

Teacher Professional Development through collaborative interventions in times of pandemic¹

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ABSTRACT

The study aimed to highlight the experience of collaborative research, through the consolidation of training interventions. It is characterized as the objectives as exploratory, being a collaborative research. Fifty-six teachers from the municipal school network, from a city in the interior of Rio Grande do Sul, participated in the study. The interventions took place in 2020, via the Google Meet app, due to the situation of social isolation caused by the Covid 19 pandemic. Initially, it was evident that teachers were inhibited and insecure in exposing their opinions, however, little by little, they were appropriating the use of the application used in the training courses and began to demystify the distance they felt regarding the researchers. The interventions met the expectations of researchers due to the interaction between the process of knowledge and real-time approximation with the object of the study and, of teachers, for contextualization, reduction of anxieties, providing reflections,

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changes and professional development for teachers, inciting them to face more safely the difficulties that arose.

KEYWORDS: Formation of Teachers. Educational Context. Collaboration.

Desenvolvimento Profissional Docente através de Intervenções Colaborativas em Tempos de Pandemia

RESUMO

O estudo teve como objetivo evidenciar a experiência da pesquisa colaborativa, através da consolidação de intervenções formativas. Caracteriza-se quanto aos objetivos como exploratória, tratando-se de uma pesquisa colaborativa. Participaram do estudo 56 professores da rede municipal, de uma cidade do interior do Rio Grande do Sul. As intervenções ocorreram no ano de 2020, via aplicativo Google Meet, devido a pandemia do Covid 19. Evidenciou-se inicialmente que os professores estavam inibidos e inseguros em expor suas opiniões, no entanto aos poucos, foram se apropriando do uso do aplicativo utilizado nas formações e foram desmistificando o distanciamento que sentiam referente aos pesquisadores. As intervenções atenderam às expectativas dos pesquisadores pela interação entre o processo de conhecimento e aproximação em tempo real com objeto do estudo e, dos professores pela contextualização, diminuição de anseios, propiciando reflexões, mudanças e desenvolvimento profissional docente, incitando a enfrentarem de forma mais segura as dificuldades que surgiam com a pandemia.

PALAVRAS-CHAVE: Formação de Professores. Contexto Educacional. Colaboração.

Desarrollo profesional docente a través de intervenciones colaborativas en tiempos de pandemia

RESUMEN

El estudio tuvo como objetivo resaltar la experiencia de la investigación colaborativa, a través de la consolidación de intervenciones formativas. Se caracteriza en cuanto a objetivos como exploratorio, por tratarse de una investigación colaborativa. En el

estudio participaron 56 docentes de la red de escuelas municipales, de una ciudad del interior de Rio Grande do Sul. Las intervenciones se realizaron en 2020, a través de la aplicación Google Meet, debido a la pandemia Covid 19. Inicialmente, se evidenció que los docentes se mostraban inhibidos e inseguros en exponer sus opiniones, sin embargo, poco a poco se fueron apropiando del uso de la aplicación utilizada en los cursos de capacitación y comenzaron a desmitificar el distanciamiento que sentían respecto a los investigadores. Las intervenciones cumplieron con las expectativas de los investigadores por la interacción entre el proceso de conocimiento y aproximación en tiempo real con el objeto de estudio y, por parte de los docentes por la contextualización, reducción de ansiedades, aportando reflexiones, cambios y desarrollo profesional docente, animándolos a afrontar de una manera más segura las dificultades que surgieron.

PALABRAS CLAVE: Formación de profesores. Contexto educativo. Colaboración.

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Introduction

At the end of 2019, the new coronavirus, called SARS-CoV-2, appears in Wuhan city, in the People's Republic of China, and soon plagued the whole world (PAHO, 2020). In Brazil, in March 2020, all municipalities and states fully closed their educational levels and modalities of education according to the determination of the Ministry of Education (BRAZIL, 2020).

