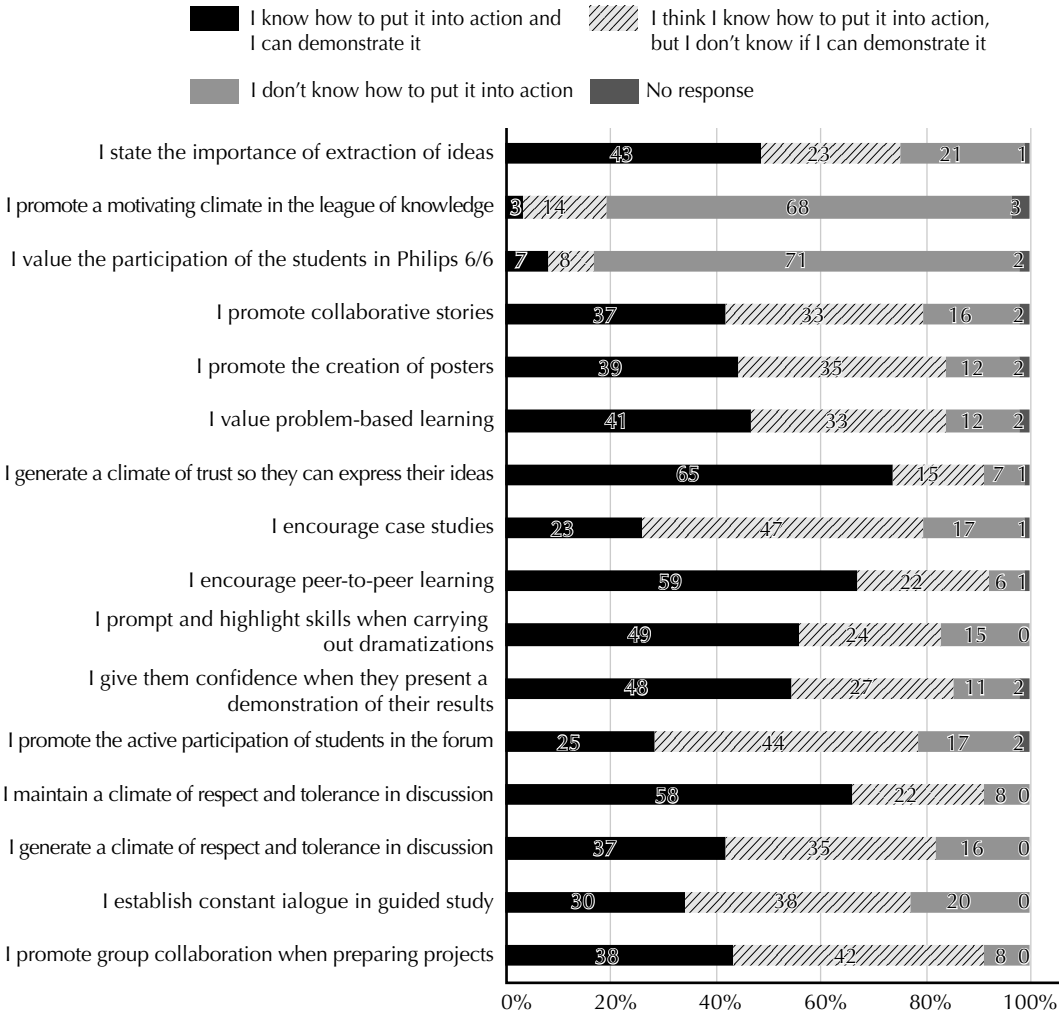

Figure 3. *Responses to questionnaire on attitudinal level*

Source: prepared by the authors.

In Figure 3 we can see that 60% or more of the participants state that they are able to implement the following attitudes: generating a climate of trust to express ideas, maintaining a climate of respect and tolerance (particularly when ideas are discussed), encouraging learning (for example, when learning is peer-to-peer). On the other hand, the attitudes which more than half of the participants stated that they were not able to implement were valuing student participation in Phillips 6/6 and promoting a motivating climate in the league of knowledge. These results could be explained by the fact that teachers have a negative attitude towards methodologies with which they are not familiar and end up not using them in their classes as a consequence.

Inferential analysis between conceptual, procedural, and attitudinal levels

Based on the inferential analysis (ANOVA test for repeated measures) for the three levels (CL, PL, and AL), the within-subject effect test showed that there is a significant difference between the levels for each teacher ($F(2.80) = 38.91$, $p < .05$). The effect size is partial Eta =0.327, that is, 32.7% is due to the effect of the conditions. With respect to the inter-subject effect test, after the ANOVA analysis it could be shown that there are significant

differences in the levels between each of the teachers ($F(1.80) = 1995.4$, $p < .05$). The effect size is partial Eta = .961, that is, 96% is due to the effect of the conditions. In both cases, the difference in the levels implies that the procedural level is significantly higher than the conceptual and attitudinal levels.

