

Teacher communities of practice: shared repertoire in elementary education

Renata Godinho Soares^{1*}, Cátia Silene Carrazoni Lopes Viçosa¹, Cadidja Coutinho² and Raquel Ruppenthal¹

¹Universidade Federal do Pampa, Av. Ministro Assis Brasil, 472, 97511-800, Uruguaiana, Rio Grande do Sul, Brasil. ²Universidade Federal de Santa Maria, Santa Maria, Rio Grande do Sul, Brasil. *Author for correspondence. E-mail: renatasoares1807@gmail.com

ABSTRACT. When dialoguing about teacher education, we perceive a movement in search of self-training, or school-centered training, which begins and culminates in the needs and demands arising from the teachers' context. One possibility that has been studied and expanded to several areas of education is the use of communities of practice in the promotion of reflection, autonomy, engagement and transformation of contexts and adverse situations. Thus, the Communities of Practice promote a new look at teacher education, thus, with this study, we sought to analyze the process of initial cultivation of communities of practice, observing the shared repertoires of four school contexts of teachers from the final years of elementary school. Participants were participants in six teachers from four schools (state and municipal) of a municipality on the western border of Rio Grande do Sul. As a result, we analyzed the initial interactions and the first intervention for these contexts, so that positive and negative aspects are identified in the practice of teachers, as well as in their relationship with their peers and the school community. The main difficulty encountered was the lack of school commitment of students and also the family to the learning process in the return to face-to-face teaching. On the other hand, the most emphasized positive aspect was the return to the school environment after an emergency remote education period. The importance of establishing a cyclical and dynamic process in the interaction and collaboration between researchers and basic education is highlighted, so that it is effective to assist in the school environment, using data to contribute directly to school, and not only to record research.

Keywords: teacher training; basic education; collaborative work; school reality.

Comunidades de prática de professores: repertório compartilhado no ensino fundamental

RESUMO. Ao dialogar sobre a formação de professores, percebe-se um movimento em busca de uma auto-formação, ou formação centrada na escola, a qual inicie e culmine nas necessidades e demandas oriundas do contexto dos professores. Uma possibilidade que tem sido estudada e ampliada para diversas áreas da educação é a utilização de comunidades de prática na promoção da reflexão, autonomia, engajamento e transformação dos contextos e situações adversas. Deste modo, as Comunidades de Prática fomentam um novo olhar sobre a formação de professores, assim, com este estudo, buscou-se analisar o processo de cultivo inicial de comunidades de prática, observando os repertórios compartilhados de quatro contextos escolares de professores dos anos finais do ensino fundamental. Foram sujeitos participantes 63 professores de quatro escolas (estaduais e municipais) de um município da fronteira oeste do Rio Grande do Sul. Como resultado, foram analisadas as interações iniciais e a primeira intervenção para com estes contextos, de modo que se identifique aspectos positivos e negativos na prática dos professores, bem como, na relação destes para com seus pares e comunidade escolar. A principal dificuldade encontrada versou sobre a falta de comprometimento escolar dos estudantes e também da família para com o processo de aprendizagem no retorno ao ensino presencial. Em contrapartida, o aspecto positivo mais salientado foi o retorno ao ambiente escolar após período de ensino remoto emergencial. Destaca-se a importância de estabelecer um processo cíclico e dinâmico na interação e colaboração entre pesquisadores e educação básica, de modo que seja efetivo o auxílio no ambiente escolar, utilizando-se de dados para contribuir diretamente na escola, e não apenas para registro de pesquisa.

Palavras-chave: formação de professores; educação básica; trabalho colaborativo; realidade escolar.

Comunidades de práctica de maestros: repertorio compartido en la escuela primaria

RESUMEN. Al dialogar sobre la formación docente, percibimos un movimiento en busca de la autoformación, o formación centrada en la escuela, que comienza y culmina en las necesidades y demandas derivadas del contexto docente. Una posibilidad que se ha estudiado y ampliado a varias áreas de la educación es el uso de comunidades de práctica en la promoción de la reflexión, la autonomía, el compromiso y la transformación de contextos y situaciones adversas. Así, las Comunidades de Práctica promueven una nueva mirada sobre la formación docente, por lo que, con este estudio, buscamos analizar el proceso de cultivo inicial de las comunidades de práctica, observando los repertorios compartidos de cuatro contextos escolares de maestros de los últimos años de la escuela primaria. Participaron seis profesores de cuatro escuelas (estatal y municipal) de un municipio de la frontera occidental de Rio Grande do Sul. Como resultado, analizamos las interacciones iniciales y la primera intervención para estos contextos, para que se identifiquen aspectos positivos y negativos en la práctica de los docentes, así como en su relación con sus pares y la comunidad escolar. La principal dificultad encontrada fue la falta de compromiso escolar de los estudiantes y también de la familia con el proceso de aprendizaje en el retorno a la enseñanza presencial. Por otro lado, el aspecto positivo más destacado fue el regreso al entorno escolar después de un período de educación remota de emergencia. Se destaca la importancia de establecer un proceso cíclico y dinámico en la interacción y colaboración entre los investigadores y la educación básica, de manera que sea eficaz para ayudar en el entorno escolar, utilizando datos para contribuir directamente a la escuela, y no sólo para registrar la investigación.

Palabras-clave: formación del profesorado; educación básica; trabajo colaborativo; realidad escolar.

Received on December 29, 2022.