Therefore, teachers had to reinvent themselves in order to overcome the challenges they presented, seeking new alternatives for their pedagogical work. Every scenario experienced by the pandemic further emphasized the educational ills, so that teachers were not prepared to face the various challenges that presented themselves. It is noteworthy that the barriers faced during remote classes reinforced the little

educational investment, as well as the lack of effective policies for teacher training and valorization (BEZERRA; VELOSO; RIBEIRO, 2021).

Nevertheless, given this educational context experienced by the pandemic, the need for teacher training is even more visible, with the perspective of giving them support and subsidies to (re)do and (re)signify their pedagogical practice. However, in order for the formations to be significantly effective, providing the professional development of teachers, they must value the teaching person, they must start from the educational context, recognizing the teacher as a subject of knowledge. Thus, enabling teachers to express themselves and collaborate about their own professional training, being increasingly essential the rupture of punctual and reductionist formations, planned from the outside in, where the teacher is not part of the process (JUNGES et al., 2018).

The view of a teacher as a professional in permanent development is related to constant changes in society, educational and pedagogical theories. In this sense, the professional development of teachers should occur through exchanges of experiences, studies and reflexive practices in the collective, in contextualized and meaningful formations to praxis (HERDEIRO; SILVA, 2008; FIORENTINE; CRECCI, 2013; NUNES). Thus, it is emphasized the awareness that the teacher needs to have the role he performs on his own professional development, as well as the need for public policies of teacher training based on the complexity that the profession requires.

Continuing education provides teacher professional development when they are articulated with pedagogical practice, from the educational context, promoting conceptual changes and pedagogical practice, while causing clarity and awareness, barriers in personal/professional (trans)training and educational reality (FIORENTINE; CRECCI, 2013; GATTI, 2014). Thus, it uses collaborative research, understanding it as a significant means for the proposition of formative interventions, due to its peculiarities. They are based on the contextualization of the problems of the school reality, which seek

solutions through planned, developed and reflected actions, with the purpose of transforming this reality (PEREIRA; ZEICHNER, 2017).

Collaborative research is increasingly present in the field of education, as an alternative for the development of studies considered emancipatory, taking place with interventions that make dynamic relationships with pedagogical practice, based on collective reflection, self-reflection, critical and creative thinking (PIMENTA, 2005; DAMIANI, 2008). Since collaborative research is a methodological contribution that had collaborated with pedagogical practice, as well as with the researcher, considered as a two-way bias, because it works the research process while also providing the professional development of teachers (DESGAGNÉ, 2007; ILHA et al., 2014).

In view of the perspective of formative strategies with a view to the professional development of teachers, based on the emerging needs, knowledge and previous experiences of the researched. Based on the educational context of social isolation caused by the Covid-19 pandemic, the objective was to highlight the experience of collaborative research, through the consolidation of training interventions with teachers from a municipality in the interior of Rio Grande do Sul. Being this collaborative construction, a means of ensuring that the particularities lived and perceived by these teachers researched were contemplated throughout the interventions, constituting a significant process.

Methodological aspects of the research

The methodological option of this research is located in the domains of the qualitative approach, characterized by objectives as exploratory, being a collaborative research (GIL, 2017; IBIAPINA, 2008). According to Ibiapina (2008), in a proposal of educational research, capable of articulating research and professional development through approximations between university and school, to which, does not intend

that the researcher, dite themes or changes, and that teachers be mere executors. This type of research is done with teachers starting from the school context and emerging needs and not on teachers.

This study took place in a small municipality of Rio Grande do Sul, with an estimated population of 4,227 people (IBGE, 2020), which has in its municipal school system, two early childhood education schools, two elementary schools and 68 teachers in total. The choice of the municipality occurred intentionally, due to the partnership signed between the Municipal Department of Education and the University, with the objective of conducting continuous training and contributing to the professional development of teachers. To this end, the data from the present study are part of the initial unfolding of the project. Participated in this study 56 teachers from the mentioned context, who agreed to participate voluntarily.

