

ON FORMATIVE DEMANDS FROM BASIC EDUCATION TEACHERS TOWARDS THE RESEARCH COMMITMENT WITH INTERVENTION OF THE **PROFESSIONAL MASTER'S DEGREE**

DAS DEMANDAS FORMATIVAS DE DOCENTES DA EDUCAÇÃO BÁSICA AO COMPROMISSO DA PESQUISA COM INTERVENÇÃO DO MESTRADO PROFISSIONAL

DE LAS DEMANDAS FORMATIVAS DE LOS PROFESORES DE LA EDUCACIÓN BÁSICA AL COMPROMISO DE LA INVESTIGACIÓN CON LA INTERVENCIÓN DEL MÁSTER PROFESIONAL

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ABSTRACT: This article has the purpose of analyzing whether the current formative demands of elementary and middle school teacher in the cities of Santa Catarina and Paraná have been fulfilled in researches conducted in the Professional Master's Degree in Basic Education (PPGEB), located in the town of Caçador, Santa Catarina. Based on comparative research and supported by exploratory research and bibliographical review and by the qualitative and quantitative approaches, the study relied on the participation of 41 teachers working in the elementary grades of four public schools in the cities of Rio do Oeste and Porto União (Santa Catarina) and União da Vitória (Paraná). Results show that the researches including an intervention analyzed are close to the formative demands of participants as they foster participation and stimulate the interest of students, collaborative work, and the development of inclusive strategies. Conversely, it was observed a need to strengthen, in the formative activities, activities that enhance the use of digital technologies in education.

KEYWORDS: Teacher training. Professional master's degree. Research with intervention.



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RESUMO: Este artigo tem como objetivo analisar se as atuais demandas formativas de docentes do Ensino Fundamental de municípios de Santa Catarina e do Paraná têm sido contempladas em pesquisas desenvolvidas no Mestrado Profissional em Educação Básica (PPGEB), em Caçador - SC. Com base na pesquisa comparativa e apoio nas pesquisas exploratória e bibliográfica e nas abordagens qualitativa e quantitativa, o estudo contou com a participação de 41 docentes atuantes nos anos iniciais do Ensino Fundamental de quatro escolas públicas dos municípios de Rio do Oeste e Porto União (Santa Catarina) e União da Vitória (Paraná). Os resultados revelam que as pesquisas com intervenção analisadas se aproximam de demandas formativas dos participantes ao promover a participação e estimular o interesse dos estudantes, o trabalho colaborativo e o desenvolvimento de estratégias de inclusão. No entanto, observou-se a necessidade de fortalecer nas formações atividades que ampliem o uso de tecnologias digitais na educação⁵.

PALAVRAS-CHAVE: Formação docente. Mestrado profissional. Pesquisa com intervenção.

RESUMEN: Este articulo pretende analizar si las actuales demandas formativas de los docentes de la Enseñanza Primaria de municipios de Santa Catarina y Paraná han sido contempladas en investigaciones desarrolladas en el Máster Profesional en Enseñanza Primaria (PPGEB), en Caçador, Santa Catarina. Basado en la investigación comparativa y apoyado en las investigaciones exploratorias y bibliográficas y en los abordajes cualitativos y cuantitativos, el estudio contó con la participación de 41 profesores actuantes en los años iniciales de la Enseñanza Primaria de cuatro instituciones públicas de los municipios de Rio do Oeste y Porto União (Santa Catarina) y União da Vitória (Paraná). Los resultados presentan que las investigaciones con intervención analizadas se acercan de las demandas formativas de los participantes promoviendo la participación y estimulando el interés de los estudiantes, el trabajo colaborativo y el desarrollo de estrategias de inclusión. En compensación, se observó la necesidad de reforzar en las formaciones, actividades que amplíen el uso de tecnologías digitales en la educación.

PALABRAS-CLAVE: Formación del profesorado. Máster profesional. Investigación con intervención.

Introduction

The constitution of the teaching identity "[...] goes through several issues ranging from his primary socialization, as a student of the school, going to the initial training in undergraduate courses, until becoming a de facto teacher, staying in permanent formation" (IZA *et al.*, 2014, p. 277). This route implies "[...] a social construction marked by multiple factors that interact with each other, resulting in a series of representations that teachers make of themselves and their functions [...]", constituting a process, consciously or unconsciously, marked by "[...]



