ABSTRACT: The objective of the research was to investigate the actions of implementation of the Mathematics subproject of the PRP/XXXX throughout the first module. Initially we conducted a study on the notion of Pedagogical Residency as well as projects that have been proposed with this perspective. To compose the experience of the development of the activities of the Math subproject, we analyzed the monthly reports of one of the residents, who, to maintain anonymity, we called "Resident A". Thus, we analyzed 5 reports of Resident A trying to identify the actions that were performed. The analysis of the reports presented as results, in the relationship between theory and practice the actions developed were those that were possible and that, as far as possible, provided learning moments for the students of Basic Education. Moreover, regarding the remote regency activities, it is understood that the use of digital media has a huge potential to boost knowledge and provide greater efficiency to educational practices.

KEYWORDS: Pedagogical Residence Program. Initial teacher education. Bachelor in Mathematics.
o uso de mídias digitais possui um enorme potencial de dinamizar o conhecimento e proporcionar maior eficiência às práticas educacionais.


RESUMEN: El objetivo de la investigación fue investigar las acciones de implementación del subproyecto Matemáticas del PRP/XXXX a lo largo del primer módulo. Inicialmente, realizamos un estudio sobre la noción de Residencia Pedagógica así como sobre los proyectos que se propusieron con esta perspectiva. Para componer la experiencia de desarrollo de las actividades del subproyecto Matemáticas, analizamos los informes mensuales de uno de los residentes que, para mantener el anonimato, lo llamamos “Residente A”. Así, se analizaron 5 informes del Residente A con el fin de identificar las acciones que se llevaron a cabo. El análisis de los informes arrojó que las acciones desarrolladas fueron las que resultaron posibles y que, en la medida de lo posible, propiciaron momentos de aprendizaje para los estudiantes de Educación Básica. Además, en lo que respecta a la realización de actividades a distancia, se entiende que el uso de los medios digitales tiene un enorme potencial para potenciar el conocimiento y dotar de mayor eficiencia a las prácticas educativas.


Introduction

When faced with themes such as Pedagogical Residency, we identify that this is not a new subject, but that it has been debated for decades, presenting several ideas and arising countless adversities, due to the complexity of the subject.

The proposal of the teaching residency, still, is not something very common, but the subject has been gaining space in recent years given the need to discuss and rethink the training of professionals in the current educational scenario, particularly teachers working in Basic Education. According to the Portuguese researcher Antônio Nóvoa (2012, p. 18, our translation):

To achieve a fundamental transformation in the organization of the teaching profession, it is essential to build new models of training. Professional dialogue has rules and procedures that must be acquired in training schools and in the first years of teaching. Without this, we will continue to repeat intentions that will hardly have a concrete translation into the lives of teachers and schools.

Regarding the implementation of this residency format in Brazil, we can verify that it is not a recent discussion, given the presence of projects with the same characteristics and even different names. Nevertheless, the projects of the Pedagogical Residency Program presented during these years demonstrate different behaviors, since, in some projects of the Program,
there is a predominance of activities aimed at initial teacher training and, in other Programs, contents aimed at Continuing Teacher Education are observed.

Thus, this article aims to present the results of a completed research that sought to investigate the implementation actions of the Mathematical subproject of PRP/XXXX throughout the first module. To do so, we will discuss the structure of the Pedagogical Residency Program.

The pedagogical residence

When we talk about the Pedagogical Residency Program (PRP) in Brazil, it is observed that there are few projects of this nature. One of the pioneering projects was developed by the School of Philosophy, Letters and Human Sciences of the Federal University of São Paulo (EFLCH/UNIFESP). UNIFESP develops in its pedagogy course the PRP, a differentiated internship program, organized to meet the mandatory internships, aimed at undergraduate students of the course. This Pedagogical Residency Program of UNIFESP is a supervised and mandatory internship model that associates the Initial Teacher Training with the Continuing Teacher Training, who are teachers of public schools, located in the city of Guarulhos (SP) that establish, together with UNIFESP, technical cooperation agreements.

The other project, called The Teaching Residency Program (PRD), is an experience created by Colégio Pedro II, characterized as a Lato Sensu Graduate Course (Specialization) with an idea set in models of Continuing Education of Newly Graduated Primary Education Teachers, working as a priority, in the Municipal and/or State network present in the State of Rio de Janeiro. The PRD allows the resident teacher to experience school environments different from those where he/she works, in which he/she will have the opportunity to accompany other teachers, learn aspects of school management and perform a pedagogical intervention in one or more classes in which he/she will be performing his/her residency.