An extension project was carried out with collaborative interventions, to which it was planned, developed and executed in collaboration between researchers and specialists of the Group of Studies and Research in Internship and Teacher Training (GEPEF). This group is composed of 26 members, of which 22 are graduate students or doctoral students of the Program of Education in Sciences: Chemistry of Life and Health, and four are professors of this same program. Of the 22 graduate students, 16 act as teachers in basic education and six work in other professional areas: law, nursing, psychology and informatics.

In order to perform collaborative interventions, we first sought subsidies that would assist researchers in the knowledge of the field of research. Thus, a diagnosis of the profile of the teachers, the educational context to which they were due to the Covid-19 pandemic, as well as their emerging needs, was made. Throughout the process of collaborative interventions, the influence of these interventions was also analyzed, with regard to the contribution to knowledge, practice and professional development. The actions were planned, proposed and carried out by the

GEPEF' group of researchers after the initial diagnosis and were being built and conducted throughout 2020, according to the emerging needs of teachers.

For initial information collection and approximation with the teachers' context, two instruments, electronic form and conversation wheel, were used before the first interventions. The electronic form had questions related to the profile of teachers, the educational context experienced and the emerging training needs. This being elaborated by the researchers, using (Google Forms), being sent by message exchange application (WhatsApp) to teachers, along with Free and Informed Consent Form (TCLE). The conversation wheel, so-called, was the moment in which dialogues, reflections, self-reflections and discussions were provided with the purpose of (re)thinking and (res)ignifying pedagogical practice, which used participant observation and registration in a field diary. The conversation wheel occurred via the Google Meet app, due to the situation of social isolation caused by the pandemic of Covid-19, in the year 2020, through prior scheduling.

To analyze the influence of training interventions, with regard to the contribution to knowledge, practice and professional development, questionnaires were applied throughout the process and at the end of the intervention program, with the objective of ensuring greater freedom and security in the answers, without the influence of the researcher. These questionnaires were discussed and created by the group of researchers using the Google Forms application. Participant observation was also used with field diary recording, for analysis of moments, conversations, expressions and the interaction of participants during the interventions.

Nine formative interventions were carried out during the year 2020, with monthly periodicity, an average duration of two hours, totally in remote format, with prior scheduling via google meet application, and the meetings were recorded in the application itself, for further analysis. Comprising the following themes:

- 1) Welcomed - "Mental health"- pandemic context;

- 2) Presentation of GEPEF, approach and listening on the challenges of remote education; perspectives, needs emerge;
- 3) Convers(action)- Use of technologies in education, seeking viable alternatives (whatsapp and facebook);
- 4) Suggestions and discussions about remote activities based on skills and competence (BNCC);
- 5) Verbal and nonverbal communication; Changes can be positive- (sharing experiences, making reflections about the moment);
- 6) Conversation wheel, about inclusion; Specialized Educational Service (AEE); curricular adaptations; Pedagogical possibilities;
- 7) Learning styles; Suggestions for activities and curricular adaptations according to specificities of the disability, facilitating resources;
- 8) Problem solving; Rescue of workshops; Submission of proposals to problems;
- 9) Ending of the school year- Welcomed, "Together we are stronger" (dialogue and reflections).

The questions of the questionnaire were related to emerging needs, knowledge and doubts about the themes they listed and evaluation of interventions. To analyze the teachers' answers, moments, conversations, expressions and interaction of the participants, the content analysis proposed by Bardin (2011), based on the category analysis, with dismemberment of the answers into categories, constituted by a core of meaning emerged from them as the main methodological contribution.

Presentation and discussion of results

The data from the initial diagnosis were essential support for researchers to initiate contextualized formative propositions and significant emerging needs. In this case, the study had the participation of 56 teachers working in early childhood education, initial years or final

years of elementary school. There is a predominance of female teachers (50) and most teachers (30) have been working for more than 10 years in teaching. The average weekly workload of teachers is 37 hours, and 40 teachers have a workload of more than 40 hours per week and, most (41) teachers, have postgraduate degrees in specialization. It is observed that most of the teachers participating in the study are professionals with long experience in the area and with qualification in the specialization level, however, there is a large percentage who work 40 hours or more, a factor that can directly compromise teaching practice and educational quality.