To determine between which levels there were differences, we conducted a multiple comparisons test between the levels of the questionnaire, which showed that there are no significant differences between the means of the conceptual level and the attitudinal level ($t(80) = .990$, $p > .05$). However, the analysis established that there are significant differences between the means of the conceptual level and the procedural level ($t(80) = -6.374$, $p < .05$), that is to say, the procedural level is higher than the conceptual level. Finally, there is also a difference between the means of the procedural level and the attitudinal level ($t(80) = 10.019$, $p < .05$); specifically, the procedural level is higher than the attitudinal level.

Effect of years of experience and school level at which the teacher works on conceptual, procedural, and attitudinal levels

According to the inferential ANOVA analysis for the three levels (CL, PL, and AL), the inter-subject effect test shows that there is no significant difference in the CL, PL, and AL levels between the teachers participating in the study in accordance with each teacher's years of experience ($F(1.79) = 1.712$, $p > .05$). In the case of the effect of the school level at which each teacher works, the inter-subject test indicated that there is no significant difference in the CL, PL, and AL levels between the teachers according to the school level ($F(1.79) = .001$, $p > .05$).

Discussion

The hypothesis of the research is that participatory methodologies are not widely used in the classroom by teachers, who still follow a traditional curriculum.

In this respect, when we look at the results, it is clear that the participants obtain a higher average score on the procedural knowledge questionnaire than on the conceptual knowledge questionnaire. However, when analyzing the details of the teachers' responses to the procedural knowledge questionnaire, for each of the methodologies we observe that only in four of the total number of methodologies presented (18) do the majority of the participants state that they have full knowledge of how to implement them. With the rest of the methodologies, teachers believe they know how to do them, but are not sure if they can demonstrate it.

This belief of the teachers about their ability to implement methodologies in their pedagogical work is not consistent with the contentions of some authors (Salgado Cifuentes & Rocco Saldaña, 2020; González-Contreras et al., 2019), who state that, in the Chilean educational system, teachers mostly carry out expository classes without incorporating participatory methodologies. In fact, in a report prior to this research prepared by the school administration, it was observed that one of the main weaknesses of their teachers was the lack of participatory practices in the classroom, both in terms of using various strategies and in promoting collaborative work, which was reaffirmed by this study and was the reason why teacher training was requested subsequently.

It is likely that these teachers acquired the conceptual knowledge during their initial or continuous training. However, this was given to them using a traditional teaching-learning approach, which does not promote the practice of new knowledge (Silva Quiroz & Maturana Castillo, 2017). This traditional teaching-learning model will be replicated in turn by the future teacher when they exercise their profession. This implies that, despite teachers' conceptual knowledge of active methodologies, it is difficult for them to apply them when working,

since the traditional model through which they received this knowledge was based on discursive training focused on teaching monologues of the lecture type, and not on a problematizing, critical, and social approach (Delord & Porlán, 2018), which are elements typical of constructivist approaches and innovative didactic methodologies.

Another important aspect of using participatory methodologies is the attitude or appreciation that the teacher has towards this type of didactic tools. Studies generally show that innovative methodologies, especially participatory ones, are well received by teachers; however, there is resistance to pedagogical change due to a lack of mastery of the methodology or the large number of students per class, which hampers proper development of certain participatory methodologies (Martínez Muñoz et al., 2017).

With regard to resistance to change, the main difficulties that teachers have in establishing educational innovations in their classrooms are the uncertainty they experience when changing known practices that are under their control for others that are unknown and uncertain, a positivist conception of the teaching-learning process, in which there are indisputable truths that are transmitted independently of the context, and, finally, the lack of participation and little decision-making power given to teachers in educational reforms, which leads to a low commitment on their part when implementing such changes (Monereo Font, 2010).

This resistance to change is clearly reflected in the results of this study. First, they show that the lack of knowledge about some methodologies (such as the league of knowledge and Phillips 6/6) negatively influences their attitudes towards them and, second, they demonstrate significant differences between the conceptual and procedural levels, and between the procedural and attitudinal levels, differences that respond to the lack of transformation of theoretical knowledge into practical knowledge through a process that requires instances of individual and group reflection. Through practical knowledge, the experimentation of theory establishes new habits because of the systematic incorporation of new ways of doing and acting, so that the future teacher can create their own knowledge and does not receive knowledge previously created by third parties and subsequently transmitted by them.