In addition to these experiences, it is worth noting that, in 2018, CAPES published Gab Ordinance No. 38 of February 28, 2018 (BRASIL, 2018), which instituted the Pedagogical Residency Program (PRP). The dynamic of such a program is done through public notices in which Higher Education Institutions (HEIs) from all over the country submit proposals for Institutional Projects that can bring together different Undergraduate courses in the structure of subprojects. Among the activities developed in the PRP is the regency, in which undergraduate students, accompanied by a teacher of the school (preceptor), develops teaching activities.
The first edition of the PRP was launched in The Notice 06/2018/CAPES with the main objective of Higher Education Institutions (HEIs) for the implementation of innovative projects that stimulate the articulation between theory and practice in undergraduate courses, conducted in partnership with public basic education networks.

In 2020, the Coordination for the Improvement of Higher Education Personnel (CAPES) made public a new selection of Higher Education Institutions (HEIs), interested in implementing institutional projects under the Pedagogical Residency Program (PRP), described in Notice No. 01/2020/CAPES, of Ordinance No. 38/2018/CAPES (BRASIL, 2018).

By analyzing both edicts it is possible to perceive similarities and differences between them. We observed that both the PRP/CAPES 2018 Notice and the PRP/CAPES 2020 Notice present the same objectives as the implementation of the PRP. However, there are some significant differences:

i) Both the PRP/CAPES 2018 Notice and the PRP/CAPES 2020 Notice show differences regarding the activities and hours allocated during the PRP trajectory;

ii) In the PRP/CAPES 2018 Notice, it can be seen that the PPR had a total of 440 hours of activities distributed as follows: 60 hours destined to the environment at school; 320 hours of immersion, 100 of which will include the planning and execution of at least one pedagogical intervention; and 60 hours for the preparation of final report, evaluation and socialization of activities. In the PRP/CAPES 2020 Notice, it had a total of 414 hours in a period of 18 months, of which the total time was divided into 3 modules, in which each module includes a total of 138 hours of activities, which were divided into: 86 hours of team preparation, study on the contents of the area and on teaching methodologies, familiarization with the teaching activity through the setting in the school and semi-structured observation in the classroom, preparation of the resident's report together with the preceptor and the guiding teacher, evaluation of the experience, among other activities; 12 hours of preparation of lesson plans; 40 hours of conducting with preceptor follow-up.

Tinti, Silva and Faria (2021), when analyzing the distribution scenario of the residents' scholarships of the PRP/CAPES 2020 Notice, indicate that the PRP was present in all states and in approximately 20% of Brazilian municipalities. In addition, the authors indicate that more than 85% of the quotas for residents were conquered by Public HEIs, and this percentage highlights the Federal Universities.
Methodology

This research assumed the qualitative perspective (BOGDAN; BIKLEN, 1994) of the participant research type, which can be understood as:

[...] a type of empirically based social research that is conceived and carried out in close association with an action or with the resolution of a collective problem and in which researchers and participants representing the situation or problem are involved in the operative or participatory mode (THIOLLENT, 2011, p. 14, our translation).

Thus, the choice for this type of research was based on the fact that the author simultaneously exercised the role of researcher and participant of the study.

The present research had as general objective: to investigate the implementation actions of the Mathematical subproject of PRP/XXXX throughout the first module.

We sought to answer the following question: what were the actions developed by the Mathematical subproject of PRP/XXXX aiming at the implementation of the first module?

To make up the experience of the development of the activities of the Mathematics subproject, we analyzed the monthly reports of one of the residents who, to maintain anonymity, we will call him "Resident A".

Thus, 5 reports of Resident A were analyzed in order to identify the actions that were performed. In possession of the actions, we started a categorization process seeking to group the actions according to the same characteristic or focus.

This movement allowed us to group the actions into five categories:

1. Planning of the actions of the Mathematical subproject of the PRP/XXXX;
2. Actions aimed at the (re)knowledge of the school context;
3. Remote regency activities;
4. Moments of socialization and sharing of experiences;
5. Moments of studies and deepening of theoretical discussions.

It is also important to highlight that we consider the researcher's diary as a data source. This instrument helped us in the organization of the data, especially regarding the trajectory of the subproject.

After choosing the categories, we started a process of interpretation and discussion of the data, as we will present below.
Analysis

We present below a descriptive analysis of the actions developed by the Mathematical subproject of PRP/XXXX throughout the 1st implementation module of the Program. Because it is a descriptive and longitudinal perspective, it interested us to present elements that would enable us to understand how the subproject was constituted, organized and dynamized. ³

Thus, after the documentary analysis exercise of the reports of the residents participating in the research, we chose to organize the presentation in 5 moments, that is:

1. Planning of the actions of the Mathematical subproject of the PRP/XXXX;
2. Actions aimed at the (re)knowledge of the school context;
3. Remote regency activities;
4. Moments of socialization and sharing of experiences;
5. Moments of studies and deepening of theoretical discussions.

Planning the actions of the MATHEMATICAL SUBPROJECT of PRP/XXXX

On August 25, 2020, the Pro-Rectory of Graduation (PROGRAD) of XXXX, launched an Edict to start the process of selecting scholarship holders to work in the PRP.