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negotiations of which certainly are part of their life histories, their concrete working conditions, the recurring imaginary about this profession [...]" (GARCIA; HYPLYTUS; VIEIRA, 2005, p. 54-55).

Iza *et al.* (2014, p. 274) indicate that "[...] teacher identity is dynamic and has a direct relationship with the social context in which it is inserted [...]". The authors also state that, in the research, different aspects underlying the teacher's identity emerge, which can be grouped into three axes: teacher professionality; experience and knowledge of the experience; initial and continuing training.

Continuing education, specifically, is one of the essential conditions for the identity constitution of teachers, especially when it allows reflection on local and global demands and favors interventions that consider them in the resizing of pedagogical practice. To this end, formative initiatives based on what Gatti (2014, p. 378) define as "[...] conscious actions, based on a more objective reflection on the experienced reality experienced [...]".

Behrens (2007, p. 441), however, highlights the persistence of training initiatives nourished by the encyclopedic approach that has historically accompanied teachers, carrying "[...] as greater inheritance the distance between theory and practice and the reproduction of knowledge". The author's statement is confirmed by studies that indicate the distance between what is predicted of advances in the continuing education of teachers and what, in fact, happens in pedagogical practice during this process.

Ambrosim (2019), for example, warns of the persistence of formations offered to meet demands to be met bureaucratically, while Martins (2019) observed that part of the formative initiatives tends to meet immediate problems, disregarding contextualization concerning reality. There is, therefore, a distance between the respective demands for teacher education, indispensable for their identity constitution, and alternatives of training to which teachers have been having access.

It is also noteworthy that the various transformations that society has been going through have repercussions on studies about the continuing education of teachers and indicate the need for their resignification. Studies by researchers such as Nóvoa (1992) and Candau (1997) have already raised questions about the need for changes in continuing formations since the 1990s, while studies by Behrens (2007), Nóvoa (2017, 2019) and Gatti (2014, 2017, 2019) reiterate the concerns in the current century. Among the discussions, we point out the importance of dialogue between theories and pedagogical practice, teacher protagonism, collaborative work and the need to approach formations with the context of action and its planetary interconnection.



The debates about conditions such as these have contributed to rethink the real purpose of training concerning professionalization and teaching practice. Sansolotti and Coelho (2019, p. 206-207), for example, point out that thinking about continuing teacher education is, above all, "[...] to think about the conduction of processes that seek the autonomy of the teacher in his professional development and a practical performance that is predominant to achieve significant results in the processes of teaching and learning [...]".

In the same aspect, Nóvoa (2019, p. 3) approaches the continuing education of teachers in the current scenario as an object of metamorphosis of the school environment. For him, metamorphosis occurs when "[...] teachers come together in a collective to think about work, to build different pedagogical practices, to respond to the challenges posed by the end of the school model [...]" traditionally adopted.

For this author, the collaborative work between higher education institutions (HEIs) and school networks is of great importance for the effectiveness of continuing education, but, above all, "[...] it is in the place of the school that it defines itself, enriches itself and thus can fulfill its role in the professional development of teachers" (NÓVOA, 2019, p. 11). In this sense, the author advocates a continuous formation within the school environment, with the participation of all professionals in a cooperative way, with exchanges of successful experiences and longings, dialogues and reflections that contribute to the effective interconnection between theory and practice (NÓVOA, 2017).

Imbernón (2010) reiterates Nóvoa's position by proposing a perspective of continuous, reflective and collaborative training between education professionals and the community in which the school is inserted, considering teachers as subjects of their own training. For the author, "[...] this new training should start not only from the point of view of the experts, but also from the great contribution of the practical-theoretical reflection that teachers make on their own doing [...]" (IMBERNÓN, 2010, p. 48).

Thus, when considering the teacher as the subject of their education, working in partnership with the subjects of the community, progresses towards changes in training initiatives, so that they are committed to overcoming fragmented and decontextualized formats of knowledge and practices. To this end, "It is important that teachers can expose their formative needs and participate in their professional development process and that the school be a privileged locus of training" (AGUIAR; HOBOLD, 2015, p. 221-222).