The analyses also show that, for the sample under study, the variables of the number of years of experience of the participating teachers or the school level at which they work do not have an influence on the different levels of knowledge of participatory methodologies (conceptual, procedural, and attitudinal).

As regards the years of experience and school level, the results of this study may indicate the effect of the persistence of the traditional teaching model in the Chilean school system, a model that is established among teachers at the first two levels of elementary education and at the secondary level too, and which remains independent of the number of years of experience that the teacher has in the school system. This traditional model is enhanced by a rigid class structure (beginning, middle, and end) established by the Ministry of Education (Mineduc, 2015), which has fostered the continuation of the traditional behaviorist teaching model and the predominant use of expository-type classes (Villalta Paúcar et al., 2011).

Another significant factor is the process of educational reforms and the slowness with which educational systems produce appropriate conditions to meet new demands, which affects the work of teachers, regardless of their years of experience and the educational level at which they work. Within this adverse system, we can also point to the lack of time for class preparation and attention to students, and the heavy teaching load (Benell & Akyeampong, 2007).

Finally, a third element that could explain the results of this study is the teacher training carried out in Chile, which shows weak didactic preparation and pedagogical action, but particularly a lack of internal monitoring and evaluation of training programs (Cisternas, 2011), which has an impact on the teaching practice of the professionals being trained. Specifically, the diversity of the offering in the area of continuous education has hindered the systematization of certain learning, mainly in the didactic area because, firstly, there is a lack of certified courses in the field of specific didactics and, secondly, the training, courses, or diplomas taken by practicing teachers are often not focused on their real needs and weaknesses.

This is demonstrated by the poor results of their students on standardized tests (Agencia de Calidad de la Educación, 2015), demonstrating the low quality of initial teacher training. For this reason, it is essential to advance with reforms that truly improve the quality of education in general and specifically initial teacher training through curricula that incorporate methodologies that promote the development of critical thinking skills, reflection, and metacognition (Moreno-Pinado & Velázquez Tejeda, 2016).

In the same vein, it is essential to develop further research in the area, which will allow the problems or obstacles that prevent the implementation of this type of methodologies in the classroom to be revealed more accurately. In this respect, a study conducted by Araya (2017) in a private subsidized school in the Biobío Region should be noted, where results were obtained that were similar to those presented in this research, indicating poor implementation of participatory methodologies by teachers, resulting in low interest and lack of motivation among their students. Araya suggests that the main causes are an education focused on content, the institutional culture, and initial teacher training, which is more theoretical.

Conclusion

The aim of this study was to learn about the notions about participatory methodologies demonstrated by elementary and secondary school teachers in the Biobío Region at the conceptual, procedural, and attitudinal levels, in order to investigate the knowledge and application of innovative teaching methodologies.

Our hypothesis was that participatory methodologies are not widely used by teachers, who still follow a traditional curriculum in the classroom, according to the theoretical review carried out.

The results shine a light on teachers' notions regarding the methodologies and enable us to conclude that, effectively, they are infrequently used in the classroom by teachers and are reduced to a small group of participatory methodologies about which the teachers do have notions or theoretical knowledge, which is reflected when they implement them, since they do not feel capable of demonstrating how they are carried out. This insecurity is based on two key elements of the educational process: initial teacher training and the teaching-learning model.

With regard to the first element, the poor results of Chilean students on standardized tests show the low quality of initial teacher training, the main problems of which are weak pedagogical training in areas such as didactics and the lack of monitoring and assessment of internal processes, which contributes, for example, to the lack of knowledge and implementation of innovative methodologies in the classroom.

The second element, the traditional teaching-learning approach, which has a memory-based and expository nature, is the model through which teachers receive their training and, as a consequence, they continue to replicate it in their own practices once they enter the school education system. This repetition of traditional teaching prevents future teachers from incorporating participatory methodologies into their pedagogical work, since this traditional perspective of classes does not give rise to metacognition of learning or theoretical experimentation of knowledge.

It is for this reason that initial teacher training should promote alternative approaches to the traditional model, including the use of active and participatory methodologies and, at the same time, educational reforms should be promoted to improve higher education and initial teacher training through formative projects that include innovative didactic approaches for the development of reflective processes and metacognition.

Finally, with respect to the scope of this research, it would be interesting to extend it to a larger population and integrate these results with studies of a qualitative nature, such as classroom observation or teacher support programs, and thus pose new questions such as whether there are differences between the type of educational

establishment or between teachers of different specialties. This would complement the results of this study, which contribute to continuous education with regard to the implementation of participatory methodologies in the classroom and the follow-up of these practices in teaching activities.

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