The PRP subproject focused on the Degree course in Mathematics at XXXX, made available, in this Notice, 16 scholarships for residents. The subproject was under the responsibility of two guiding professors, both linked to the Department of Mathematics Education (DEEMA).

After the selection process of the scholarship holders, the selection of two preceptors was initiated, that is, teachers who worked in public schools in the city of Ouro Preto, qualified to participate in the PRP/XXXX. A preceptor from the XXXX School and another from the XXXXX State School was selected. Such schools will be called a field school, as provided for in CAPES Notice 01/2020. After these two selection processes, the Mathematical subproject of the PRP/XXXX was initiated. ⁴

Due to the current moment in which we are, that is, in social isolation, due to the proliferation of the SARS-CoV-2 virus or Novo Coronavirus, the PRP planning had to be changed and the program activities had to start, in this 1st module, as the field schools, that is, from the perspective of Emergency Remote Education.

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³ Period from October 2020 to March 2021.
⁴ From this point on, we will call the Mathematical subproject the subproject linked to the PRP of the XXXX.
Many doubts and controversies arose about a possible return date of face-to-face classes, so that on April 17, 2020, Resolution SEE/MG no. 4,310 was published, which had the rules for the provision of the Special Regime of Non-Face-to-Face Activities (REANP) established in the State Schools of the Public Network of Basic Education and Professional Education of Minas Gerais, due to the COVID-19 pandemic, to meet the minimum required workload, with a return of activities scheduled for May 14, 2020.

The SEE/MG intended, with such positioning, to disclose that schools should reorganize themselves regarding the school calendar, taking into account applications of activities, through emergency response teaching, in order to minimize the educational losses that students had during the period without classes.

In this scenario, XXXX, in turn, had to position itself in relation to the performance of supervised curricular internships in the pandemic period. The PROGRAD Ordinance No. 5 of February 4, 2021 was published, which provides for guidelines for carrying out mandatory supervised internships with mediation of the communication and information technology in the undergraduate courses of XXXX, during the period of remote activities due to the COVID-19 pandemic.

Therefore, with regard to Higher Education, aspects related to the provisions of Ordinances No. 343 and 345 of March 2020 were treated and, to a certain extent, extended to the responsible practices of course offerings and the activities and disciplines related to them, especially with regard to laboratory classes and practical activities, as complementary, internship, among others. As for practical activities, internships or extension, they are strongly related to learning and often located in the final periods of the courses. If the course learning as a whole does not allow classes or face-to-face activities, it would be expected that students in the internship or didactic practices would be provided, in this exceptional period of the pandemic, with an adequate way of fulfilling it.

Due to the difficulty of actions necessary to perform the hours of mandatory activities in the internship, from this decree, participation in the PRP proved to be an alternative for the fulfillment of the hours related to the Supervised Curricular Internship of the Undergraduate Courses of XXXX.

Considering this challenging context, the Mathematics subproject PRP/XXXX sought alternatives to suit the context and nature of the Program. The following is a summary table of planned and developed actions.
Table 1 – Timeline of the meetings of the Mathematical Subproject PRP/XXXX

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/10/2020</td>
<td>Presentation of the Mathematical Subproject PRP/XXXX</td>
<td>Teaching advisors, preceptors and residents</td>
</tr>
<tr>
<td>29/10/2020</td>
<td>Presentation of the Platform &quot;Study at Home&quot;</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>05/11/2020</td>
<td>Discussion about the creation of the residents’ presentation video and the single questionnaire</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>12/11/2020</td>
<td>Debate on the results obtained in the completion of the questionnaire by the students</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>19/11/2020</td>
<td>Space for possible doubts of residents regarding PRP activities</td>
<td>Teacher advisor and residents</td>
</tr>
<tr>
<td>03/12/2020</td>
<td>Meeting based on the distribution of future activities related to the Tutored Study Plan (PET)⁵ for residents</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>10/12/2020</td>
<td>Meeting based on the distribution of future PET activities to residents</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>17/12/2020</td>
<td>Knowledge of residents regarding final PET and discussions about the creation of video classes as a study review for students</td>
<td>Teacher advisor, preceptors and residents</td>
</tr>
<tr>
<td>07/01/2021</td>
<td>Space for debates on the best performance of the methodology to be used for the creation of the final PET video classes.</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>14/01/2021</td>
<td>Information and future theoretical activities after the end of the classes of the 1st module.</td>
<td>Teacher advisor, preceptors and residents,</td>
</tr>
<tr>
<td>27/01/2021</td>
<td>Information about the school calendar for the 2nd module.</td>
<td>Preceptor and residents</td>
</tr>
<tr>
<td>04/02/2021</td>
<td>Space for deciding the dates and times for the next meetings.</td>
<td>Guiding teachers and residents</td>
</tr>
<tr>
<td>16/02/2021</td>
<td>Discussions of the texts on the themes of gender relations and inclusion.</td>
<td>Guiding teachers and residents.</td>
</tr>
<tr>
<td>23/02/2021</td>
<td>Debate of the article on the Teaching of Youth and Adults (EJA).</td>
<td>Guiding teachers and residents.</td>
</tr>
</tbody>
</table>