Accepted on July 19, 2023.

Published in May 21, 2025.

Introduction

When studying Teacher Education, one focuses on the perspective of training that engages in dialogue, reflects, and acts upon and within the context in which teachers are inserted. Thus, Imbernón (2001) argues that this training must be related to curricular tasks, activity planning and also to improving the educational institution, in order to “[...] resolve general or specific problematic situations related to teaching in its context” (Imbernón, 2001, p. 18). In agreement with this perspective, Nóvoa (2002) argues that when discussing the continuous training of teachers, it is of utmost importance to establish networks of participatory self-training, that is, groups that enable the understanding of the totality of the individuals involved. These groups bring forth a process that, in addition to being continuous, must also be dynamic and interactive.

In this sense, continuous training must be capable of mobilizing teachers for collective and also interdisciplinary work (or multi-area [In this work, we use the expression multi-area due to the training of the researchers, who, although they develop collective work and planning, do not always approach an interdisciplinary perspective.]), giving up a process that envisions only instrumental aspects, but assuming a formative perspective of the teacher as an agent of themselves and their own professional training. Such a movement should assist in the analysis and critical reflection on the teacher’s knowledge and practices in line with the context in which he/she works (Paez & Pereira, 2017).

According to Oliveira (2006), the collective work of teachers, where each one is a part of the whole, can be defined as that in which individuals make decisions about the vitality of the school, carry out reflections, planning, development of actions and the evaluation of the process carried out. However, collective work is “the pedagogical action itself, the practical implementation of what is discussed, questioned and planned” (Oliveira, 2006, p. 86). In agreement with this, for Freire, Cunha and Pucci (2023), this work consists of fundamental moments of studies, reflections and discussions, which favor professional teacher training, enabling the exchange of knowledge and experiences between them.

When advocating for a training approach that is dialogical, reflective, and grounded in the school reality experienced by teachers, starting from their desires and where the teacher is the fundamental agent of their training, the cultivation of Communities of Practice (CoPs) is considered as a movement capable of providing new knowledge and new educational possibilities. As mentioned by Borges and Cyrino (2020), CoPs can collaborate in the development of teachers’ autonomy, as they are agents of their own training, based on the school context, constituting a culture of collaboration between peers.

The main objective of CoPs is “learning as social participation” (Wenger, 1998, p. 4). The aforementioned author refers to social learning, which does not involve specific events, but rather a process that requires active participation in the practices of a social community, which constitutes its identity in a participatory way and that, through engagement, shared repertoire, enterprise and reification (transformation, whether of knowledge into new knowledge, or knowledge into new practices) such community is identified as a CoP.

Some characteristics are specific to CoPs, such as “respect, trust, challenge, solidarity, valuing the singularities and professional practices of teachers” (Cyrino, 2013, p. 5199). The use of communities of practice enables the openness and flexibility necessary to contemplate the learning process and the constitution of the professional identity of teachers (Garcia & Cyrino, 2019). Participation in these CoPs promotes the negotiation of meanings, which is an essential mechanism for learning and, consequently, the transformation of identities, knowledge and practices inherent to the context in which it is inserted.

When considering teacher training that encompasses aspects of their practice, the demands arising from the school context, and that also provides autonomy, active participation and collaborative work between subjects, CoPs are suggested as a way to assist in this constitution of self-training. The challenge is to establish multi-area communities of practice, given that most of the CoPs established are from specific areas. To better understand the process of establishing multi-area CoPs, we sought to analyze the initial cultivation process of communities of practice, observing the shared repertoires of four school contexts of teachers in the final years of elementary school.

Methodology

The research was qualitative, with an exploratory objective (GIL, 2007) and with procedures aligned with the Case Study with an interventionist profile. This methodology follows the precepts of Gil (2007) and allows greater familiarity with the problem, making it more explicit, in addition to enabling the researcher to, through data collection, carry out interventions that aim to change the reality of the field of study for the better. According to Almeida & Aguiar (2017), the intervention research method applied to the continuing education of teachers allows the construction of knowledge about oneself and one’s professional practice and considers that it is not possible to dissociate reason, emotion, affections and representations of society.

The research subjects were 63 Basic Education teachers, who work at the Elementary Education level in four public schools located in different quadrants of a city on the Western Border of Rio Grande do Sul state. The sample was made by convenience, from one of the schools that had already participated in the researchers’ projects previously, so teachers from the four contexts were invited to participate in a project that aims to cultivate multi-area communities of practice. This study presents the methodological procedures and results of the researchers’ first interactions with the groups of teachers, in addition to an intervention carried out in the four contexts, in order to understand the identity and shared repertoires established in each of these (Figure 1).

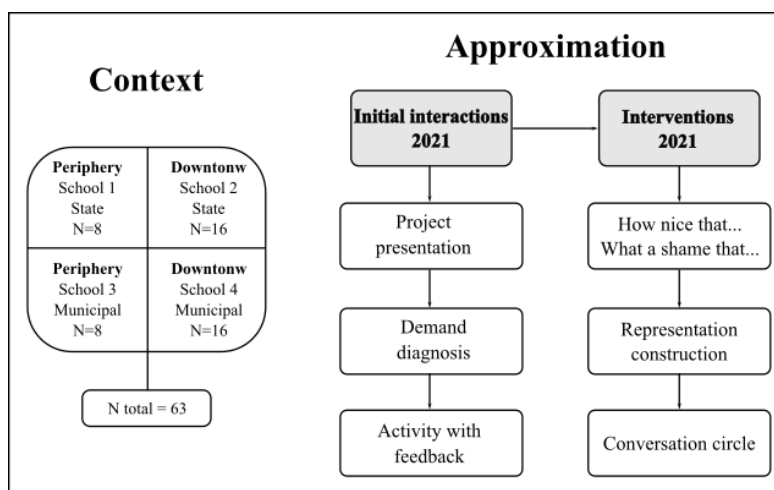


Figure 1. Context and approach of researchers in the four schools.

