

TEACHING AND RESEARCH IN TEACHER TRAINING: an in loco proposal

INTEGRANDO ENSINO E PESQUISA NA FORMAÇÃO DOCENTE: uma proposta in loco

INTEGRANDO LA ENSEÑANZA Y INVESTIGACIÓN EN LA FORMACIÓN DOCENTE: una propuesta in loco

Vanessa Candito¹

Karla Mendonça Menezes²



Carolina Braz Carlan Rodrigues³



Felix Alexandre Antunes Soares⁴

Abstract

The challenges faced by teachers in the current scenario are significant, impacting pedagogical practice in a meaningful way. This creates a need to find alternatives to improve teaching that is aligned with contemporary social reality. Promoting research in schools plays a fundamental role in knowledge development, the promotion of learning, and the enhancement of students' critical skills, bringing significant benefits to students, educators, and the educational system as a whole. This study analyzed the perceptions and integration of school research into the pedagogical practice of teachers in a state public school, within a formative process supported by the methodological framework of action research. Those involved highlighted research as fundamental for the reconstruction of knowledge, integrated into teaching practice, and its potential in developing educational practices, allowing for the identification of needs and the development of action plans. It promoted teacher

How to cite this article:

CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; SOARES, Felix Alexandre Antunes. Teaching and research in teacher training: an in loco 8454, 2025. DOI: proposal. Revista Pedagógica, Chapecó, 27, http://dx.doi.org/10.22196/rp.v22i0.8454



¹ PhD candidate in Science Education at the Federal University of Rio Grande do Sul. Master's degree in Science Education from the Federal University of Rio Grande do Sul. Bachelor's degree in Biological Sciences. Specialist in Environmental Education and Specialist in Biodiversity Conservation. ORCID: https://orcid.org/0000-0003-4663-9590. Email: vanecandito@gmail.com

² Post-Doctorate in Health Promotion, University of Santa Cruz do Sul. PhD in Science Education, Federal University of Santa Maria. Master's degree in Physical Education. Specialist in Physical Activity and Health. Bachelor's degree in Physical Education. ORCID: https://orcid.org/0000-0002-7482-0648. Email: karlam.ef@gmail.com

³ Doctorate in Science Education from the Federal University of Santa Maria. Bachelor's degree in Physical Education. Specialist in Training, Bodybuilding and Physical Activity. Master's degree in Science Education. ORCID: https://orcid.org/0000-0001-7115-0987. Email: carolinabcarlan@gmail.com ⁴ Doctor of Biological Sciences from the Federal University of Santa Maria. Professor at the Federal University of Santa Maria. ORCID: https://orcid.org/0000-0002-6453-7902. Email: felix@ufsm.br



improvement, empowering them to engage in teaching practices aligned with the needs of the school context and encouraging critical reflection on their pedagogical approaches.

Keywords: Teacher Training. Action Research. Pedagogical Practice.

Resumo

Grandes são os desafios enfrentados pelos professores no cenário atual, que impactam de maneira significativa a prática pedagógica. E assim, surge a necessidade de encontrar alternativas para qualificar o ensino que estejam alinhadas com a realidade social contemporânea. A promoção da pesquisa na escola desempenha um papel fundamental no desenvolvimento do conhecimento, na promoção da aprendizagem e no aprimoramento das habilidades críticas dos estudantes, que traz benefícios significativos para educandos, educadores e o sistema educacional como um todo. Esse estudo analisou as percepções e a integração da pesquisa escolar na prática pedagógica de professores de uma escola pública estadual, sobre um processo formativo, amparado no aporte metodológico da pesquisa-ação. Os envolvidos destacam a pesquisa como fundamental para a reconstrução de conhecimento, integrada à prática docente, e o potencial no desenvolvimento da prática educativa, permitindo a identificação de demandas e o desenvolvimento de planos de ação. Promoveu o aprimoramento docente, capacitando-os para práticas de ensino alinhadas às necessidades do contexto escolar e incentivando a reflexão crítica sobre suas abordagens pedagógicas.

Palavras-chave: Formação Docente. Pesquisa-Ação. Prática Pedagógica.

Resumen

Existen grandes desafíos que enfrentan los docentes en el escenario actual, que impactan significativamente la práctica pedagógica. Surge así la necesidad de encontrar alternativas para mejorar la enseñanza que estén alineadas con la realidad social contemporánea. El fomento de la investigación en la escuela juega un papel crucial en el desarrollo del conocimiento, la promoción del aprendizaje y la mejora de las habilidades críticas de los estudiantes, lo que aporta importantes beneficios a los estudiantes, a los educadores y al sistema educativo en su conjunto. Este estudio analizó las percepciones e integración de la investigación escolar en la práctica pedagógica de docentes de una escuela pública estatal, en relación con un proceso de formación, apoyado en el aporte metodológico de la investigación-acción. Los involucrados resaltan la investigación como fundamental para la reconstrucción del conocimiento, integrada a la práctica docente, y el potencial en el desarrollo de la práctica educativa, permitiendo identificar demandas y desarrollar planes de acción. Promovió la superación docente, capacitándolos en prácticas docentes alineadas con las necesidades del contexto escolar y fomentando la reflexión crítica sobre sus enfoques pedagógicos.