Source: Produced by the authors (2021)

It is important to say that, because it is a totally new moment for the participants of the Mathematical subproject of the PRP/XXXX, the actions were being discussed and (re)planned throughout the module, respecting the demands of the field schools and the specificities of the PRP. Since, prp Notice 01/2020 signals that:

4.2. The 138-hour modules that make up the pedagogical residency project should include the following activities:
   a) 86 hours of team preparation, study on the contents of the area and on teaching methodologies, familiarization with the teaching activity through the setting in school and semi-structured observation in the classroom, preparation of the resident's report together with the preceptor and the guiding teacher, evaluation of the experience, among other activities;
   b) 12 hours of preparation of lesson plans; and

⁵ Developed by the Department of Education of the State of Minas Gerais (SEE/MG), PET is a handout with contents and with a set of activities related to each year/school grade, respecting the monthly workload of the course for each student. The material is organized considering the subjects of all the subjects provided for in each stage of teaching, as established in the Reference Curriculum of Minas Gerais (CRMG) and in the National Common Curriculum Base (BNCC). The PET's available through the link: https://estudeemcasa.educacao.mg.gov.br/pets.
Thus, the analysis we performed allowed us to observe that the activities developed by the Mathematical subproject of the PRP/UFO, contemplated the guidelines of CAPES, XXXX and SEE-MG about the context of Emergency Remote Education.

**Actions aimed at (re)knowledge of the school context**

The first action developed by the residents, focusing on the students of the field schools, was the creation of a presentation video, containing all the residents participating in the Mathematical subproject of the PRP/XXXX, in order to present the members and objectives of the PRP.

In the second meeting with the guiding teacher, it was defined that the sixteen residents would create and propose to the students of the schools a single questionnaire (Appendix A) in order to know the profile of the students and how they were dealing with the context of Remote Education. In addition, residents created a *WhatsApp group* to facilitate communication between them at the time of the survey creation.

On the day of the unique survey, residents met on *Google Meet* for better communication between members. Debating ideas and discussing some suggestions, which were put by the guiding professors, the residents offered ideas and discussions were asked about the questions that wrote them in the best way, so that the questionnaire had clear and objective questions. (Resident A Report, November 2020).

According to the analyzed reports, it was possible to observe that, during the debate of the residents in the formulation of the questionnaire, resident A proposed the insertion of questions 10 (Have you done the PET of mathematics within the given time?) and 11 (Which PET have you completed/delivered so far).

After this movement, the residents sent the questionnaire to the students and waited for the return. From the moment the residents already had the questionnaire completed, it was necessary for each resident to perform an analysis of the responses of the students who belonged to the classes that were accompanying with the preceptor.

Considering the answers obtained, it was proposed by the preceptors that the residents prepare a schedule, containing the days of the week and the times when they would make video lessons available to assist students in the study of PET. This schedule was later sent in the *WhatsApp groups* of the classes.
As we can see, the initial actions focused on processes of organization, strategies of knowledge and intervention in the school reality, as well as ways of recording the activities to be carried out.

Regarding this movement of knowing the school reality, Tinti and Manrique (2012) alerts us to the importance of actions for this purpose, since the insertion of the resident is a "way to familiarize him with the school culture; with educational practices and the main challenges faced by educators in the current educational context" (p. 47).

However, what would this current educational context be? As it was possible to observe, this movement experienced by the residents of the Mathematical subproject of the PRP/XXXX is the reflection of the teaching work in the context of the Covid-19 pandemic.

In the educational field, teachers begin to seek the most different means to meet their students and they try to follow this journey, but this is not always possible or simple. The point is that an event with global dimensions affects everyone, but in a very different way, not only by the differences and singularities of each one, but also by the social, economic, racial and gender conditions (MONTEIRO; SENICATO, 2020, p. 320, our translation).

Thus, the analysis of the reports allowed us to observe that the relationship between theory and practice, desired by the PRP, was dynamized through actions that followed the guidelines of the institutions involved, as mentioned above. Thus, we can observe that the actions developed were the ones that proved possible and that, as far as possible, they provided moments of learning for students of Basic Education.