For this process, it is considered as determinant to listen to the teacher through initiatives in which this professional "[...] analyze its practice" (AGUIAR; HOBOLD, 2015, p. 221). The



results of this listening are determinant to resignify the formation and, concomitantly, generate a metamorphosis in pedagogical practice.

Oliver (2003, p. 27), in turn, indicates that "The educational practices developed in the classrooms [...]" are a "[...] source of information that needs to be critically analyzed [...]" with "[...] the thoughts that originate them and the models that sustain them [...]", constituting one of the "[...] great focuses of attention to which we must gather if we want to know the difficulties of change and the profound meanings of the actions." In this process, the relevance of listening for the metamorphosis of pedagogical practice is once again highlighted, as it mobilizes structures that collaborate in understanding, interpretation and intervention in teaching and learning processes (IMBERNÓN, 2010).

Listening is one of the determining factors of collaborative work and a key condition to consider in teacher education, what Imbernón (2010) defines as factors of diversity and contextualization, including the increase in the number of vacancies for students (SALTO; CARNEIRO, 2021), which demands a new look at the school environment. Nóvoa (2001, p. 4), in turn, states that "[...] it is in the concrete space of each school, around real pedagogical or educational problems, that the true formation of the teacher develops."

Faced with expectations such as these, Nóvoa (2019) proposes the "triangle of formation": teachers (profession); universities (higher education); and schools (networks). From this perspective, teachers can resize their practices collaboratively to universities "[...] it is attributed a capacity of cultural and scientific, intellectual knowledge, proximity to research and critical thinking [...]" (NÓVOA, 2019, p. 7) and schools can "[...] to build a formative environment with the presence of the university [...]", other schools and their professionals, "[...] creating bonds and intersections without which no one will become a teacher" (NÓVOA, 2017, p. 1123).

In so that the vertices of this triangle interact in collaborative training processes, Nóvoa (2019) presents a new matrix to think about teacher education. In it, "[...] attention focuses on how we build a professional identity, the way each person builds his journey within the teaching profession" (NÓVOA, 2019, p. 6). Thus, for Nóvoa (2019, p. 6), it is not "[...] possible to learn the teaching profession without the presence, support and collaboration of other teachers."

Regarding the metamorphosis of the school, Nóvoa (2019, p. 7) states that it "[...] implies the creation of a new educational environment (a diversity of spaces, practices of cooperation and work in common, close relations between study, research and knowledge)



[...]". Similarly, Nóvoa (2019, p. 7) points out that "[...] change in teacher training implies the creation of a new environment for teacher vocational training."

These conditions motivated the elaboration of this article, whose objective is to analyze whether the current formative demands of elementary school teachers from municipalities of Santa Catarina and Paraná have been contemplated in research developed in the Professional Master in Basic Education (PPGEB) of the Alto Vale do Rio do Peixe University (UNIARP), Caçador - SC.

To carry out this study, we chose to prioritize comparative research, with the support of exploratory and bibliographic research and qualitative and quantitative approaches. Data collection was carried out through two analysis scripts and a questionnaire applied, in the second semester of 2021, to 41 teachers from the initial years of elementary school from four public schools in the municipalities of Rio do Oeste, Porto União and União da Vitória.

It is expected that this research will evidence the relevance of continuing teacher education for the formation of teacher identity. Similarly, the need for investments in teacher training committed to the metamorphosis of pedagogical practices is valued, contemplating, in this process, the centrality, as highlighted by Nóvoa (2019) in initiatives that articulate the three vertices of training: the teachers themselves, universities and schools. Thus, the commitment of this study to the analysis of the relationship between formative demands and solutions proposed in research with intervention developed in PPGEB/UNIARP is justified.

Methods

For this study, comparative research was prioritized with the support of exploratory and bibliographic research. The exploratory research made it possible to know current formative demands of basic education teachers, while bibliographic research allowed the analysis of fragments of four dissertations of PPGEB/UNIARP. On the other hand, comparative research was used to compare the demands of teachers with the results of the interventions carried out during the research, aiming to detect whether, regardless of the year in which they were developed, they contemplated the current needs of the participating professors.