Palabras clave: Formación de Profesores. Investigación para la Acción. Práctica Pedagógica.

Introduction

It must occur within the school itself, through participation and management of school work, as this gives educators the opportunity to learn from each other. The





author also emphasizes that sharing concerns with colleagues means collectively assuming responsibility for the school and investing in one's professional development. For Placco (2010), the training that takes place in the school environment is identified as in-service training, giving the teacher the central role in shaping their own training. In this context, the teacher, intentionally and consciously, builds their autonomy and professional authorship, actively engaging in the actions of being, thinking, and practicing teaching. And for this, continuing education is indispensable for the professional valorization of teachers (Veiga; Santos, 2022).

It is important to highlight the need for teachers to understand the interaction between educational theory and teaching practice, recognizing the relevance of their social and political role. This understanding allows for the reassessment of practice with the aim of promoting a more effective approach in student training, and within this perspective, action research emerges as a proposal to integrate research and pedagogical practice, as cited by Franco (2015).

Among the possibilities for articulating teaching and research in teacher training, André (2008) recommends incorporating research in both initial and continuing training, highlighting the importance of adapting it to available resources and conditions. The author reiterates that the focus is the developing of investigative skills and attitudes in teachers, using research as a mediating tool for reflection on daily school life. Corroborating with Franco (2005), who emphasizes that action research is fundamentally a pedagogical approach. From this premise, it is conceived as an educational practice that seeks to scientifically follow principles aimed at continuous training and the emancipation of all those involved in educational practice.

Methodological Procedures

This study is part of a doctoral thesis and takes place within a collaborative context, progressively built between researchers from a federal university and a state public school in Rio Grande do Sul. For over ten years, this partnership has focused on constantly improving teacher performance, addressing the school's needs, planning collective pedagogical strategies, and offering continuing education.



This study adopts the methodological principles of action research proposed by Thiollent (2011), and follows a design suggested by Menezes *et al* (2020), which examines the relationship between teacher training and research, aiming to explore the possibilities and challenges faced in educational practices, emphasizing the importance of teachers reflecting on their actions in a systematic and cyclical manner, encompassing the moments of evaluation, planning, and action (training).

The methodological approach proposed by Thiollent (2011) presents a basic itinerary for conducting action research, which involves evaluation-action-reflection. However, due to the diversity of contexts, this guide is flexible and should be adaptable as its application depends on the specific circumstances of each situation experienced. Thus, Figure 1 represents the cyclical structure of this study, in which constant reflection is maintained throughout all phases.

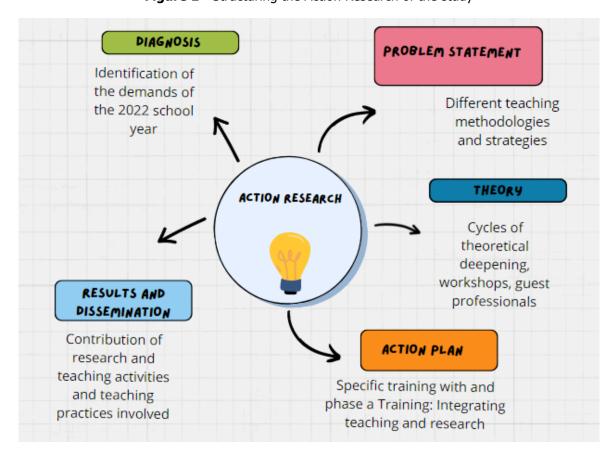


Figure 1 - Structuring the Action Research of the study

Source: Prepared by the authors, based on Thiollent (2011).



The initial phase of action research aims to establish a diagnosis of the situation, that is, the context, the people involved, the needs and expectations (Thiollent, 2011). Therefore, the demands, needs, and difficulties of teachers, management, and the school for the 2022 school year were identified.

In the next phase, the focus was on identifying the problems, once the issues had been identified, determining which ones would become the focus of the educational action plan. Thus, starting with a moment of dialogue between the management team, teachers and researchers, the guiding theme of the subsequent actions was attributed to teaching methodologies and strategies.

From this identification, the outline of the action plan began, whose guiding document was the Continuing Education Project School [suppressed]: for an active and connected school, 2022.

It should be noted that the Continuing Education Project School [suppressed]: for an active and connected school, 2022; It was created by the school administration as a guiding document for the school's teaching staff. It aimed to ensure the continuing education of teachers, which involved theory and practice, articulating knowledge and considering the real needs identified and experienced in the years 2020/2021. The choice of themes was made by the pedagogical coordination, as it was deemed necessary to reflect on and rework ideas, especially regarding to Active Methodologies. Dynamics, techniques, and pedagogical materials were used that focus on issues relevant to pedagogical practice, promoting communication among participants, especially so that they seek to improve their pedagogical practices to perform their functions and offer a quality public education, inside and outside the classroom.