Due to the social isolation caused by the Covid-19 pandemic, educational managers and teachers initially felt lost, not knowing how to proceed. As an alternative to continue the educational work, through remote teaching, ensuring the school year, the municipal educational management chose emerging, without consulting the teachers of the network, to perform the delivery of printed activities, organized through didactic sequences. Because they believed that it would be the most practical and most reachable way for students to carry out the activities. So they didn't see any other quick way to start this process of remote classes.

The 2020 school year started normally and ran for only one month. Thus, the order of closing of all students, due to the pandemic situation, barely giving teachers time to know their students and complete the survey period. Thus, the activities were planned and developed by teachers in 2020 in the format of didactic sequence, due to the scenario of social isolation caused by the pandemic, being carried out totally remotely. To this end, the delivery of physical material was performed, printed, fortnightly, through a didactic sequence planned individually by the teachers, according to the discipline to which they taught and/or the level of performance. The teachers carried out their planning and sent the management team of their school, they performed the review, formatting and printed the material.

For the delivery of the teaching material, the dates and times were scheduled for the families to seek the material in the school for the students

to study and, at the same time, to deliver what they had already completed from the previous activities. However, the students who lived in the interior of the municipality received the activities at home, as well as delivered the ones they had already done. The delivery and receipt of the activities of the students from the interior, were carried out by the team of municipal educational management, to which they moved from the city to the interior by school bus, driven by drivers of the city.

It was evidenced that the return to the teachers of the activities performed by the students was time consuming, starting after having already sent four didactic sequences. Justifying the increase in the number of contagions in the municipality and consequent concern in contamination so far in this process of return delivery. Thus the activities were received at the school by the management team, but were kept in the school.

In general, referring to the context experienced by the teachers, it was found that they were weakened, demonstrating insecurity, uncertainties, anxiety, feeling lost and vulnerable. With this, the first emerging needs were listed and perceived, from the answers of the questionnaire and the context observed. Being identified the need to collaborate initially, with the mental health of teachers, with regard to feelings and perceptions about the context experienced of social isolation, caused by the pandemic, as well as about the context of remote classes, challenges, perspectives and emerging needs.

For Santos and Lima (2020), the current context of isolation caused by the pandemic challenged teachers to have the disposition, understanding and technological, didactic and socio-emotional knowledge to seek to reinvent the way of teaching in this remote teaching. According to the authors mentioned above, the educational scenario experienced is below ideal, since teachers had to adapt to remote teaching quickly and without training, so that many changes happened to deeply mark Brazilian education.

The process of the collaborative interventions program

The first and second interventions were performed with all study members, through reflexive conversations (IBIAPINA, 2008), regarding "mental health", feelings and perceptions about the context experienced of social isolation caused by the pandemic, context of remote classes, challenges, perspectives and emerging needs. Since the first intervention was conducted by a psychologist, seeking to welcome teachers, reassuring them and making it possible to express their feelings in the face of the scenario experienced.

In the second intervention, the GEPEF researchers presented themselves, and exposed the proposal to carry out the formative interventions, seeking to bring the participants closer, listening to their interest, referring to their participation from the proposed perspective. Next, the context of teaching practice was discussed in this situation of isolation caused by the pandemic, observing through reports and reflections of teachers how worried, anxious and feeling insecure about their pedagogical practice.

Teachers expressed concern about being away from students and how they are taking remote classes. Reporting not having received feedback from the first printed activities that were delivered. Which makes it difficult for them to continue the didactic sequence, because they had doubts about how this process was being for the students. Thus, they showed interest in taking an even more step in this educational process, in an attempt to seek an approximation with students and families.