Remote regency activities

A central feature of PRP are the conducting activities in basic education schools. However, the pandemic scenario has imposed significant changes to school practices, since:

We redefined what we understood by face-to-face. Today our meetings are virtual. Our classroom has become a Google Meet link that we open on our phone or on our computer. The pencil and chalk were replaced by the digitizing pen, mouse, computer keyboard, and mobile phone touchscreen. The interval between one class and another became the time dedicated to changing links. The corridors don't exist anymore. The interaction is done by messages, videos and audios. Most books are accessed in digital files. The reports of an evaluation are now sent in a photo. You can no longer hear parallel conversation, as it was started to be done behind the mutated microphones. Voices, noise and a look of distraction have never been so missed in a classroom. There have certainly been changes in interactions. New modes of communication emerged in remote education and, consequently, some media that we were already accustomed to in the face-to-face
environment lost space. Such changes have had an important impact on the learning of all participants (FARIA et al., 2021, p. 9-10).

How to think, implement, monitor, evaluate and resize regency practices in the context of emergency remote education? We believe that this was a recurring question in different contexts of implementation of the PRP. Next, we will try to highlight the actions developed by the Mathematics subproject PRP-XXXX regarding the regency.

As mentioned earlier, residents opted for the dynamics of creating video classes to assist students in their studies. On the structuring of the video classes, the group defined that it would be at the discretion of each resident. In this sense, the analyzed reports indicated that some residents, such as resident B, chose to photograph activity resolutions and send them together with an audio explaining the solution procedure. We also observed that other residents, as was the case of resident A, chose to record videos presenting the resolution of questions. Such videos were posted on YouTube channels and made available through links in the WhatsApp groups of the classes.

It is important to highlight that the insertion of residents in the WhatsApp groups of the classes was only performed by the preceptor after the conclusion of the elaboration of the proposals for intervention of the residents. After the insertion of residents in WhatsApp groups, a more direct communication process with the students of the classes was initiated, helped by the sending of video classes, which would support the study of PET.

After analyzing the reports, we observed that, by the end of November 2020, the residents were in charge of creating video classes referring to the week of study of PET, making the material available to the students and also of being available, on dates and times combined with the class, to help clarify doubts.

The analyzed reports indicate that residents had to prepare materials for 5 weeks of study, respecting the organization of PET (from 3 to 7). Thus, each week, the resident "should choose two questions, of any content of each PET and create their classes based on these activities that each one chose, but also, the residents of each year should organize not to hold a class about the same activity" (Resident Report A, November 2020).

It is worth mentioning that the 5 weeks of PET studies occurred in November and December 2020 and that, in the first two weeks of December 2020, each resident was in charge of creating the video classes, with review content for the final test, which would take place in the second week of January 2021.

Given a context of the COVID-19 pandemic, causing social isolation, education systems have received numerous ordinances and laws, due to a new perspective of remote teaching.
aiming to substantially minimize the impacts that such social context impacts on educational issues.

In view of the new challenges that educators have been facing, in the pandemic period of COVID-19, a new perspective emerges in the teaching/learning process and also with regard to the realization of internships. Thinking about this new and challenging context, "it is necessary to develop new competencies based on existing skills, with studies and research, as well as new pedagogical platforms, to meet educational needs" (GONÇALVES; AVELINO, 2020, p. 49, our translation). However, a new discussion arises regarding the access that the general population has in relation to the Internet, because as educational reflection drives teaching strategies focused on the technological field, this teaching/learning process becomes democratic the moment all students have access to such digital platforms aimed at teaching.

Based on a family context, the teaching work suffers from precariousness, families suffer from the new function attributed to them, in which the mother, father, grandparents and guardians become the teachers of their children and, likewise, children suffer from isolation, with the distance of those they love and with the longing for the school space. Through this:

It is noteworthy that many nuances permeate the teaching activity and that, in the case analyzed, even with the difficulties, the moment is the resignification of the role and practice of the teacher and how much is necessary a public policy of financial and socio-pedagogical support in this context, in addition to strengthening the bonds between school and the community (ROLIM et al., 2020, p. 229, our translation).

Moreover, Gonçalves and Avelino (2020) highlight that the use of the Internet has caused significant changes, both in face-to-face education and in distance education. Even though face-to-face teaching was restricted only to research in the computer room, it was precisely this educational work that helps remote teaching in homes, in times of pandemic. With social networks, digital platforms and other technologies, the contact between teachers and students has become increasingly narrowed. With this, the need for teaching has expanded the possibilities of new horizons from synchronous tools such as web conferences and chats, and asynchronous, such as discussion forums, emails or blogs.

Relating to what we have cited so far, it is understood that the use of digital media has a huge potential to boost knowledge and provide greater efficiency to educational practices, considering its power of interaction, which contributes to overcome the challenges faced by education, especially in times of the COVID-19 pandemic. Therefore, the production of knowledge through the use of media and their technological resources is necessary and should be promoted by educators in initial training and continuing education courses.
Thus, we can perceive that the moments of regency by residents along module I of the PRP is related to the fourth idea of teacher training mentioned by Ponte (2002), called "technical competence", in which it is advocated that it is not enough for the teacher to only know theories, perspectives and results of research. It is necessary that he is able to build appropriate solutions for the various aspects of his professional action, which requires not only the ability to mobilize and articulate theoretical knowledge, but also the ability to deal with concrete situations, skills that have to develop progressively throughout his training during the initial training stage and throughout the professional career.