In this phase, as proposed by Thiollent (2011), a cycle of theoretical deepening was articulated with the aim of developing ideas, hypotheses, or guidelines to guide the research and interpretations.

Among the actions planned in the aforementioned project, eight workshops were scheduled, which were held monthly, beginning in March 2022 and ending in November 2022. The workshops were developed at the school headquarters, lasting approximately three hours each, following the school schedule. Among those





involved in this process were 40 teachers⁵ (who were part of the school's organizational staff, linked to Elementary School I and II and High School), eight managers (divided among the three shifts), and five researchers.

After the implementation of the planned actions, this text aims to analyze the integration of school research into the pedagogical practice of teachers, based on a formative process. To this end, following the phases of action research, the analysis, deliberation, and evaluation of the results were carried out. For this purpose, as a source of data, the teachers' reports on the methodological contribution of the research in the school environment were used, as well as the pedagogical activities they developed with the students involving the perspective of educating through research.

For the recording and analysis of the processes involved, teachers recorded their perceptions, guided by structured questions in an online form. When appropriate, the guiding questions will be described throughout this text, accompanied by the results of the content analysis and relevant discussions. For the organization and interpretation of the results, the Content Analysis method (Bardin, 2016) was used, involving the stages of pre-analysis, exploration of the material, definition of categories, inferences, and interpretations. To this end, the analysis was organized into three main stages, according to Bardin (2016): a) Pre-analysis: selection and delimitation of the study; application of selection rules and delineation of the object; b) exploration of the material: which consists of administering the techniques to the corpus; c) treatment of results and interpretations: which can be developed through statistical operations (frequency of use of terms), syntheses, and selection of results (inferences; interpretations, guidelines for a new analysis) and/or by using the results for theoretical or pragmatic purposes.

The results were recorded in a spreadsheet editor and will be presented through excerpts from the responses.

This study complies with ethical principles regarding the participation of teachers and was approved by the Research Ethics Committee, where, all those

⁵ Source: https://qedu.org.br/escola (2022 School Census, INEP). It is important to note that many teachers worked in more than one school, and therefore were not always able to attend all the training sessions offered by the institution.





involved signed the Informed Consent Form (ICF), as per CAAE 13846619.2.0000.5346. And to protect the identification of the participants they will be represented by alphanumeric characters, when necessary.

Results and discussion

Teacher Training: Integrating Teaching and Research in Teacher Education

According to Thiollent (2011, p. 80), "action corresponds to what needs to be done (or transformed) to achieve the solution of a given problem." The author also indicates that, depending on the nature of the problem, the action may employ different approaches. Within the scope of this study, a formative approach was adopted, structured through communication and interaction among the participants. This conception is in line with Franco's perspective (2016, p. 513), who suggests that, in the educational context, action research has a formative character because, "it is a participatory, collaborative, pedagogical work between researchers and teachers, from the perspective of critical-reflective training, which, by assumption, results in the improvement of teaching."

Inserted within this perspective, the training entitled Integrating Teaching and Research in Teacher Training aimed to promote a space for study, shared learning, and the construction of partnerships among educators for the reconstruction of knowledge. In addition to providing teachers with the opportunity to reflect on their practice, encouraging the reevaluation of their questions, this approach also involves the student, promoting their own development. Furthermore, it sought to stimulate the analysis of the role of research in the classroom and to guide pedagogical practices from the perspective of Education through Research.

The training was based on the school's Political Pedagogical Project (PPP), the principles of the author Pedro Demo, who addresses Education through Research, and the school's continuing education project, which provides a schedule of training for the 2022 school year, as well as other sources of information. Teachers also received printed textual material as support material - in the form of a booklet, which





included information that could be incorporated into their pedagogical practices. The intention behind this resource was, above all, to optimize and improve lesson plans,

foster reflections, evaluations, and enhance teaching actions. Just as knowing the results of a research project can generate reactions and contribute to the dynamics of awareness-raising and, eventually suggesting the beginning of another cycle of

action and investigation (Thiollent, 2011).

The booklet used was carefully prepared to provide a practical and comprehensive guide for the participants. Its content addressed the principles of school research, approaches to research, teaching strategies, and examples of practical activities. Thus, as a flexible material, it could be adapted to the needs and characteristics of each curricular and teaching component, customizing it according to teaching methods. In this way, as Thiollent (2011) points out, action research allows the production of teaching material, generated by the participants, to be distributed on a larger scale.

A proposal similar to this study was developed by Caetano and Manganeli (2020), who investigated the relationship between research as a pedagogical principle and the teaching and learning processes in Professional and Technological Education. According to the authors, school research, aimed at building student knowledge, focusing on questioning, developing arguments, and defending those arguments, helped shape a research-oriented, critical, curious, and socially engaged student.

Teachers' perception of research in the school context.