With the development of interventions and questions, the group of researchers and researched collaboratively were able to identify urgent problems, defining some strategies for such problems. Therefore, some emerging formative points were raised, such as the use of communication applications, as an alternative of closer approximation between teacher and student, as well as the need to make the same printed material available,

through a digital application. In these first two interventions the teachers were shy and not very participative, they became more like listeners. However, they demonstrated voluntarily that they felt welcomed, calmer, satisfied and interested in continuing the interventions by the WhatsApp group organized by the researchers.

In this sense, according to Ilha e colaboradores (2014), collaborative research seeks to contemplate immediate problems of daily school practice, interpreting and understanding a given reality with a view to intervening in this and transforming it. According to these authors, collaborative research differs from other types of action research, because it is planned together by all involved.

The third intervention occurred in a more practical format, still with all the teachers of the study, due to the manifestation of emerging need for pedagogical practice. This intervention was in the form of convers(action), assimilating the workshop in which the emerging theme was "The use of technologies in education, seeking viable alternatives (WhatsApp and Facebook)". This action led to talk about the experience, externalization of perceptions and longings. Likewise, space was provided to practice, test, know, learn, understand, experience different experiences and expose their initiatives with applications.

In this third intervention, it was observed that some teachers from the tutorial have already encouraged themselves to move, test and create their own groups on WhatsApp with the classes and make posts on Facebook. Some have created videos and personalized presentations for their students and others have taken the initiative to venture into using other apps like Classroom and Youtube. During the intervention, some teachers answered doubts and interacted by exposing their initiatives, their longings, others, only followed, without interacting with the group. Most kept their cameras off, opening the microphone at times when they were instigated and with some chat appearances.

It is noteworthy how significant this intervention was to teachers, because it is in line with the reality experienced, giving security in exploring the tools and motivating them to put learning into practice with their students. Although the participants still presented a certain shyness, all who expressed their attitude, reported that the intervention reached their expectations, supporting the applications, which is an alternative approach with students who have access to the Internet, and can help to boost the remote teaching process.

According to Gomes (2021), the teacher's understanding of the functionality and use of technological tools is what allows him to use it productively, significantly exploring the students' learning. Nevertheless, Piffero et al., (2020), indicate the use of active methods, because these, in addition to promoting greater interaction, have great motivating potential to encourage greater participation. Ilha ecolaboradores (2014) point out that collaborative research can privilege the development of formative processes that involve interpreting and resignifying teaching practice, favoring creative praxis.

In discussion and evaluation of interventions by researchers, it was possible to evidence the difficulty of interaction of teachers, demonstrating inhibition. This fact has been related to some aspects, such as: shyness to the large group (researchers and teachers); insecurity in the face of the pandemic, the challenges of remote education, the use of digital technologies, these being the first contacts of participants with this Google Meet application. Or, the presence of school management and educational management of the municipality in interventions.

Thus, it was perceived the need to perform interventions in smaller groups, so the participants were divided by area of knowledge and levels of education to which they worked. The proposal of division occurred with the intention of providing moments of closer approximation, of less embarrassment towards the large group, as well as greater freedom of expression. Corroborating Imbernón (2016), he points out that collaborative

work is not always easy, perhaps because of the formative process that is most often led to individualism, so that the experience of innovation is born, reproduced and ends in the teacher himself, not interacting in the collective.

According to Paviani and Fontana (2009), with regard to teaching practices, training and teaching itself, everything that is new or different generates insecurity, referring to challenges that need to be faced. In this case, support, exchanges of experiences and disposition in this confrontation are necessary, seeking to seek viable alternatives to the context. This situation may justify some of the teachers being reticent, because they were experiencing a different reality. Having to face the fear of the virus caused by the pandemic, social isolation, distancing students and work routine, remote classes, and at the same time having to review their teaching practice, review their concepts, many having to learn and use digital technologies and still seeking help and support through training that could only occur remotely.

The fourth intervention occurred, then, with the groups divided by area of knowledge and level of activity, with the following organization: early childhood education, initial years (groups from 1st to 3rd and 4th and 5th years), final years groups by area of knowledge (languages, mathematics, human sciences and nature sciences). All activities occurred concomitantly, especially if a management group was formed, where there were three specific interventions that are not addressed in this study.