Source: prepared by the authors using Miro software (miro.com).

The initial interactions (2021) took place remotely, as we were still in a period of social restrictions due to the pandemic. At this first stage, the management team and teachers were contacted to present the project and diagnose urgent demands at that time. The development of interventions (2022) took place in person at each school, with meetings scheduled in advance with the management team. This stage was developed through dynamics, interactive activities and conversation circles. To carry out the dynamic, the activities “How nice that...” and “What a shame that...” were conducted. This dynamic is based on thought routines (Ritchhart, Cuhrch & Morrison, 2011) that aim to make visible and organize what individuals think about a topic, so that they reflect and systematize the information. The question that permeated the development of such activities was: “How do you perceive the current school context experienced?”

Based on the perception of the school context experienced by the teachers, they completed each of the expressions on post-its, which were organized on a poster. Afterwards, a conversation circle was held regarding the teachers’ perception of the school context experienced (records made in the main researcher’s field diary), thus concluding the initial observation of reality.

Data analysis was continuous and allowed us to evaluate and guide discussions in the four groups of teachers, identify participants’ learning through the process of negotiating meanings, and elements that favored this learning (Gravemeijer & Cobb, 2006). To this end, Thematic Analysis was used according to Minayo’s (2015) conception. As stated by the author, there are three operational stages: i. Pre-analysis and decision of the theme to be investigated, the context and unit of registration and form of categorization; ii. Exploration of the Material, through the classification of the units of registration (fragments of the transcribed text) and; iii. Preparation of Syntheses of the units with identification of the core of the meanings (Minayo, 2015).

This research follows ethical precepts and has been approved by the Research Ethics Committee under opinion no. 5,071,698. In accordance with the regulations of resolution 510/16 of the National Health Council (Brazil, 2016), the names of the participants were renamed to ExPx (E refers to the school and P to the teacher in question), in order to preserve the identity of the participants.

Results and discussion

The results are presented in topics, according to the steps described in the methodology. Thus, initially, the initial interactions with the participants and the diagnosis of emerging demands are presented. The second topic discusses the intervention that was related to the observation of reality and demands arising from such contexts. Afterwards, the aspects observed by the researcher throughout the intervention in the four schools are described, such as characteristics and peculiarities that facilitate or hinder the cultivation of Communities of Practice, as well as presenting the identity of each context, in order to translate the shared repertoires constituted in each reality. Identity in CoPs is characterized by learning as experience, dialoguing about the ability to experience the world in a meaningful way (Wenger, 1998; Estevam & Cyrino 2019).

Initial interactions

This stage took place at the end of 2021 during the presentation and invitation for professors to participate in the thesis project. The main purpose of this stage was to bring the researchers closer to schools and teachers. These interactions were used to understand which aspects should be observed when structuring CoPs, as well as to support teacher training in the school context, outlining the main perceptions and challenges encountered in the school environment. Furthermore, they represent the researchers’ first contacts with the research subjects and contexts. The importance of diagnosing the reality that teachers experience is defended, so that it is possible to offer training interventions that are as close as possible to reality and also respond to the main training demands of these teachers in their own context of action.

Regarding the approach to the four contexts investigated, in the last two months of 2021, the proposal was presented in order to obtain the subjects’ consent to participate in this study. Furthermore, at this time, the possibility of universities and research groups contributing with training workshops, lectures, workshops, among others, was reaffirmed. School communities were asked about the main training demand of teachers at that time. In school 3 and school 4, the most pressing issue was the emotional strengthening of teachers, in view of the pandemic; in school 2, teachers would like to learn strategies to develop interdisciplinarity in a more concrete way in the planning and execution of teaching proposals. Finally, school 1 demanded strategies for the active search for students, since the pandemic context was still part of reality.

To meet these demands, professionals who had specific knowledge were invited to contribute to these topics. To contemplate the emotional strengthening of the teacher, a psychologist was invited to hold a conversation remotely with the teachers from both schools. Regarding the demand related to “Interdisciplinarity”, two professors were invited (a basic education professor who studies and develops his dissertation thinking about an interdisciplinary itinerary; and another higher education professor who developed interdisciplinary projects in a school context in his doctoral thesis), as a way of discussing practical possibilities in the context of this school. This moment also aimed to bring the researcher closer to the research environments, showing those being researched that she was not there just to collect data, but as someone committed to school demands.

To assist school 1, which requested ideas on how to carry out an active search for students in a more assertive way, the sharing of experiences that school 2 was carrying out was promoted. School 2 was developing actions that were ensuring closer and more effective contact with students, and so, school 2 was asked to record a video explaining the actions developed. This was sent to teachers at school 1, as a way of sharing experiences and valuing the knowledge and strategies developed at school.