Within the scope of this study, it is worth highlighting that the entire teaching staff was invited to participate in the training; however, a total of 13 teachers participated in the training entitled "Integrating Teaching and Research in Teacher Training," held on the school premises. After participating in the workshop, the teachers actively contributed to the research process by answering a structured online questionnaire, providing their fundamental perceptions about the experience. This active participation of the teaching community reflects the relevance of teacher involvement in the integration between teaching and research, providing a solid basis CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; SOARES, Felix Alexandre Antunes.



for the analyses and conclusions of this study.

The guiding question proposed by the researchers was: What is your perception of the use of research as a means of constructing new knowledge and of the teacher's role as a researcher of/in their own practice?

Based on the participants' responses, four main categories were identified: Improvement of Student Learning; Dialogue and Knowledge Production; Valuing Research as a Teaching Strategy; and Student as Protagonist. Below, we present the identified categories, along with excerpts from the teachers' responses.

Improving Student Learning: This category discusses the impact of research on promoting the improvement of the student learning process. As can be observed in the following statements: "When using research in the classroom, students dedicate themselves and learn more, thus learning becomes meaningful" (P4). Teacher P6 states that: "When the student seeks to improve their learning through research, they appropriate knowledge."

Dialogue and Knowledge Production: This category addresses reflections on how research favors dialogue and knowledge production within the educational context. The following excerpts portray this category: "It is fundamental, because without research we do not have the resources for dialogue, debate, or exchange of information, and knowledge production" (P5); "It opens up infinite possibilities in teaching" (P1).

Valuing Research as a Teaching Strategy: This category explores teachers' perceptions of the importance of research as a teaching strategy and how it is valued in their practices. Teacher P3 reports that: "I find this teaching strategy, through research, very interesting, so that teachers can work with students."

Student as Protagonist: In this category, we examine how teachers perceive the active role of students in research and in the learning process. As highlighted in the response of (P1): "A creative tool that allows the student to be the protagonist of their learning."

Thus, when we analyze the categories that emerged from the teachers' reports, we find a positive perception and appreciation of research as a valuable tool for both student learning and the development of teaching practice. Research by





teachers is seen as a way to make learning more meaningful, promote dialogue and debate, and allow students to play an active role in their own learning. In addition, research was considered an important tool for teachers to improve their teaching approaches and promote the development of new knowledge. These findings are consistent with Demo (2009), who argues that teacher knowledge is a continuous process in the pursuit of constructing and reconstructing new knowledge, as teachers constantly need to be encouraged to reflect on their practice and seek to improve their skills.

The second question in the questionnaire addressed the teachers was the following: Continuing Education: Integrating Teaching and Research in Teacher Training, which promoted a space for study, shared learning, and building partnerships among educators for the reconstruction of knowledge, presenting the role of research in the classroom. After the training, how do you intend to improve your teaching practice?

Based on the teachers' responses, it was possible to classify the intentions to improve teaching practice into three main categories: Promoting Research with Students; Implementing Research Practices; and Innovation in Pedagogical Activities. It can be seen that teachers intend to improve their teaching practices by promoting research among students to improve teaching and learning, applying the research steps learned and involving methodologies such as the flipped classroom. In addition, they seek to innovate pedagogical approaches, making teaching more attractive and effective. As highlighted in the teachers' responses:

Promoting Research with Students: the following excerpts illustrate the category: "Promoting more research with students for better teaching-learning outcomes" (P3); "Trying to use more research in class" (P4).

Implementing Research Practices: the teachers' reports can be observed below: "Putting into practice the suggestions and step-by-step instructions for conducting research" (P6); "I intend to involve students in classroom research and engaging them in presentation activities, working with the flipped classroom model" (P2).

Innovation in Pedagogical Activities: the following excerpts illustrate the category: "Seeking to innovate pedagogical activities through research" (P1); CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; SOARES, Felix Alexandre Antunes.



"Seeking new knowledge to facilitate the process, making it more attractive and enjoyable" (P5). Therefore, the teachers' responses indicated a significant focus on incorporating research as an integral part of teaching practice, both in terms of promoting research by students and implementing research practices in the classroom. In addition, teachers expressed a desire for innovation and the constant improvement of their pedagogical approaches to make teaching more engaging and effective.

Corroborating with Leal and Araujo (2024), who state that the authors cite research as an educational principle in the exercise of teaching, this proposes contributions for teachers, since research in teaching provides a re-signification of pedagogical practices, encouraging a dynamic and contextualized learning environment, in which research serves as a bridge between theory and practice. It also brings benefits to students, as the practice of research in class promotes interactive and motivating experiences, stimulating interest and understanding of the concepts studied in a practical and engaging way, essential for meaningful learning.

Continuing, the third question addressed: Did the Integrating Teaching and Research in Teacher Training contribute suggestions for your pedagogical practice? In what way? The answers allowed the identification of four categories that reflect the ways in which the training provided benefits to the participants. The categories and fragments of the teachers' reports are presented below.

Expansion of Knowledge and Horizons: this category reflects the benefits for development with regard to learning: "It's always good to learn new things" (P1); "It opened horizons and ideas for me to innovate in the classroom" (P3).