Regarding bibliographic research, it is observed that "Although in almost all studies some type of work of this nature is required, there are researches developed exclusively from bibliographic sources [...]" (GIL, 2006, p. 65) or combined with other methodological alternatives. While bibliographic research has as its source the result of related studies

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(ZWIEREWICZ, 2014), exploratory research has among its purposes, increasing familiarity with the phenomenon under study (MARCONI; LAKATOS, 2010), involving participants as a possible source, who collaborate with the completion of questionnaires and other research instruments created in accordance with the research objectives.

Finally, comparative research allows the comparison between two variables, observing approximations and specificities (ZWIEREWICZ, 2014). Its use may have as its purpose the comparison between "[...] societies of equals or different stages of development" (MARCONI; LAKATOS, 2010, p. 107) or other conditions such as those foreseen in this study.

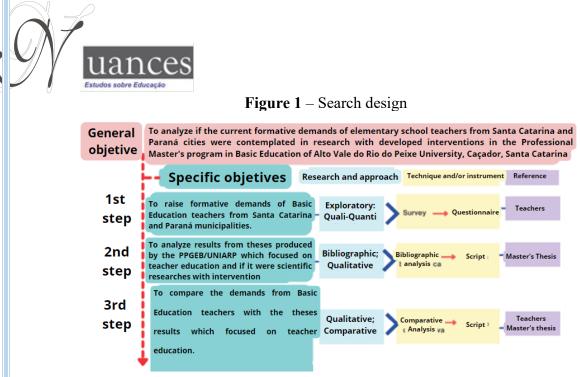
Concerning the approaches, we initially opted for the quantitative one because it allows the processing of data with the support of that PEREIRA *et al.* (2018, p. 69) define it as "[...] mathematical techniques such as percentages [...]". It can also be used with the qualitative approach, because, according to Yin (2015), both are not excluded and may be relevant for a better understanding of the phenomena studied. In the case of this research, the option for a second approach occurred due to the need to compare the results of research of the professional master's degree with the demands indicated by teachers of Basic Education.

Research design

The study was organized in three stages: i) Stage I: survey of formative demands of teachers of Basic Education, through the application of a questionnaire; ii) Stage II: analysis of the results of dissertations of PPGEB/UNIARP that focused on teacher education and used research with intervention; iii) Stage III: comparison between the results of the first and second stages, aiming to observe possible approximations between the results of the PPGEB/UNIARP research and the current formative demands of the participants of this study.

In addition to the specific objective of each stage, the techniques and research instruments are recorded in Figure 1. The sources used in data collection in each of the steps are also indicated.





Convergence between the educational demands and the research results

Source: Prepared by the authors

Evaluation instrument

For data collection, a questionnaire was applied based on those used by Almeida (2018) and Horn (2021), and items related to identification data present in both instruments were kept, as well as central questions about formative demands. The instrument applied was virtually accompanied by a Free and Informed Consent Form (TCLE), through which 100% of the participants authorized the publication of the data.

In addition, two scripts elaborated specifically for this research were used: the first to analyze the results of dissertations of PPGEB/UNIARP that focused on teacher education and used research with intervention, i.e., the research by Almedia (2018), Zielinski (2019), Dal'Bó (2021) and Horn (2021); the second for to compare formative demands of teachers working in basic education schools in municipalities of Santa Catarina and Paraná with results of dissertations of PPGEB/UNIARP that focused on teacher education and used research with intervention.



Data analysis

Data analysis was performed with the support of *Nvivo software*. This feature allowed the analysis of the data compiled in the second stage of the research and resumed in the third.

Systematized in a cloud of words, the data worked in The *NVivo* served as a reference for the design of two aspects: i) the key concepts present in the results of the four selected dissertations; and ii) the use of key concepts as key elements to perform the confrontation with the current formative demands of the participants of this study.

Results and discussion

The data are presented according to the sequence of the steps foreseen in the research design (Figure 1). Therefore, data on the current formative needs of teachers and the results of the dissertations of PPGEB/UNIARP are derived from the comparison of the respective data obtained in the first two stages of the research.