For expressions of interest and emerging need, pedagogical possibilities were worked on in remote education, based on skills and competencies, following as a guide document the National Common Curricular Base – BNCC in Portuguese (BRAZIL, 2018), because teachers were instructed by educational management not to focus on content but to work based on skills and competencies. So that teachers manifest difficulties have not taken training regarding BNCC and ignorance in relation to the specific content of the same.

This intervention was conducted in conversation wheel format, where the researchers presented pedagogical possibilities according to the level of activity or area of knowledge to which they were performing the intervention. As well as, they discussed, raising questions about the feasibility or possible adaptation of the pedagogical possibilities presented, according to the experience of each teacher and the context experienced. We tried to further stimulate the active participation of teachers, with moments to share experiences, to hold reflection and discussions about pedagogical practice in this context of remote teaching.

In this organization, in general, there was greater participation of teachers. It is possible to show that teachers from the early and late years of elementary school used to work based on content developed according to the level, or the discipline they taught, individually. On the other hand, early childhood education teachers worked in a more practical and playful way, but most of the time they were also based on content and individually.

Most of the teachers revealed conceptual fragility regarding skills and competences, in line with the BNCC. This refers to the need for training on the subject and that these should have happened before the first planning they carried out in remote education. This information was confirmed by some teachers who claim to have sought, on their own, to make readings that would support them in the first planning, but who felt a lot of difficulty.

However, it highlights that most of them were able to make connections and expose adaptations considered relevant to their reality, considering it possible and important to perform a more collaborative work, integrated with their colleagues, performing exchanges of experiences and focusing on skills and competences. Thus, the evaluation of the participants of all groups showed us that the intervention was significant and contextualized, meeting their expectations.

For Alarcão (2011), it is necessary that the teacher is prepared to deepen his knowledge and acquire new ones, needing time to effect didactic and conceptual changes. The author also reinforces that the teacher

formations should provide the exposition of previous knowledge, starting from the educational context, instigating the search for alternatives of action, through reflective processes, in order to improve pedagogical practice, experiencing new possibilities in the exercise of teaching.

The fifth intervention occurred in two moments with two large groups of teachers, one group from the early years and early childhood education and the other from the final years. In one of the moments there were conceptual presentations, reflections and dynamic about verbal and nonverbal communication, about the perspective that "the body speaks". At the other moment, teachers were provoked to perform self-reflections, collective reflections and reports of personal and professional experience experienced from questions conducted by a psychologist, based on the theme "changes can be positive". It is notepoint that only the researchers responsible for ministering the interventions switched from virtual room, from one group to another, being at first in one group and the second in another.

It was witnessed, in both groups, a certain initial inhibition, for participation in dynamics, and it was necessary for the researchers to initiate the speeches to stimulate interaction and disinhibition. However, as soon as they began to participate, they demonstrated attention, creativity, reciprocity in the presentations of colleagues and dedication in the implementation of the proposal. The dynamics related to "the speech body" provided moments of great relaxed from the teachers, either manifesting themselves in their presentations, or in that of colleagues.

Regarding the dynamics conducted by the psychologist, it was verified with the reports that the reflections discouraged the teachers, in the perception that they were not alone, that everyone shares the same longings, the same difficulties, motivating them to continue in search of knowledge, to (res)signify their pedagogical practice. It is noteworthy that some teachers reported having been alerted, from these interactions and exchanges with colleagues in the formations, of some aspects that they considered having worked inadequately to the context experienced by the students,

demonstrating with this, they are already making changes in their way of seeing and acting pedagogically.

According to Gomes (2021), studies on the impact of the pandemic in the educational context have marked discussions about the role of the school in the teaching and learning process and, on the meaning of the formative actions developed by the university, in the school context and the pedagogical practices of teachers. In this perspective, collaborative research is carried out, seeking the active participation of teachers, because, according to Desgagné (2007), the researcher is a double agent, because he exercises the function of bringing the university and teaching work closer together, providing reflective actions that significantly influence the professional development of the professor, as well as the researcher expands his knowledge and vision about the object of study.