The analysis allowed us to show that the regency experiences that residents had in this period correlate with this idea of Ponte (2002), given that the residents were responsible for planning the best way to promote teaching during the current pandemic scenario of COVID-19, in addition to the way they interacted with their respective students.

Moments of socialization and sharing of experiences

The movement of analysis of the reports allowed us to realize that, throughout module 1, different moments of socialization and sharing of experiences were promoted based on the following interactions: i) teacher advisor-preceptor-residents; ii) preceptor-residents; and iii) advisory-resident professor.

Next, we will try to highlight the movement of socialization and sharing of experiences that emerged in these interactions.

Moments of socialization and sharing of experiences among teacher-advisors-preceptors-residents

In the analysis of the reports, it was possible to identify that, in the first meeting of the Mathematical subproject of PRP/XXXX, the following actions were triggered:

1) Presentation of the Pedagogical Residency Program;
2) Presentation of the guiding teachers, the two preceptors and the two selected schools;
3) Distribution of residents to preceptors and consequently to schools;
4) Division of residents for elementary and high school classes of selected schools;
5) Answers to possible doubts about the PRP process.
From that first meeting, it was agreed that residents should commit to the following actions:

I) Preparation of monthly reports, divided into two parts, namely: **Part 1: Filling** a table highlighting the date of all actions of PRP residents, containing a brief summary of the activity carried out as well as those involved in each activity. **Part 2:** Presentation of the entire process of the activity that was carried out, counting the start time of the activity, by which platform the meeting was held and what were the events highlighted in the activities;

II) Participation in weekly meetings, some of them with the participation of the guiding teacher and others, with the participation of preceptors, in order to discuss future actions of care and assistance to students;

III) Knowledge of the virtual platform "Study at Home" and pet support materials, which will serve as a basis for the study of elementary and high school students;

IV) Creation, with the collaboration of all sixteen residents, of a single questionnaire for sending elementary and high school students, in order to acquire a first contact with students and have a basic knowledge about them.

V) To define, what would be the method used by each resident, to assist in the study of the pet contents of elementary and high school students.

The last meeting of the 1st module took place on December 17, 2020, via **Google Meet**, with the participation of the guiding professor, the preceptor and the residents. The focus of this meeting was above the final test that students would take in the coming weeks as the conclusion of the school year. At this meeting, it was discussed how would be the help that residents would adopt to assist students in their last test. It was decided that the residents would produce video lessons (as they did in previous weeks), but the dynamics used would be modified. Instead of the residents solving some selected PET problems, they would produce a video lesson producing a review of the content that would be addressed in the final exam.

The meetings of the guiding professor, preceptors and residents presented, as main focus, two moments: the 1st of them, the objective was to present the mathematical subproject of the PRP/XXXX to the residents and to discuss possible doubts about the future activities, calendars, actions that the residents would take. In the second moment, the focus was to provide
spaces of synthesis about the trajectory of residents regarding the Mathematical subproject of PRP/XXXX.

**Moments of socialization and sharing of preceptor-resident experiences**

It is important to highlight that, according to the report of Resident A, this second meeting was held individually by each preceptor and his group of residents. At this meeting, each preceptor explained to the residents how the planning/study schedule was made by SEE-MG. In addition, each preceptor accessed and presented the operation of the platform "Study at Home" and then the structuring of PET. The analyzed reports indicate that, in these individual meetings, each preceptor talked and guided the residents in relation to the forms of direct contact with the students.

On November 3, 2020, there was a meeting with the participation of preceptors and residents, where they aimed to discuss the creation of a video, containing the information of all PRP residents, with the purpose that, with the sending of the recording to the students of XXXX and XXXXX, they can know minimally the residents who helped them in the Process of Remote Education.

The meeting that took place on November 12, 2020, with the participation of preceptors and residents, addressed a discussion about the students' answers regarding the questionnaire, with the aim of understanding a more effective way to introduce communication with students through the answers. As mentioned above, according to the responses of students from each year of elementary and high school, each group of residents determined schedules per class, where the actions of the residents would best assist the students.

The meetings with the participation of the preceptor and the residents had, as main focus, to make available moments of an insertion in the school context, in the face of a pandemic, planning activities to be carried out by residents, such as video classes, meetings to solve doubts with students, as well as suggestions given to residents regarding possible improvements in the trajectory of the Mathematical subproject of the PRP/XXXX.
Moments of socialization and sharing of guiding-resident teaching experiences.

At the end of the activities related to PET, by the residents of the PRP, the next actions of meeting were debates and theoretical discussions, about articles that the guiding professor forwarded to the residents.