The 41 teachers participating in the research work in the initial years of elementary school in four public schools in the municipalities of Rio do Oeste and Porto União (Santa Catarina) and União da Vitória (Paraná). Among its characteristics stand out: i) the predominance of females, with 92.7%; ii) 87.8% completed graduation, 70.7% completed specialization and 7.3% graduated; iii) 68.3% attended a public university during graduation; and iv) 71.2% attended higher education in person, while the others attended distance learning. It is also noteworthy that, of the total number of teachers, 87.8% participated in some formative activity between 2020 and 2021, while 12.2% stated that they did not.

About the current formative demands, besides noting that a part, even small (12.2%), did not attend continuing education meetings during the years 2020 and 2021, 18.4% of the research participants indicated that they did not use the appropriate contents during the training in the pedagogical practice developed by them in the classroom. This last result reinforces the relevance of Behrens' (2007) concerns about the persistence of formative initiatives that distance the theory of practice and also evidences the emergence of overcoming proposals that, for Ambrosim (2019), tend to meet immediate problems, disregarding contextualization about reality.

When asked about the two resources most used in the preparation of class planning, the Internet was the most indicated, followed by the textbook. The relevance attributed to the Internet can derive from different conditions that need to be considered, among them: the one that expands possibilities for planning, in order to facilitate access to recent studies, documents



in multiple formats and real data that allow the confrontation of many realities, provided that reliable sources are used; and that internet access can stimulate the reproduction of previously defined activities without proper adaptation to the context. Therefore, the importance of using different resources and taking care of the information contained therein.

Regarding the general conditions of the participants who need to be considered in the trainings, the following stand out: the difference in the time of operation, the weekly workload and the number of schools in which they work.

Among the participants, 37.5% worked between 10 and 15 years in teaching, 30% for more than 15 years, 22.5% between five and 10 years, 5% between one and five years, and 5% for less than a year.

Considering that, in the constitution of the teacher identity, the performance and continuing education interfere both the trajectory performed in Basic Education, as well as the training in the degree, (IZA *et al.*, 2014), the relevance of the training based on collaboration is reiterated. This process of constitution, for Garcia, Hipólito and Vieira (2005), is marked by negotiations that imply both life histories, as well as the concrete conditions of work and the imaginary about the formation itself. In this context, for Nóvoa (2017), especially when teachers come together collectively to respond to challenges, the conditions for the metamorphosis of pedagogical practice are formed.

About the workload, it was observed that the overload of the teachers needs to be one of the defining factors of the formative proposals. This is because 68.3% of the participants work for 40 hours per week or more, while 19.5% work up to 20 hours per week, and 12.2% work between 21 and 39 hours per week.

Similarly, although the majority of teachers work in only one school (51.2%), the time of travel of teachers working in more than one school needs to be considered, since 48.8% move to work in two or more institutions.

Regarding the challenges encountered in the classroom, the participants indicated the low participation of parents in the activities of the school, followed by the students' indiscipline. They also indicated a reduced partnership with professionals from other areas of knowledge and the lack of mastery of inclusion strategies.

The indications of the participants show the relevance of continuing education involving the contexts of teaching, stimulating participation, the exchange of successful experiences, but also the sharing of challenges, as highlighted by Nóvoa (2019). Imbernón (2010) reiterates the



importance of this process by advocating collaborative training initiatives between education professionals and the community in which the school is inserted.

The participants also indicated demands for subjects that would need to be worked on in the training. The main ones were: inclusion, educational technologies, teaching methodologies, planning and evaluation.

In the use of NVivo for the initial analysis of four PPGEB/UNIARP dissertations developed with the support of research with intervention, convergent conditions were identified in the results of the four dissertations. These conditions are summarized in the concepts with higher frequency recorded in Figure 2, which are: the project, the participants, the teachers, the students, the training and the form. Concepts such as knowledge, participation, research, practice, activities, collaboration, reality, context, content, inclusion/inclusive, ecoformation, planning, among others are also highlighted.