Corroborating the findings, Junges, Ketzer & Oliveira (2018) argue that the use of knowledge between related areas can be considered a transformative and differentiated way to improve the pedagogical processes established in professional training. Through two factors in the teacher’s practice, it would be possible to collaborate to minimize the difficulties encountered in their context, highlighting “the understanding and flexibility of pedagogical models, with the purpose of inserting the individual into society, preparing them for autonomy and citizenship, with conditions to act and modify the environment in which they live” (Junges, Ketzer & Oliveira, 2018, p.90).

In view of this, Soares, Corrêa, Folmer and Copetti (2022) advocate the proposition of dynamic training, open to questions and discussions, which are often enriching in this training process. According to the findings of the study by the aforementioned authors, the participating teachers demanded more study time so that the discussions promoted could be more fruitful. (Soares, Corrêa, Folmer & Copetti, 2022). However, Nóvoa (1992) discusses teacher training that is consolidated through reflective and critical work in relation to the pedagogical practices developed by teachers. In this sense, there is a permanent (re)construction, which involves both the teacher individually and collectively.

Thus, we agree with Soares, Corrêa, Folmer and Copetti (2022) on the importance of dialogue between teachers, so that they can identify emerging situations in common, in order to aggregate, facilitate, improve and value the pedagogical practice constituted by each of those involved. In this sense, it is considered essential to carry out and report this initial interaction for the study, in order to perceive the importance of the environment space for the cultivation of Communities of Practice, CoPs that began their initial organization through the intervention reported below.

Observation on the reality and demands of the contexts

In the Interventions stage, initially, a dynamic was used to instigate recognition of the school environment, later used to discuss the contexts experienced by teachers. The activity consisted of individually describing on post-its the positive perceptions (How nice that...) and negative perceptions (What a shame that...) about the school context that the teachers were experiencing at that moment. In the center of the room, a piece of cardboard was made available, where participants should stick post-its in order to share perceptions. Table 1 details the thematic categories on teachers’ positive perceptions of the four educational environments investigated.

Table 1. Categorization of findings related to the complement “How nice that...”.

School 1 – 8 teachers			
Category	Description	No.	Excerpt
Return to in-person learning	Return to the school environment with students and help them learn, have a pleasant interpersonal relationship among the group of teachers	6	E1P3: “How nice that I can be with my students, helping them on their journey, learning daily and building new knowledge.” E1P7: “How nice that I have dedicated students and colleagues who love what they do and are dedicated.” E1P4: “How nice that we have this group of teachers.”
Professional choice	Satisfaction for having chosen the profession of being a teacher.	2	E1P1: “I’m glad I chose to be a teacher.”
School 2 – 16 teachers			

Category	Description	No.	Excerpt
Post-pandemic training spaces	Training moments for teachers to overcome adverse conditions in the post-pandemic teaching process.	9	E2P15 “How nice that in some way we contribute to quality education.” E2P5: “How nice that we have the opportunity to discuss possible improvements.”
In-person return	Satisfaction at returning to the physical school environment.	8	E2P8: “How nice that we’re back in person and can be with our students again.” E2P14: “How nice that we’re back to having students and teachers interacting together.”
Professional environment	Valuing colleagues, support from management and moments of group learning through dialogue.	7	E2P10 “It’s good that I have support from management” E2P11 “It’s good that we have a good group to work with.”
School 3 – 25 teachers			
Category	Description	No.	Excerpt
Positive feelings	Related to the current moment (being healthy to be able to reflect and rethink pedagogical practice)	20	E3P19 “It’s good that we have hope for better days... We have supportive colleagues and partners.” E3P7 “How nice that by learning to work on my emotions I am also learning to work better with students.”
Return to in-person learning	Satisfaction at returning to the physical school environment.	11	E3P12 “How nice that we’re back to in-person school life!” E3P9 “How nice that we are returning after years of uncertainty and insecurity.”
School 4			
Category	Description	No.	Excerpt
Return to in-person learning	Satisfaction at returning to the physical school environment and interaction between teachers.	10	E4P1 “How nice that we’re back to in-person learning.” E4P4 “It’s good to be back together.”
Positive feelings	Related to the current moment (being healthy to be able to reflect and rethink pedagogical practice).	5	E4P9 “How nice that every day we can start over, rethink and do things differently.” E4P12 “It’s good that I’m alive”
Professional environment	Valuing colleagues, support from management and moments of group learning through dialogue.	3	E4P14 “How nice that school provides moments of reflection.” E4P7 “How nice that we can always count on the support of the school team.”

Source: by the authors.

Table 2 details the categorization of findings regarding negative perceptions about the school context experienced by teachers. It should be noted that in both tables (1 and 2) some responses were allocated to more than one category, which justifies some frequencies not being consistent with the total number of teachers at the school described.

Table 2. Categorization of findings related to the complement “What a shame that...”.