Introduction of New Tools and Resources: this category refers to the importance of working with tools and resources for improving the educational process: "It contributed by providing suggestions and new ideas for applications to use with students in the classroom" (P5); "With new ways of doing research with students in the classroom" (P10). Promoting Student Interest in Research: This category refers to the importance of stimulating student interest in research, which can bring significant benefits to learning and skill development among students: "Reaffirming that teaching through research contributes to learning with more





ISSN 1984-1566 (on-line)

interest on the part of the student" (P7).

Adapting to the School Reality: This category refers to adapting to the school's conditions and the reality in which students are immersed: "Showing possibilities for developing research in the classroom, considering the reality of our school" (P8).

Facilitating Teacher-Student Communication: This category portrays the improvement in communication between teachers and students: "It helped with ideas to facilitate mediation between teachers and students" (P2).

The emerging categories from the reports show that research plays a fundamental role in expanding knowledge, both for the student and in the teacher's practice. When integrated with innovative teaching strategies, it not only attracts students' attention to new knowledge but also facilitates interaction between the teacher and the student, making learning more meaningful. And this effect is particularly noticeable when the teacher manages to relate knowledge to the context and reality of the students.

From this perspective, we turn to a study developed by Menezes et al (2020) that analyzed how action research was integrated into the pedagogical practices of teachers from a public school in Rio Grande do Sul, in partnership with a university. The processes showed that the research allowed for the collective construction of actions, characterized above all by the participation and dialogical posture among those involved in the investigative process, and contributed to the identification of the needs and interests of the school community. Action research promoted space and time for teacher training within the school itself. The aforementioned authors highlight the potential of collaborative work between school and university, with the intentional use of investigative practice in the collective construction of knowledge as the guiding principle.

Finally, in the analysis of educators' narratives about school research, a clear convergence with the Educational Principle presented by Demo (2011) is observed, since research is revealed as an intrinsic component of the educational process. The educational principle, regarding students, emphasizes the importance of fostering curiosity and questioning, providing a more critical participation in the learning process. In other words, by stimulating research, students are empowered to become protagonists of their own educational journey, promoting the development of CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan;



autonomy and confidence.

Regarding, the fourth question for teachers: Describe a situation in which you applied research in your classes or management activities? How did it occur or what procedures did you use?

Figure 2 schematically illustrates the teachers' pedagogical practices, articulated with the curricular components, and how research can be integrated into teaching to enrich students' experiences and contribute to the continuous improvement of learning.

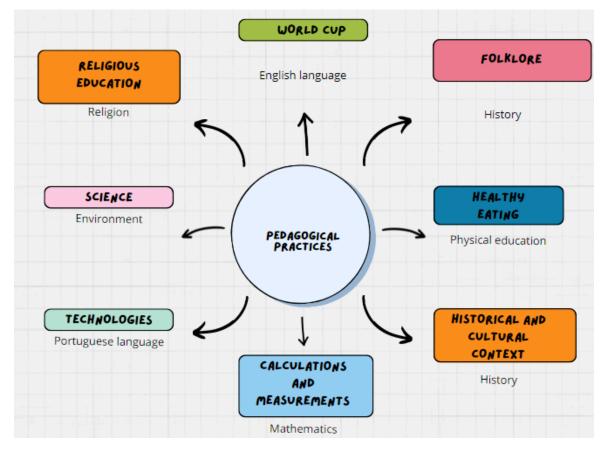


Figure 2 - Delineation of practices according to themes and curricular components

Source: Prepared by the authors (2025)

In the context of the History teacher's pedagogical practices, the research proposal was developed to explore Brazilian folklore and also in relation to the Vargas Era. According to P8: "We researched folklore characters. For the 9th grade, students conducted research in the context of the Vargas Era in Santa Maria, with the





following themes (Education, Sports, Culture, the Radio Era, Fashion). After researching, the students presented their work at the school's Exhibition."

Regarding the context of the Mathematics curriculum component, the teacher adopted an innovative pedagogical practice in which students were encouraged to research and explore curiosities related to units of measurement. Teacher P9 reported that: "I had them research curiosities about measurements and what sources they used."

For the teaching of Portuguese, the development of students' linguistic and communication skills is fundamental. In this context, the teacher sought to integrate the curriculum component with some games. P5 reported: "I applied the content in games using the computer lab, written productions, and readings done by the students."

Physical Education offers an ideal environment to address healthy eating, since exercise and nutrition are intrinsically linked. Thus, the teacher explored the theme of healthy eating in her pedagogical practices. According to teacher P4: "We researched and worked on healthy eating in physical education class."

The pedagogical practice of the Religious Education teacher plays an essential role in teaching, as it promotes understanding, respect, and awareness of the diverse religious beliefs of society. According to P3:

The 6th grade students researched the Holy Scriptures, and afterwards we discussed their findings. The 9th grade students researched the different ways religions view the afterlife. The 8th grade students researched religious leaders, and after all the research, we displayed these projects at the school fair.