Figure 2 – Prominent concepts present in the results of the analyzed research⁶

profissionais importância perspectiva contexto dificuldade ambiente equipe valorizá colaborativo condições continuada comunidade diferentes sentido laudos disso tanto inclusivas realidade também inclusão escolha vida resultados etapas participantes figura conceitos ecoformação transdisciplinar termos pesquisa docentes destaca case nossível questões escolas ensino formação escola campo objetivos avaliação elaboração projeto conhecimento forma práticas proposta escolar demandas grupo atividades meio ^{aula busca} novas etapa criativas respostas alunos encontro frequentes sala participação estudantes planeiamento 🚥 mudancas desenvolvimento registrou início relevância questão realizadas necessidade professores momento aluno possibilidades especificidades tempo curriculares base especialmente consideração leitura metodologia questionado

Source: Prepared by the authors

The most frequent concepts indicate that the results of the four studies with intervention reveal an approximation of the formative proposals developed with demands indicated by the participants of the current research. Demands such as lack of participation, interaction and specific knowledge are presented. Similarly, it is evident, in the analysis of the results, the

⁶ Highlighted words in orange: participants, teachers, formation, project, form, and students.



linking of the analyzed researches with themes suggested to be worked on in the meetings of continuing education, including teaching methodologies and planning.

To detail this approach, fragments of the dissertations themselves are recovered. Therefore, we initially chose to locate the concepts during the respective dissertations, followed by excerpts that contextualize them.

Regarding the lack of participation of the school community, Zielinski's dissertation (2019, p. 41) indicated that the training resulted in "[...] changes in pedagogical practices, especially in the creation and exploration of alternative learning scenarios and in the expansion of the community's involvement in school activities." In addition, it was observed that it was "[...] the theoretical-practical articulation, bringing the content closer to the students' reality, through research, the students' dialogues with teachers and the community [...]" that "[...] favored the expansion of knowledge about the subjects that conveyed in the texts [...]" worked during the Creative Ecoforming Project (PCE) developed by teachers at school from participation in training (ZIELINSKI, 2019, p. 41).

Zielinski's (2019) research also highlighted as one of the results that interaction with the community was one of the conditions predicted in two of the ten indicators of transdisciplinary practices of reading, production and textual interpretation, identified during the study. They are: i) the use of alternative learning scenarios, such as field classes on agricultural properties and community land, in addition to the creation and/or exploitation of different spaces in the school that favor the applicability of knowledge; and ii) the alternation in interactions, alternatively involving peers, students from other classes, teachers, managers, technical professionals, family members, professionals from different areas, public authorities and members of the community in general.

The results converge with indications from Nóvoa (2017, 2019) about the importance of the formations involving the collective. They also enunciate the overcoming of formations based on the encyclopedic approach that, as commented by Behrens (2007), have historically followed teachers, resulting in the distance between theory and practice and the mere reproduction of knowledge.

Regarding the respective demand for students' indiscipline, it is observed that, although it is not one of the most frequent concepts, interventional studies consider conditions that favor their interest and commitment. Among the results of Almeida's (2018) research, for example, the professors reported that, in place of indiscipline, students were interested in asking



questions, commitment, autonomy, commitment and participation. Examples demonstrating the interest of students were also highlighted:

A very significant example was at a time of the project that inserted the contents of geographical location, signs and signs that stimulated the interest of students, where they arrived at school bringing new information, figures and various curiosities about the subject inserted. Even the students of the Preschool were excited that there was a moment when one of them brought up a cut out image of magazine (where it showed rivers, woods, a house and large stones) and showed the teachers of the school saying that this was a map where his house was [...] (ALMEIDA, 2018, p. 113-114).

Regarding the lack of interaction indicated as one of the demands of the participants of the current study, it was observed that the formations developed in the researches with intervention analyzed have as one of the highlights the collaborative work. This can be observed when Horn (2021) concludes the presentation of the results of his study indicating that, in addition to the flexibility in planning and interconnection of the contents of the different curricular components, the training developed stood out, among other conditions, for the potential to promote collaborative work among teachers, managers, students and the community.

In the same direction, Dal'Bó (2021, p. 145) recorded that "The results of the research show that the collaborative work for the participants minimized the lags presented in the initial formation [...]", besides highlighting the relevance of "[...] continued training in the very context of action [...]". The author also pointed out that: "The formative proposal enabled the exchange and sharing of experiences and experiences among teachers".