The sixth and seventh interventions were focused on the theme inclusion, a demand that arose from the manifestation of some teachers about the concern and difficulties with inclusion students, reporting that this difficulty was even more evident in this context of remote classes. So the teachers were feeling lost and not knowing how to perform significant work in this context, because they were not being able to contemplate students with special needs.

To perform the sixth intervention with all participants, we sought through an electronic form created in Google Forms by the researchers and sent to teachers by WhatsApp, to know the doubts related to the theme inclusion in the school context. Thus, the conduction the intervention started from the previous knowledge and emerging needs listed by the participants. Thus, in the first part of the action, concepts were approached, confronted and discussed and reflections were raised regarding inclusion in times of remote teaching; in the second part the themes on Specialized Educational Care (AEE in Portuguese); curricular adaptations and pedagogical possibilities.

Thus, in the seventh intervention, concepts, discussions and reflections related to learning styles were deepened; pedagogical possibilities of inclusion; suggestions for activities and curricular adaptations and identification of facilitating resources. To this end, teachers were again divided into groups as follows: mathematics and nature sciences; humanities and languages; early childhood education and early years. This organization occurred with the intention of continuing to provide greater approximation, less embarrassment in the face of a smaller group, greater freedom and time of expression, while also instigating to observe, talk and reflect with another area of knowledge or level of education.

Through the analysis of the data collected during the teachers' participations, it was possible to observe many doubts and anides on the theme of inclusion, as well as some conceptual deficits. However, teachers perceived the need to change their practices, but highlighted difficulties, unpreparedness and lack of training that provide more security. Throughout the two formations there were interactions, questions and reflections from real situations that the teachers were listed. According to Desgagné (2007), the researcher must, above all, consider the knowledge of teachers and the context to which they are inserted, so as not to conduct formations guided by the choice of object, under an external look about pedagogical practice. But yes, it should with teachers, list emerging needs and understand what pedagogical practice is supported.

The eighth intervention occurred in two moments, and in the first moment the groups worked divided by area of knowledge and level of activity: early childhood education; early years; languages; nature sciences; humanities and mathematics. The second moment occurred with the integration of all teachers in a single group. This intervention sought to provide feedback on the other actions developed by GEPEF, raising questions, reflections and resolutions of problems. Thus, a problem related to the emerging needs manifested throughout the formations was presented in each of the groups at the first moment. Teachers were encouraged to reflect,

discuss and organize themselves into small groups to list a possible resolution to this problem. After this stage, each small group presented its motion for a resolution and discussed with the other. As soon as all the small groups presented, it was decided what would be the resolution of the group's problem, for later presentation in the second moment, to the general group with all teachers and researchers.

It was observed that, at first, all groups were able to organize themselves in small groups and raise coherent proposals, demonstrating security in their knowledge and theoretical adequacy, with teachers in most of the most uninhibited groups. Also, when defining the problem of the large group for presentation, several teachers were able to express practical experiences that they experienced, both positively and negatively. Emphasizing that in both ways, they made them reflect and often make changes, to achieve their goals, resignifying the praxis. The teachers also brought concepts and raised discussions on subjects and themes of previous interventions, many reporting how was the process of deconstruction, reconstruction and construction of their pedagogical practice with this new way of teaching in remote teaching, presenting new ways of looking and positioning themselves, explaining a safer and more peaceful posture.

In the second moment of the eighth intervention, all the initial groups joined in a single general group where rapporteurs were appointed for each group (considering the organization of the first moment) who were invited to speak (via microphone) about the discussion of the problem in the smaller group, as well as the possible resolution that reached consensus. It was evidenced that teachers, compared to the first interventions, were more comfortable to express their ideas, their feelings, felt safer, as well as demonstrated to demystify the distance they understood, initially, between researchers and researchers, thus being able to share their experiences in the large group. It is worth mentioning that some teachers feel more comfortable to express their point of view and participate via microphone in the activities

of the smaller groups. In the general presentation, few teachers from other groups interacted with the rapporteurs.