School 1 – 8 teachers			
Category	Description	No.	Excerpt
School commitment	Lack of family involvement and student commitment to their own learning and behavior.	5	E1P8 “What a shame that there is a lack of family commitment, which influences student commitment.” E1P2 “What a shame that many people don’t show interest in learning and lack of behavior.”
Teaching overload	Lack of logistics for all teachers to be together to plan and develop activities together, exhausting workload, no time and resources for training.	3	E1P5: “What a shame that all the teachers aren’t here today to do a whole job.” E1P7: “What a shame that the workload is exhausting and we don’t have enough time for qualification and planning.”
School 2 – 16 teachers			
Category	Description	No.	Excerpt
School commitment	Need for parental support in student learning and behavior, as well as family appreciation of the teacher.	14	E2P6 “What a shame that there is still a lack of family support and students’ interest in improving their learning.” E2P11: “What a shame that the family does not participate and does not value education.”
Educational system	They blame the system for not having the resources and training to better develop its practice (support for working with included students); teachers point to the temporal impossibility of improving their practice; the	11	E2P3 “What a shame that we don’t have support from the system, from the government... and we don’t have enough time to work better.” E2P15 “What a shame that education does not receive the recognition it deserves.”

	system disregards the educational reality, its problems and makes solutions consistent with the school context unfeasible, disregards the new school adaptation of either students or teachers, demanding results without looking inside the school.		
School 3 - 25 teachers			
Category	Description	No.	Excerpt
Educational system	Of these, 5 relate the system as the culprit for not having resources and training to better develop their practice; 4 teachers relate the temporal impossibility to improve their practice; 10 system disregards the educational reality, its problems and makes solutions consistent with the school context unfeasible, disregards the new school adaptation of either students or teachers, demanding results without looking inside the school.	19	E3P18 "t's a shame that education continues to be an empty discourse, it has never been an absolute priority." E3P13 "What a shame that they demand so many tasks, projects, planning, and technological engagement from us, but they don't provide us with the necessary resources and subsidies." E3P23 "What a shame that the education system still makes the real problems of schools invisible"
School commitment	Need for parental support in student learning and behavior, as well as family appreciation of the teacher.	9	E3P4 "What a shame that social interaction is still problematic, needing a new perspective and alternatives." E3P11 "What a shame that even though we are together sometimes we are not enough" E317 "What a shame that they think slowly, they still need help."
School 4 - 14 teachers			
Category	Description	No.	Excerpt
School commitment	Need for parental support in student learning and behavior, as well as family appreciation of the teacher.	8	E4P2 "What a shame that emotional and family problems are being pushed into school." E4P8 "What a shame that the students came back even more individualistic - lacking EMPATHY."
Teacher Emotional Health	They highlight how the pandemic has made the teaching-learning process difficult, which has destabilized the emotional side of teaching.	6	E4P10 "What a shame that we don't have life anymore" E4P5 "It's a shamethat we face difficult days"
Teaching overload	Exhausting workload, no time and resources for qualification.	4	E4P14 "What a shame that there are so many "problem" situations to resolve and we have little time." E4P12 "What a shame that we may not be able to meet the needs of our students due to time constraints."

Source: by the authors.

A parallel was drawn between the realities investigated, bringing their perceptions closer to tables 1 and 2. Regarding the positive aspects, most teachers from the four schools highlighted the importance of returning to in-person classes, mainly as a way of returning to social interaction. The data that allowed us to draw a parallel between realities were collected during the Covid-19 pandemic in the transitional period between emergency remote teaching and in-person teaching, thus serving as a theoretical and practical framework for the moment/time/situation that will support subsequent studies on the influence of this gap in the education sector.

On the other hand, the commitment of students and their families to school was cited by three schools as the main hindering factor in the current educational context. Figure 2 highlights all the connections of relevant aspects between the four schools investigated.

As can be seen in Figure 2, the common positive factor among most schools was related to the return to in-person classes, how important this moment was to strengthen ties again between peers and with students. Although the pandemic has highlighted new pedagogical and technological tools, the return to in-person classes is a moment that emphasizes the exchange of experiences, collaboration, socialization, and interaction among the subjects present in the school space (Silva et al., 2022; Cardoso et al. 2022). The authors' statements corroborate the perception of the teachers participating in the study about how pleasant it is to have united coworkers and support from management in returning to the professional environment in person.

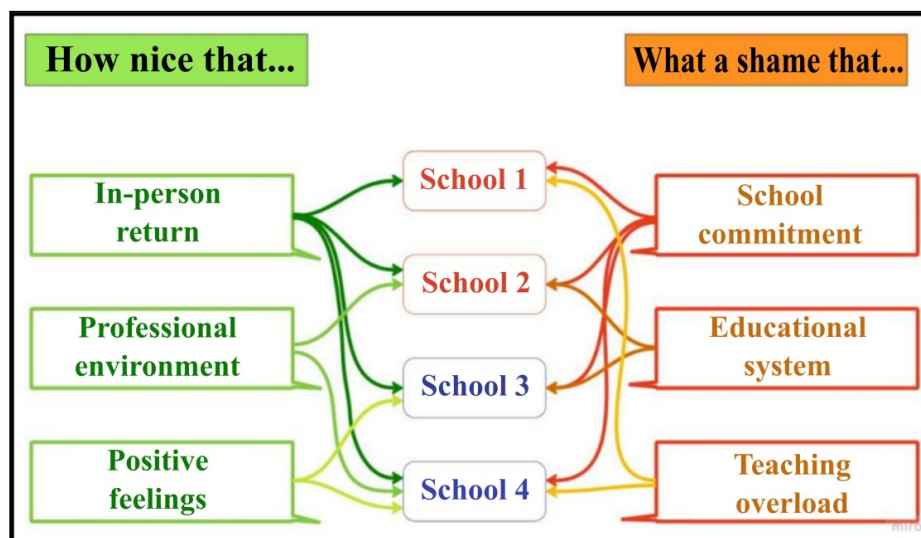


Figure 2. Map with connections between the 4 schools.
Source: prepared by the authors using Miro software (miro.com).