Regarding the teaching practice of the English Language teacher, the aim was to promote the learning of the foreign language through cultural and social knowledge related to the language. According to the report from teacher P7:

First-year high school students researched vocabulary related to the World Cup (games, etc.) in English. Second and third-year students researched interesting facts, culture, economy, government systems, tourist attractions, etc., of the countries participating in the World Cup whose official language is English. The students also presented their research at the school's exhibition.





Within the Science curriculum component, the teacher developed a teaching project focused on sustainability and recycling, aiming to engage students in practical and constructive activities, culminating in the recycling and construction of pouffes with the active participation of the students. Teacher P2 reported that: "[...] we worked on recycling and building pouffes, in which students researched and debated the importance of reusing certain materials and the impact of this attitude on the environment. We used internet research, debated, wrote about the subject and built the pouffes."

It is also worth highlighting that several productions developed within the classroom, in collaboration between educators and students, resulted in the presentation of the works during the Pedagogical Exhibition: Science and Knowledge, as outlined in the Political-Pedagogical Project (PPP), held annually on the institution's premises. The aim of the Exhibition is to showcase the work done with classroom research as well as research conducted specifically for the event, since, according to the school's PPP (Political-Pedagogical Project), research is integrated into pedagogical activities in order to enable the construction of new knowledge and the formation of research-oriented, critical and reflective subjects in the daily life of the school, providing an adequate appropriation of reality (PPP, 2019).

The study by Leal and Araujo (2024) analyzes a teaching experience that aligns teaching with research, promoting meaningful and engaging learning for students. The results point to a redefinition of teaching practice, connecting teaching and research in student training by encouraging a dynamic and contextualized learning environment, in which research enabled the unity of theory and practice, promoting interactive and motivating experiences that stimulated students' interest and understanding of the concepts studied in a practical and engaging way, essential for meaningful learning.

It is worth highlighting, then, that the research carried out by the pedagogical practices cited in our study was fundamental to exploring new forms of teaching and strategies. In this way, the research developed and presented provided students with creative and engaging participation, contributing to the development of





communicative skills and student learning. In line with the thinking of Gallon et al. (2019), that research carried out in the classroom involves stages such as questioning and communication, and in science fairs, students validate their research results, their communicative skills, and contribute to the production of knowledge and participation in academic literacy practices.

According to Moura and Lima (2021), enabling investigative activity means linking teaching practice to a genuine concern for the student's holistic development, giving students space through their discoveries and considering a teaching perspective based on the student as the subject of their learning and the teacher as a formative agent who propels and uses essential tools that promote the student's investigative formative development, in which it is possible to expand the possibilities for the formation and development of a more engaged subject capable of seeking meaning in the world.

However, to foster the diversification of teaching practices based on school research, it is essential that educators make fundamental adjustments to their performance, and thus, it becomes imperative that teachers actively participate in continuing education programs to improve their pedagogical practices. Since the articulation and interconnection of research and continuing teacher education provide valuable perspectives for improving teaching practices, and training helps educators apply these findings in their classrooms. This corroborates Freire (1996), who emphasizes the relevance of continuing teacher education, enabling teachers to be in a permanent process of improvement.

A recent study by Freitas et al. (2024) highlighted the urgency of integrating research with teacher training. This will enable not only the mastery of theoretical and methodological aspects, but the preparation of professionals capable of transforming the teaching environment, as research-oriented training contributes significantly to strengthening the profession and improving education. A recent study by Candito et al (2024) explores an ongoing training process with teachers from a state school through workshops and school research, articulated through action research, which allowed exploring teachers' perceptions of the training, as well as the challenges and positive aspects of research in the classroom. The results show that research is seen as an essential tool for reflection and knowledge building, increasing CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan;



student interest and allowing the definition of relevant topics. Continuing education brought significant benefits, improving the effectiveness of classes and encouraging reflection on teaching and learning. The development of the training triggered positive changes in the professional development of teachers and in the quality of education, promoting solid teacher training.

And in this teacher improvement process, in-service training plays a fundamental role in the effectiveness of educational practices within the school, providing educators with the opportunity to stay up-to-date on new methodologies, approaches, and educational technologies, without having to be absent from school. This aspect is essential to ensure that pedagogical practices are in tune with needs and expectations, providing teachers with the essential tools to face emerging challenges, adjusted to the dynamic demands of students and the constantly evolving educational context.

In short, the presence of the study group at the school, carrying out the training, provided the institution's teachers with the refinement of their professional skills as a result of the training conducted. In this context, Veiga (2022) talks about paying attention to these relationships between institutions. Emphasis must be placed on the need to value and define strategies on what is specific to teaching practice, the multiple and diverse knowledge, and the common base of knowledge, and in this context, highlight the close relationship between the university and Basic Education, in order to enable training where Basic Education is relevant (Veiga, 2022).

Finally, the partnership between different educational institutions is reinforced; it is a relevant and essential proposal that contributes critically and constructively, as it involves conducting pedagogical action research, thus enriching, referencing, and learning with all those involved (Franco, 2015). Therefore, the findings of this study endorse the propositions of the aforementioned author. It is essential to highlight that the findings of this study cannot be separated from the collaborative context established over more than a decade between the educational institution and the university. This enrichment is derived from critical processes triggered by the awareness that reflective teaching practice can provide significant benefits.