According to Freire (2011), reflexive practice is fundamental for training interventions of teachers, moving away from the concept of updating through the acquisition of scientific, didactic and psychopedagogical information decontextualized from educational practice, to adopt a concept in a broader and meaningful way, starting from the context and teaching practice. To this end, it is essential to break with the gap between university and school, between researcher and teachers, seeking an approximation through formations, so that they create conditions that guarantee everyone moments of speech and listening, allowing teachers moments of reflection on their praxis (IBIAPINA, 2008; SANTOS, 2019).

The ninth intervention occurred with all teachers in reflective conversation format (IBIAPINA, 2008), under a closing bias, being conducted by a psychologist who sought to welcome the participants, motivating them through dialogues, reflections and questions with the theme "together we are strong". A very consistent interaction was observed via chat, since the psychologist conducted the speech dynamically, leading them to personal reflections, about "who I am", "what my fears" and "what my future expectations".

It was found that teachers still have many concerns regarding teaching, how they will develop their classes in the near future, due to the uncertainties of return in hybrid teaching or continuity of remote teaching. On the other hand, they were hopeful and motivated by the formations that occurred throughout the year, because they have reformulated and reconstructed new concepts, because they are safer from new practices and new knowledge consistent with the reality they are experiencing and, which will help them in some way in this still uncertain path.

The final evaluation of the study participants showed that the interventions performed by GEPEF were of great value throughout the school year, including the only formations offered to them, leaving a feeling of

gratitude, to which they raised the hypothesis: "what would it be if it were not for you, to provide us with these interventions" P(12).

It was stated by the teachers that the interventions met their expectations, started from the context and their emerging needs, valuing their experiences and did not neglect their knowledge, thus helping to minimize their expectations, providing reception at a challenging time for all, but essentially for teachers. They also pointed out that the interventions provided them with many reflections, new possibilities, new visions, which provoked them to face and seek their own possibilities in the face of the difficulties that arose.

As for the researchers, the interventions favored a greater solidity in the group, with many moments and spaces of study, exchanges, discussion, reflection, seeking alternatives to make the process more meaningful to all involved, with contributions that expressed different meanings and experiences, always looking at the complexity of collaborative research. It was gradually perceived the evolution of teachers regarding safety, tranquility, autonomy, critical view of their classes and the moment experienced, trust and proximity to the group of researchers, thus consolidating the process of collaborative research, providing changes in praxis and consequent professional development teaching. At the same time, the researchers also developed building interventions together with the teachers, with a close, attentive and real-time look at the emerging needs of their object of study.

Conclusion

In view of teacher education from collaborative interventions, it emphasizes the importance of these emerging and submerged in the school context where these professionals are inserted. It is considered that despite being perceived, initially inhibited by the participants, this was being circumvented throughout the development of interventions.

This induces the need for interventions that consider several moments of learning and exchange of experience between researchers and teachers, breaking with the abyss that divides the university from the school. The participants were accustomed to in-person formative actions, usually in the structure of lectures, where the use of the computer was only of those who proposed the speech. However, with the pandemic scenario established, this situation was modified, and teachers also had to adapt to the use of technologies.

It was found that the interventions were extremely valuable, because they corresponded to the emerging demands of a situation imposed on them, and were being conducted collaboratively, according to the needs that were being presented. Starting from the previous knowledge of teachers and their experiences, thus providing the overcoming of difficulties and professional development of teachers. Argumentation that reinforces the importance of using collaborative research to contribute to the reality of the school environment in search of significant changes to the teaching and learning process.

As future perspectives, it is intended to continue working collaboratively at GEPEF, aiming both at the production of scientific knowledge, as well as the participation of those involved, researchers and researched significantly. Thus, as it seeks to identify greater contributions of collaborative interventions in basic education environments, so that these can be replicated by different researchers, contributing to a higher quality education, with the professional development of teachers, providing voice and instead the experience of the teacher.

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