These are conditions that, according to Nóvoa (2019), contribute to the metamorphosis of the school environment. For the author, in addition to contributing to the professional development of teachers, it is in collaborative work that they face the challenges in the face of the need to overcome a school reference not compatible with current demands.

Finally, concerning inclusion strategies, the study by Dal'Bó (2019) contemplated this demand as one of the central objectives of training. Among the results, he highlighted that, "When evaluating the training proposal from the perspective of the participants, considering whether it was compatible with the demands presented and their respective contributions to the development of inclusive pedagogical practices [...]", it was concluded that the participants not only felt an integral part of the cause as "[...] have embraced the responsibility of improving their own teaching practice [...]" (DAL'BÓ, 2019, p. 145).



In this process, Dal'Bó (2019, p. 144) indicated that the training enabled, in addition to "[...] together with teachers, the construction of this knowledge about inclusive education [...]", other possibilities, among them "[...] to create connections, to establish relationships, and to reconnect knowledge giving meaning and meaning to them." Thus, Gatti's expectations (2014) are answered about the need for the formations to guide their activities in conscious actions and that provide a more objective reflection on the reality experienced, as evidenced in Almeida's research (2018) when the teachers indicated that, from the training, they developed activities committed to the specificities of the students.

Regarding the suggested themes, it is observed that the training scans carried out in the researches with intervention analyzed met both the need to work with teaching methodologies and strengthened the planning. The inclusion of the terms "project" and "planning" among the most frequent concepts (Figure 2) reveals this commitment that was enunciated in Almeida's study (2018), when the author indicated that the training collaborated both to deepen reflections on the planning process and to value actions that were previously developed, but that need a certain resignification.

Despite the attendance of most of the formative demands of the participants of the current research, it was observed that the intervention albeit research developed by PPGEB/UNIARP can strengthen the approach of technological insertion. Therefore, this is a demand that needs to be part of the agenda of the next research with intervention involving teachers of Basic Education.

Conclusion

By having to compare the current formative demands of elementary school teachers from municipalities of Santa Catarina and Paraná and results of research developed in PPGEB/UNIARP, this study analyzed contributions from authors whose central interest lies in teacher education. The analysis was fundamental to reiterate the importance of training involving the very contexts of teaching, of considering their own experiences and of implying a collaborative movement capable of generating metamorphoses in the school context.

In addition to the participation of the internal and external school community, the reflections made by Nóvoa (2019) about the formation triangle show the relevance of this collaborative movement, which constitutes an initiative observed in the research with intervention proposed by PPGEB/UNIARP. In this sense, teachers, schools and the University,



that is, the vertices of the triangles of formation are fundamental elements for teacher education to collaborate in their metamorphosis. The initiatives that are committed to these conditions are those that favor the overcoming of formations that persist in distancing from theory to practice, individualism and decontextualized work.

Regarding the formative demands, the study revealed that the lack of participation of parents in school activities, the lack of interest of students, the difficulties on collaborative work and the lack of knowledge to develop inclusive strategies constituted both demands indicated through the questionnaire applied in this research, as well as commitments assumed in the research es com intervened analyzed. Thus, there is a convergence between the results of research with intervention of PPGEB/UNIARP and the current formative demands of teachers.

Concerning the inclusion of themes in the training proposals, the results of research with intervention reveal the commitment to innovative teaching methodologies, especially when they propose the use of PCE, in addition to strengthening planning initiatives during training meetings. However, the analysis also contributed to observe that there is a need to expand possibilities for technological insertion in pedagogical practice.

In addition, we highlight the importance of noting other conditions indicated in this research, including the difference in the time of performance of teachers, the weekly workload of each of them and the number of schools in which they work. These are specificities contemplated when the formation strengthens collaborative work and promotes the reconnection of what is discussed/proposed in the formative meetings with what is developed in the classroom, as it is strengthened when research with intervention of PPGEB/UNIARP explores a formative proposal based on training-reflection-action.

Finally, in this process, the researches reiterate a commitment to the articulation of what is proposed to work during training with what can be developed by teachers during their performance. They are, therefore, indispensable initiatives for the identity constitution of teachers, because they value the dialogue between theory and pedagogical practice, collaborative work and the approximation of formations with the context of action, in which it is considered, if valued, respects the place from which this teacher speaks/enunciates.





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