Thus, on February 16, 2021, there was a meeting between the guiding teachers and the residents, where the main focus of this meeting was to provide a space for a debate about the texts to be read, being them, a text on inclusion, "Gender Relationship – between threads and discursive plots" and an article referring to gender relations, in what is called "Inclusive Practices in Mathematics Education: a collaborative work with teachers of the 1st cycle". At this meeting, according to the report of resident A, the debate presented topics to be discussed about inclusion and gender relations, as well as addressing possible experiences that residents had regarding the issues addressed and made it possible to answer some questions about the topics.

The next meeting, held on February 23, 2021, aimed to present a space for teachers and residents to discuss information and reports about the reading of the article "Case study with mathematics teachers of the EJA and their teaching practices". As highlighted in the report of resident A, in the discussion environment of this meeting, it was possible to discuss the focus and objective of the article regarding the possible experiences of residents and thinking ahead, in the professional training of PRP residents.

The meetings with the guiding professor and the residents presented, as main focus, a theoretical-methodological deepening of aspects of teaching and learning mathematics. As we can perceive, according to what was mentioned above, in these meetings, the teacher suggested articles and dissertations to residents, in which, such texts, highlighted subjects to be discussed, such as future teachers, involved in the educational field, being, for example, gender equality relations, inclusive practices and etc.

When analyzing the reports about the moments of socialization, we observed that they resemble the third teacher education advocated by Ponte (2002), called "Education in the educational domain". This author argues that, in the context of training focused on an educational experience, emerges, as a factor of relevance, the heritage of Pedagogy, where the contributions of the Educational Sciences, the reflection on the educational problems of the world today, the problems and contributions of research carried out by didactics and other areas of the educational sciences, are, of course, essential elements in the constitution of teaching professionality. Therefore, according to the above, such moments of socialization of residents
Moments of studies and deepening of theoretical discussions

Data analysis allowed us to identify that in the actions developed in the guiding-resident teacher relationship there was a movement of studies and deepening of theoretical discussions, a fact that motivated us to structure this category of analysis.

After the closure of the 1st module, some activities were forwarded to the residents, pre-established in meetings with the guiding professor, in which they would serve as a study for future teachers and after reading the texts, the residents, together with the teacher, would discuss the main ideas in the meetings.

The first activity was the reading of the text "Relationship of Genres - between threads and discursive plots", authored by Maria Celeste Reis Fernandes de Souza and Maria da Conceição Ferreira Reis Fonseca. The purpose of reading this text was based on the study followed by discussions with colleagues on some subjects addressed in the text and the knowledge of the philosopher/writer Michel Foucault, in which this author and the text present ideas and experiences, in the school context, of certain moments when it was noticeable a lack of knowledge of students, about egalitarian rights between genders and attitudes, departing from speeches and actions, which required control and preparation by the teacher when faced with certain situations in the school environment.

A next reading was related to the article "Inclusive practices in Mathematics Education: a collaborative work with teachers of the 1st cycle", written by Carlos Miguel Ribeiro. This article presents a study referring to the enormous immigration flow that schools in Portugal have been facing and, consequently, teachers in the region are experiencing a new reality, that among their classes there is a great diversity of origins, experiences, cultures and mother tongues. The importance of reading and then answering some questions properly elaborated by the PRP advisory professor regarding the article defines the existing importance of a possible experience and attitudes that residents, as future teachers, should have and know about such events.

In addition, a last reading refers to the residents, was related to the article "Case study with mathematics teachers of the EJA and their teaching practices", written by Andréa Thees and Maria Cecilia Fantinato. This work aims to present a case study with three teachers who work with EJA classes, where a study was developed about curriculum management about EJA
students, public policies segmented to this target audience and the difficulties that teachers face with students, based on the work in order to answer the following question: "How are mathematics teachers developing their teaching and non-teaching practices in the education of young people and adults?"

This moment of studies and deepening of theoretical discussions with the guiding professor is related to the fifth stage of initial teacher training according to Ponte (2002), in which such training addresses the capacities and attitudes of critical analysis, innovation and pedagogical research. In this training, the author points out that the teacher is not a mere technician or a simple transmitter of knowledge, but a professional who has to be able to identify the problems that arise in his activity, seeking to build appropriate solutions. Therefore, according to the exchanges of experiences and studies from which the residents obtained throughout module I of the PRP, such events are similar to the activities of this topic, in the sense that the readings of the articles present moments in the classroom that were presented and discussed by their respective authors, besides being discussed also by the guiding professor for/with the residents, to present and train future teachers in the face of obstacles arising from the school environment.

**Final considerations**

The present research aimed to investigate the implementation actions of the Mathematical subproject of PRP/XXXX throughout the first module.