Final Considerations

School research and continuing education are fundamental to raising the standard of teaching, contributing to an effective educational approach adapted to the needs of the educational process. Therefore, it is imperative that educators commit to research, constantly seeking to improve their practices.

In this way, in-service training encourages teachers to continuously reflect on their teaching practice, promoting constant improvements. In addition to improving individual skills, it contributes to a more effective and collaborative learning environment, enriching the school culture with innovation.

By analyzing the accounts of those involved, we identified the potential and benefits of school research in the perceptions of teachers and in their pedagogical activities. It was observed that teachers consider research fundamental for acquiring new knowledge or for its reconstruction. The findings of this study allow us to understand that research integrates teaching practice, using a questioning pedagogical approach that incorporates various approaches and teaching methods. This makes them more open to exploring different pedagogical methods.

Regarding action research, we emphasize that the cycles adopted throughout this study highlighted the potential of action research in the development of educational practice, by allowing the identification of demands, culminating in the development of an action plan that was contextualized with the reality of the students. Action research promoted a cyclical process of improvement for teachers, and based on an action plan, they carried out their teaching practices according to the needs of the school context, allowing critical reflection on pedagogical practices, where educators are challenged to question and consider their different approaches.

In short, action research integrated with school research emerges as a tool to improve educational practice. This approach places educators as active agents in the improvement process, enabling them to build a more effective education adapted to the specific needs of the students.

Finally, this study aligns with the school's Political Pedagogical Project (2019), which aims to make teaching more effective and collaborative through structured CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; SOARES, Felix Alexandre Antunes.



pedagogical research. The initiative includes systematic teacher training actions in partnership with the university, promoting learning experiences focused on research, reflection on practices, and encouraging the construction of knowledge by teachers.

References

ANDRE, Marli. **O papel da pesquisa na formação e na prática dos professores**. Campinas: Papirus, 2008.

BARDIN, Laurence. **Análise de conteúdo**. 1. ed. São Paulo: Edições 70, 2016.

BRASIL. Ministério da Educação. **Base Nacional Comum Curricular**. Brasília: MEC, 2018. Disponível em: https://basenacionalcomum.mec.gov.br/. Acesso em: 8 dez. 2024.

BRUM, Luíza; GASPARIN, João Luiz. **Ensino com pesquisa**: um desafio para a aprendizagem na educação basica. Curitiba: CRV, 2019.

CAETANO, Maria Raquel; MANGANELI, Marineiva Teresinha de Melo. A pesquisa como princípio educativo no Ensino Médio Integrado à Educação Profissional: uma experiência pedagógica no IFSul. **Revista Insignare Scientia – RIS**, v. 3, n. 3, p. 174-189, 2020. DOI: https://doi.org/10.36661/2595-4520.2020v3i3.11782. Disponível em: https://periodicos.uffs.edu.br/index.php/RIS/article/view/11782. Acesso em: 12 nov. 2025.

CANDITO, Vanessa; MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; SOARES, Felix Alexandre Antunes. A formação continuada de professores e a promoção da pesquisa escolar: articulações necessárias. **Revista Espaço Pedagógico,** Passo Fundo, v. 31, e16095, 2024. Disponível em: https://www.upf.br/seer/index.php/rep. Acesso em: 12 nov. 2025.

DEMO, Pedro. **Professor do futuro e reconstrucão do conhecimento**. 6. ed. Petrópolis: Vozes, 2009.

DEMO, Pedro. **Pesquisa**: princípio científico e educativo. 14. ed. São Paulo: Cortez, 2011.

DEMO, Pedro. Educar pela Pesquisa. 10. ed. Campinas: Autores Associados, 2015.

FRANCO, Maria Amélia Santoro. Pedagogia da Pesquisa-Ação. **Educação e Pesquisa**, São Paulo, v. 31, n. 3, p. 483-502, 2005. Disponível em: http://educa.fcc.org.br/scielo.php?script=sci_arttext&pid=S1517-9702200500030001 1&lng=pt&tlng=pt. Acesso em: 12 nov. 2025.





FRANCO, Maria Amélia Santoro. Práticas pedagógicas de ensinar-aprender: por entre resistências e resignações. **Educ. Pesqui.**, São Paulo, v. 41, n. 3, p. 601-614, 2015. DOI: https://doi.org/10.1590/S1517-9702201507140384. Disponível em: http://educa.fcc.org.br/scielo.php?script=sci_arttext&pid=S1517-9702201500030060 1&lng=pt&nrm=iso. Acesso em: 12 nov. 2025.

FRANCO, Maria Amélia Santoro. Pesquisa ação-pedagógica: práticas de empoderamento e participação. **Educ. Temat. Digit.**, Campinas, v. 18, n. 2, p. 511-530, 2016. Disponível em:

https://periodicoscientificos.itp.ifsp.edu.br/index.php/rifp/article/view/2352. Acesso em: 12 nov. 2025.