Last but not least, the category related to Positive Feelings, linked to the previous ones, given the return to in-person teaching and a favorable professional environment for teachers' pedagogical work. Positive feelings stand out in the participants' speech, such as: hope, joy, well-being and, as one of the teachers mentioned, "being alive". For Silva, Abreu and Melo (2022), several feelings, permeated by doubts, marked the teachers' return to the school context; however, the feeling of hope was a factor that prevailed over the others in the perspective of a favorable professional environment for the return.

Despite the positive aspects mentioned above, it is important to address negative issues, which are also part of teachers' daily lives. Among the aspects are the school's commitment to family participation in educational issues compared to the pre-pandemic period; and the lack of an educational system that values the teaching profession. According to Bezerra, Veloso and Ribeiro (2021), it is expected that the educational adjustments experienced during the pandemic will serve as a reminder of the resistance of teachers, who, despite all the professional devaluation that society and the government impose on them, are the ones who ultimately maintain the fight for quality public education.

In recent decades, the literature has shown a growing interest in this point indicated by teachers, which has worsened during the pandemic. The partnership between family and school is important for the physical, intellectual, and social development of the individual in different areas of knowledge and has proven to be fundamental during the Covid-19 pandemic (Polonia & Dessem, 2005; Oliveira, Peres & Azevedo, 2021). Family-school interaction, through a dialogical channel, strengthens the school bond, allows for educational co-responsibility, and collaborates in the learning process of students.

Another important point of discussion expressed by teachers refers to the lack of technical support, structure and appreciation of the profession. This issue has been debated for years and the pandemic period has only made the need for physical and personnel investments in teacher training at different levels more visible. For Nóvoa and Alvin (2021), Covid-19 has clearly revealed that several sectors are regulated by the pace of the school, hence the importance of deepening the look at curriculum, methods and especially reinforcing educational policies that value education professionals and encourage collaboration and building bridges, both inside and outside the profession.

Overview of meetings with schools

As the first discussion in this topic, we will refer to the importance of staying in touch with the contexts in which we conduct research, so that, just as these were useful to us for data collection, we as researchers can be useful in assisting in adverse demands, such as what happened during the pandemic. School 3 was the basis for the idealization of the doctoral project, of which this excerpt is a part. Thus, monitoring and providing feedback on the results found was of utmost importance so that it would be possible to have more space to dialogue and collaborate with the environment in question.

Sometimes, as researchers, we are so concerned with finding problems that we forget that the problem is just the tip of the iceberg. There is no point in finding problems in the school environment if we do not

somehow take the initiative to help teachers in some way to minimize or solve the problems. There is a need to increasingly bring theory and practice, the university and the school, and teachers and researchers closer together. One viable possibility in this regard is the cultivation of CoPs, because the science and knowledge produced in our research is only valid if it is useful to those being researched.

Encouraging university-school rapprochement through a dialogic relationship between researchers and teachers in Basic Education is one of the pillars for filling gaps in training and building new teaching practices. Epistemological knowledge must be the basis for supporting more qualified continuing education and facilitating collective work at school (Souza, Souza & Santos, 2018). The demands arising from everyday school life sometimes do not allow teachers to seek new educational possibilities, and it is at this moment that university-school interaction becomes essential to support teaching practice.

On the other hand, it is important that the opening of schools starts with the management. It is essential that the managers and teaching staff first believe in the proposal to which they are being invited (we recognize that sometimes, the management's acceptance is not enough if the teachers are not receptive). This aspect had different results in the four contexts. In school 3 (a school that had already had contact with the researchers), the access and organization of the project have been embraced by the teachers of both shifts. In school 2, it was noticeable that one shift of teachers was quite excited and motivated to participate in the project, while in school 1, some of the teachers received the researchers with apathy and the other part was enthusiastic. And, in school 4, the barrier between teachers and researchers was notable, since the teachers felt uncomfortable and some said they did not want to participate in the project because it would take too much time.

Another point that caught the researchers' attention was the dialogue between teachers and researchers. In one of the four contexts, a teacher (pedagogical team) believed it was important to focus on the proposal rather than talking to the teachers. In this sense, a caveat is in order. CoPs are established and create their learning processes based on dialogue, exchange between peers and negotiation of meanings. In addition, for the community to feel safe to expose its weaknesses, there needs to be space for dialogue. Talking also means discovering new learning.

It is worth noting that cultivating communities of practice in no way presumes to impose study themes or issues outside the context experienced by teachers, but rather to work collaboratively, actively and engagedly so that problems in the school environment are solved by the educational agents themselves. In this sense, "a strong community promotes interactions and relationships based on mutual respect and trust" (Wenger, McDermott & Snyder, 2002, p. 28). In addition, there is voluntary action in sharing ideas, expressing the need for new knowledge, asking disturbing questions and also listening carefully. According to Cyrino (2016), establishing a routine of thoughtful and systematized reflections is a key point for the development of the teacher's identity.

We agree with Cyrino (2016) when she expresses the urgency of teacher training that values their experiences, repertoires and knowledge, assuming the learning inherent in the negotiation of meanings. Such training intentionality is in line with a training process that is more appropriate to the current contexts and demands of basic education teachers, as well as other levels of education.