Initially, we conducted a study on the notion of Pedagogical Residency as well as projects that were proposed with this perspective. The study culminated in the analysis of the CAPES PRP Notices, in particular, Notice 01/2020 (BRASIL, 2020).

Considering that the PRP involves teacher training and, more specifically, the subproject investigated is concerned with the training of mathematics teachers, we conducted a review, seeking to understand the complexity that is this process. Among the readings performed, Ponte's research (2002) made it possible to develop an outline of an understanding about the contributions of the five dimensions, understood by the author, to the formation of a teacher. We can interpret, from the ideas of Ponte (2002), that the teacher is not a mere technician or a simple transmitter of knowledge, but a professional who has to be able to identify the problems that arise in his activity, seeking to build appropriate solutions. For this, it is necessary that the teacher has significant competencies in the field of critical analysis of situations and the production of new knowledge aiming at its transformation.
This basis on the understanding of PRP as a Public Policy as well as the understanding of the complexity of initial training, we are dedicated to analyzing the reports of a resident of the Mathematical subproject of PRP/XXXX in order to answer the following research question: what were the actions developed by the Mathematical subproject of PRP/XXXX aiming at the implementation of the first module?

To answer it, we will use the categories we choose: i) Planning of the actions of the Mathematical subproject of THE PRP/XXXX; ii) Actions aimed at the (re)knowledge of the school context; (iii) remote regency activities; iv) Moments of socialization and sharing of experiences; and v) Moments of studies and deepening of theoretical discussions.

In relation to the activities that included the planning of the actions of the Mathematical subproject of the PRP/XXXX, it was possible to observe an effort on the part of the Guiding Professor and the preceptors to help the residents to develop actions that observed the guidelines of CAPES, SEE-MG and XXXX, but also had a contribution to the training of future teachers.

Regarding the actions aimed at the (re)knowledge of the school context, it can be seen that the analysis of the reports allowed us to observe that the relationship between theory and practice, desired by the PRP, was dynamized through actions that followed the guidelines of the institutions involved, as mentioned earlier. Thus, we can observe that the actions developed were the ones that proved possible and that, as far as possible, they provided moments of learning for students of Basic Education.

With regard to remote regency activities, it is understood that the use of digital media has a huge potential to boost knowledge and provide greater efficiency to educational practices, considering their power of interaction, which contributes to overcome the challenges faced by education, especially in times of the COVID-19 pandemic. Therefore, the production of knowledge through the use of media and their technological resources is necessary and should be promoted by educators in initial training and continuing education courses. In addition, the meetings of the teacher advisor, preceptors and residents presented, as main focus, two moments: the 1st of them, the objective was to present the mathematical subproject of the PRP/XXXX to the residents and to discuss possible doubts about the future activities, calendars, actions that the residents would take.

In the moments of socialization and sharing of experiences analyzed, the meetings of the guiding professor, preceptors and residents presented, as main focus, two moments: the 1st of them, the objective was to present the Mathematical subproject of the PRP/XXXX to the residents and to discuss possible doubts about future activities, calendars, actions, which the residents would take. In the second moment, the focus was to provide spaces of synthesis about
the trajectory of residents regarding the Mathematical subproject of PRP/XXXX. On the other hand, the meetings with the participation of the preceptor and the residents had, as their main focus, to make available moments of an insertion in the school context, in the face of a pandemic, planning of activities to be carried out by residents, such as video classes, meetings to solve doubts with students, as well as suggestions given to residents regarding possible improvements in the trajectory of the Mathematical subproject of the PRP/XXXX. Finally, the meetings with the guiding professor and the residents presented, as main focus, a theoretical-methodological deepening of aspects of teaching and learning mathematics. As we can perceive, according to what was mentioned above, in these meetings, the guiding professor suggested articles and dissertations to residents, in which, such texts, highlighted subjects to be discussed, such as future teachers, involved in the educational field, being, for example, gender equality relations, inclusive practices, etc.

Finally, analyzing the moments of studies and deepening of theoretical discussions, these presented an important stage, since the actions necessary for the formation of quality of the resident are not only based on practical activities, but also on theoretical analyses and discussions, on subjects focused on the field of Education, especially mathematics.

When we reflect on the limitations of our study, I recall some initial ideas that were planned, together with my advisor, how to interview Resident A, in order to have a clearer view of the resident about his trajectory in the PRP, or even analyze reports from other residents of the Program, in which they would contemplate a greater diversity of information during the PRP module I process.

Thinking about the continuity of this study, it is important to emphasize that the ideas that were presented in this work are not the only ones that exist. In view of this assumption, we present some suggestions for the continuity of the present study: i) the expansion of analysis on the reports obtained from the other residents of the PRP; ii) analyze, during the process of activities of module II, whether they were the same as those implemented in module I; and ii) interview some resident and/or preceptor of the school field, in order to analyze their perceptions and collaboration that the PRP presented and contributed to their training.

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