FREIRE, Paulo. **Pedagogia da autonomia**: saberes necessários à prática educativa. São Paulo: Paz e Terra, 1996.

FREITAS, Renata Morais Porto. Pesquisa no Ensino Fundamental: princípio para a (re)construção do conhecimento. **Revista Acadêmica Educação e Cultura em Debate**, v. 3, n. 2, 2017. Disponível em:

https://revistas.unifan.edu.br/index.php/RevistaISE/article/view/294. Acesso em: 8 dez. 2024.

FREITAS, Vinicius da Silva et al. A formação do professor-pesquisador e os impactos no exercício da ação docente. **Revista Espaço Pedagógico**, [S. l.], v. 31, p. e16104, 2024. DOI: 10.5335/rep.v31.16104. Disponível em: https://seer.upf.br/index.php/rep/article/view/16104. Acesso em: 8 dez. 2024.

GALLON, Mônica da Silva et al. Feiras de Ciências: uma possibilidade à divulgação e comunicação científica no contexto da educação básica. **Revista Insignare Scientia – RIS**, v. 2, n. 4. set./dez. 2019. DOI:

https://doi.org/10.36661/2595-4520.2019v2i4.11000. Disponível em: https://periodicos.uffs.edu.br/index.php/RIS/article/view/11000. Acesso em: 8 dez. 2024.

KIEREPKA, Janice Silvana Novakowski; GÜLLICH, Roque Ismael da Costa; ZANON, Lenir Basso. Das referências às possibilidades do educar pela pesquisa: a problematização de teorias e práticas no processo de formação de professores. **Amazônia - Revista de Educação em Ciências e Matemática**, v. 16, n. 37, p. 21-38, 2020. Disponível em:

https://periodicos.ufpa.br/index.php/revistaamazonia/article/view/8034. Acesso em: 8 dez. 2024.

LEAL, Fidelis Lima; ARAUJO, Hilda Mara Lopes. A pesquisa como princípio educativo no exercício da docência: abordagem translacional. **Revista Espaço Pedagógico**, *[S. l.]*, v. 31, p. e16340, 2024. DOI: 10.5335/rep.v31.16340. Disponível em: https://seer.upf.br/index.php/rep/article/view/16340. Acesso em: 8 dez. 2024.





LIBÂNEO, José Carlos. **Organização e Gestão da Escola**: Teoria e Prática. 5. ed. Goiânia: Alternativa, 2004.

MENEZES, Karla Mendonça; RODRIGUES, Carolina Braz Carlan; CANDITO, Vanessa; SOARES, Felix Alexandre Antunes. A pesquisa-ação como articuladora das práticas pedagógicas de professores do ensino fundamental. Revista Tear: Revista de Educação, Ciência e Tecnologia, Canoas, v. 9, n. 2, p. 1-19, 2020. Disponível em: https://periodicos.ifrs.edu.br/index.php/tear/article/view/4427. Acesso em: 12 nov. 2025.

MOURA, Aline de Carvalho; LIMA, Joyce da Costa. DIÁLOGOS ENTRE ENSINO E PESQUISA: incentivo à pesquisa como atividade investigativa na educação básica. Revista Pedagógica, [S. I.], v. 23, p. 1–21, 2021. DOI: 10.22196/rp.v22i0.6052. Disponível em:

https://pegasus.unochapeco.edu.br/revistas/index.php/pedagogica/article/view/605. Acesso em: 16 dez. 2024.

NÓVOA, António. Firmar a posição como professor, afirmar a profissão docente. Cadernos de Pesquisa, v. 47, n. 166, p. 1106-1133, out./dez. 2017. Disponível em: https://publicacoes.fcc.org.br/cp/article/view/4843. Acesso em: 16 dez. 2024.

PLACCO, Vera Maria Nigro de Souza. Formação em serviço. In: OLIVEIRA, Dalgiza Andrade; DUARTE, Adriana Maria Cancella; VIEIRA, Lívia Maria Fraga. **Dicionário**: trabalho, profissão e condição docente. Belo Horizonte: UFMG/Faculdade de Educação, 2010. DOI: https://doi.org/10.35699/2238-037X.2024.41816. Acesso em: 16 dez. 2024.

PROJETO POLÍTICO PEDAGÓGICO – PPP. **Escola [suprimida]**. Santa Maria, 2019.

PROJETO de Formação Continuada Escola [suprimida] por uma escola ativa e conectada. Santa Maria, 2022.

THIOLLENT, Michel. **Metodologia da pesquisa-ação**. São Paulo: Cortez, 2011.

VEIGA, Ilma Passos Alencastro; SANTOS, Jocyléia Santana dos (orgs.). Formação de professores para a Educação Básica. Petrópolis: Vozes, 2022.

Submitted on: 05-05-2025

Approved on: 29-10-2025

© 2024 Programa de Pós-Graduação em Educação da Universitária Comunitária da Região de Chapecó – Unochapecó Este é um artigo de acesso aberto distribuído nos termos de licença Creative Commons.