Finally, it was observed that the school that has maintained contact with the researchers for more than 3 years has shown itself to be a willing school with more aspects that favor the cultivation of a Community of Practice, and has demonstrated some of the main elements of a CoP: active participation, articulated enterprise, mutual engagement and willingness to negotiate meanings. And this also makes it clear how important it is for researchers not to abandon their research fields when they finish them, but rather, to encourage contact and assistance in the praxis of educational agents whenever possible.

Final considerations

This study sought to analyze the initial cultivation process of communities of practice, perceiving the shared repertoires that encompass four school contexts of teachers in the final years of elementary school. Regarding the results, it can be generally answered that the return of in-person activities and a favorable professional environment are important factors for establishing satisfactory pedagogical work. This was observed in the interconnections between the four contexts as a positive aspect (How nice that...) However, there must be commitment from the other parties involved, family, students and educational bodies, factor observed in the interconnections as to what still needs to be improved (What a shame that...)

Several teachers expressed dissatisfaction with the educational system, which not only does not value them, but also does not provide adequate training during difficult times such as the pandemic, and also with regard to the physical structure of schools. It is necessary to understand the teacher in his or her entirety, human and professional, who needs physical resources and financial, emotional and psychological conditions to perform his or her role as an educational agent in the best possible way.

Finally, it is important to maintain strong links with the educational environments in which research is carried out, understanding the school environment beyond the collection of data that only affirms aspects that are already perceptible to teachers, and rather, using this data to propose improvements, as far as possible, in the practice of teachers, or even promoting theoretical subsidies that aim for policies to value teachers.

References

- Almeida, S. F. C. D., & Aguiar, R. M. R. (2017). A pesquisa-intervenção na formação continuada de professores e o dispositivo de análise das práticas profissionais, de orientação psicanalítica: revisitando algumas questões e considerações. *Educar em Revista*, 89-101.
- Bezerra, N. P. X., Veloso, A. P., & Ribeiro, E. (2021). Ressignificando a prática docente: experiências em tempos de pandemia. *Práticas Educativas, Memórias e Oralidades*, 3(2), 323917. <https://doi.org/10.47149/pemo.v2i3.3917>
- Borges, F. A., & Cyrino, M. C. D. C. T. (2020). Encontro formativo de professores e licenciandos em matemática em uma comunidade de prática: alguns aspectos em destaque. *Revista Educação e Linguagens*, 9(16), 435-461. <https://doi.org/10.33871/22386084.2020.9.16.435-461>
- Cardoso, A. G. R., Silva, N. C., Martins, A. A. P., Montenegro, A. V., Pereira, L. C. S., & Santos, H. L. G. (2022). O retorno de atividades acadêmicas presenciais no ensino médio no pós-pandemia na visão de discentes. *Ciências & Ideias*, 13(3), 81-92. <https://doi.org/10.22407/2176-1477/2022.v13i3.2207>
- Cyrino, M. C. C. T. (2013). *Formação de professores que ensinam matemática em comunidades de prática* [Apresentação de trabalho]. Anais do 7º Congresso Iberoamericano de Educación Matemática da Sociedade Brasileira de Educação Matemática, Montevideo, UY.
- Cyrino, M. C. C. T. (2016). Desenvolvimento da identidade profissional de professores de matemática em comunidades de prática: reificações do ensino do raciocínio proporcional. *Bolema: Boletim de Educação Matemática*, 30(1), 165-187.
- Estevam, E. J. G., & Cyrino, M. C. D. C. T. (2019). Condicionantes de aprendizagens de Professores que Ensinam Matemática em contextos de Comunidades de Prática. *Alexandria: Revista de Educação em Ciência e Tecnologia*, 12(1), 227-253. <https://doi.org/10.5007/1982-5153.2019v12n1p227>
- Freire, F., Cunha, R. C. O. B., & Pucci, R. H. P. (2023). Interlocuções de professores e organização do trabalho pedagógico no contexto do trabalho coletivo. *Acta Scientiarum. Education*, 45(1), e54746. <https://doi.org/10.4025/actascieduc.v45i1.54746>
- Garcia, T. M. R., & Cyrino, M. C. D. C. T. (2019). Identidade profissional de professores que ensinam matemática em uma Comunidade de Prática. *Revista Paranaense de Educação Matemática*, 8(15), 33-61. <https://doi.org/10.33871/22385800.2019.8.15.33-61>
- Gil, A. C. (2007). *Como elaborar projetos de pesquisa*. Atlas.
- Gravemeijer, K. P. E., & Cobb, P. (2006). Design research from the learning design perspective. In J. J. H. Van Den Akker, K. P. E. Gravemeijer, S. Mckenney, & N. Nieveen (Eds.), *Educational design research* (pp. 17-51). Routledge.
- Imbernón, F. F. D. (2001). *Formação docente e profissional: formar-se para a mudança e a incerteza*. Cortez.
- Junges, F. C., Ketzer, C. M., & Oliveira, V. M. A. (2018). Formação continuada de professores: saberes ressignificados e práticas docentes transformadas. *Educação & Formação*, 3(9), 88-101. <https://doi.org/10.25053/redufor.v3i9.858>
- Minayo, M. C. S. (2015). *O desafio do conhecimento: pesquisa qualitativa*. Hucitec.
- Nóvoa, A. (2002). *Formação de professores e trabalho pedagógico*. Educa.
- Nóvoa, A., & Alvin, Y. C. (2021). Os professores depois da pandemia. *Educação & Sociedade*, 42(1), e249236. <https://doi.org/10.1590/ES.249236>

- Oliveira, L. H. R. (2006). *Trabalho coletivo em educação: os desafios para a construção de uma experiência educacional fundamentada na cooperação em uma escola municipal de São Paulo* [Dissertação de Mestrado, Universidade de São Paulo].
- Oliveira, C. P., Peres, J. O., & Azevedo, G. X (2021). Parceria entre escola e família no desenvolvimento do aluno durante a pandemia de COVID-19. *Revista de Estudo em Educação*, 7(1), 70-86.
- Paez, F. M., & Pereira, A. S. (2017). Formação continuada: a visão dos professores de um curso de graduação tecnológica. *Acta Scientiarum. Education*, 1(39), 567-575. <https://doi.org/10.4025/actascieduc.v39i0.29483>
- Polonia, A. C., & Dessen, M. A. (2005). Em busca de uma compreensão das relações entre família e escola: relações família-escola. *Psicologia Escolar e Educacional*, 9(2), 303-312. <https://doi.org/10.1590/S1413-85572005000200012>
- Resolução nº 510, de 07 de abril de 2016. (2016). Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais. Brasília, DF. <https://www.gov.br/conselho-nacional-de-saude/pt-br/aceso-a-informacao/atos-normativos/resolucoes/2016/resolucao-no-510.pdf/view>
- Ritchhart, R., Church, M., & Morrison, K. (2011). *Making thinking visible: how to promote engagement, understanding and independence for all learners*. Jossay-Bass.
- Silva, A. F.; Abreu, C. B., & Mello, L. S. (2022a). Ensino remoto emergencial: percepções de professores da educação infantil em Palmas (TO). *Revista Docência e Ciberultura*, 6(5), 31-49. <https://doi.org/10.12957/redoc.2022.66188>
- Silva, C. A. P., Sá, I. R., Domingues, M. G., & Aparício, A. S. M. (2022b). Transição do ensino presencial para o ensino remoto em época de pandemia. *Revista de Ensino, Educação e Ciências Humanas*, 23(1), 69-77. <https://doi.org/10.17921/2447-8733.2022v23n1p69-77>
- Soares, R. G., Corrêa, S. L. P., Folmer, V., & Copetti, J. (2022). A problematização como ferramenta de formação de professores sobre metodologias ativas. *Acta Scientiarum. Education*, 44(1), e52168. <https://doi.org/10.4025/actascieduc.v44i1.52168>
- Souza, W. C., Souza, M. J., & Santos, D. F. A. (2018). Pensar a prática na perspectiva da socialização profissional: considerações da aproximação entre escola e universidade. *Revista Humanidades e Inovação* 5(8), 136-142.
- Wenger, E. (1998). *Communities of practice: learning, meaning and identity*. Cambridge University Press.
- Wenger, E., McDermontt, R., & Snyder, W. M. (2002). *Cultivating communities of practice*. Harvard Business School Press.

INFORMATION ABOUT THE AUTHORS

Renata Godinho Soares: Bachelor's degree in Education. Specialist in Physical Activity and Health, Master's and PhD student in Science Education from the Postgraduate Program in Science Education, Federal University of Pampa - Campus Uruguaiana.

ORCID: <http://orcid.org/0000-0002-2386-2020>

E-mail: renatasoares1807@gmail.com

Cátia Silene Carrazoni Lopes Viçosa: PhD in Science Education - Unipampa; Master in Science Education - UFSM; Specialist in Special and Inclusive Education - FAEL; Graduated in Natural Sciences. Degree, Unipampa/Campus Uruguaiana.

ORCID: <http://orcid.org/0000-0002-6909-0839>

E-mail: catialopes00@gmail.com

Cadidja Coutinho: Bachelor's degree in Biological Sciences, Master's and PhD in Science Education. Federal University of Santa Maria (UFSM). Assistant Professor in the Department of Teaching Methodology, Federal University of Santa Maria (MEN-CE/UFSM) and in the PPG Science Education (PPgECI - UFSM).

ORCID: <http://orcid.org/0000-0002-5182-7775>

E-mail: cadidja.coutinho@ufsm.br

Raquel Ruppenthal: Graduated in Biological Sciences, PhD in Science Education/UFSM. Adjunct Professor at the Federal University of Pampa, professor of the Natural Sciences Degree and permanent professor of the Postgraduate Program in Science Education/UNIPAMPA.

ORCID: <https://orcid.org/0000-0003-1301-4260>

E-mail: raquelruppenthal@unipampa.edu.br

NOTE:

Renata Godinho Soares e Raquel Ruppenthal conceived the idea presented and based it on studies. Renata Godinho Soares and Cátia Silene Carrazoni Lopes Viçosa organized the methodology for the context, created the instruments, carried out the activities, collected, analyzed and discussed the data. Cadidja Coutinho and Raquel Ruppenthal analyzed the data presented and submitted them for review. All authors actively participated in the discussion of the results, reviewed and approved the final version of the article.

Associate editor in charge:

Maria Terezinha Bellanda Galuch

<https://orcid.org/0000-0001-5154-9819>

mtbgaluch@uem.br

Evaluation rounds:

R1: nine invitations; two opinions received

Standardization reviewer:

Vanêssa Vianna Doveinis

Data availability:

The data from the research are included in the body of the article in its methodology and results.