

**SCIENTIFIC RESEARCH AS A FORMATIVE PRINCIPLE: THE TEACHER-RESEARCHER
AND THE PRODUCTION OF KNOWLEDGE IN THE SCHOOL**

 <https://doi.org/10.63330/aurumpub.057-007>

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Abstract

The complexity of contemporary educational challenges requires a new understanding of the teacher's role in the knowledge society. In this context, teachers are no longer understood merely as transmitters of previously established content; rather, they come to assume an investigative, critical, and reflective stance toward the situations experienced in everyday school life. Scientific research, therefore, constitutes an essential formative principle, capable of strengthening teachers' intellectual autonomy, expanding their capacity to problematize reality, and fostering the construction of more conscious and transformative pedagogical practices. This chapter aims to discuss scientific research as a constitutive element of teacher education, analyzing the construction of the teacher-researcher and the role of the school as a space for knowledge production. This is a qualitative study of a basic nature, with exploratory and descriptive objectives, developed through a bibliographic review of classic and contemporary works on teacher education, educational research, and reflective practice. The discussion is grounded in the studies of Demo, Freire, Nóvoa, Schön, Stenhouse, Dewey, André, Lüdke, Gatti, and Boaventura de Sousa Santos, as well as in the contributions of Oliveira and Gonzaga (2012) regarding scientific education and research-based practicum in teacher education. The results of the theoretical reflection show that the constitution of the teacher-researcher requires overcoming a teaching practice based on the reproduction of knowledge, advocating professional practice guided by investigation, critical reflection, and the capacity to produce knowledge from educational experience itself. It is concluded that research, when incorporated into teachers' professional identity, strengthens autonomy, continuing education, and teachers' commitment to democratic, critical, and socially engaged education. Thus, the school ceases to be merely a space for the application of externally produced theories and comes to be recognized as a legitimate environment for investigation, scientific production, and the transformation of reality.

Keywords: Knowledge production, Reflective practice, Scientific research, Teacher education, Teacher-researcher.

INTRODUCTION

Contemporary society, marked by the rapid circulation of information, scientific and technological advancement, and the complexity of social challenges, requires a redefinition of the teacher's role. In a context in which knowledge is continuously changing, it is no longer sufficient to understand the teacher as a mere transmitter of content produced by other individuals or institutions. Contemporary teaching requires professionals capable of investigating their own practice, problematizing situations present in everyday school life, and producing knowledge that contributes to the transformation of educational reality.

Historically, scientific production has been associated with university settings and with researchers linked to formal research centers. However, studies on teacher education have shown that the school is also a legitimate space for knowledge production, since everyday school life presents challenges, experiences, and problems that require ongoing observation, reflection, and investigation. In this sense, the teacher-researcher emerges as a professional who goes beyond the condition of executor of externally developed pedagogical proposals and assumes an active stance toward educational processes.

In defending research as a constitutive principle of teaching practice, Freire (1996) establishes an inseparable relationship between teaching and investigating, affirming that educational activity requires curiosity, questioning, and a permanent search for knowledge. In one of his most emblematic reflections, the author states:

“There is no teaching without research and no research without teaching. These acts are found within one another. While I teach, I continue searching and researching. I teach because I search, because I asked, because I ask questions and question myself. I research in order to verify, and by verifying I intervene; by intervening I educate and educate myself. I research in order to know what I do not yet know and to communicate or announce the novelty.” (Freire, 1996, p. 29).

Freire's understanding breaks with the idea of a teaching practice based on the repetition of ready-made knowledge. From this perspective, the teacher does not occupy a passive position in relation to

historically produced knowledge, but builds his or her professionalism through epistemological curiosity, critical analysis of reality, and a permanent willingness to learn. Teaching, therefore, constitutes an investigative act, in which reflection on one's own pedagogical action becomes an essential element for the transformation of educational practices.

This same conception is deepened by Demo (1996), who understands research as the foundation of emancipatory education and the construction of intellectual autonomy. For the author, an education committed to the critical formation of individuals must overcome models based on the mere reproduction of information and promote a culture of questioning, argumentation, and the autonomous elaboration of knowledge. As he states:

“The first essential condition for education through research is that the education professional be a researcher, that is, that he or she manage research as a scientific and educational principle and adopt it as an everyday attitude. The goal is not a research professional, but an education professional formed through research.” (Demo, 1996, p. 2).

The reflection presented by Demo is particularly significant for understanding the concept of the teacher-researcher. It is not a matter of requiring all teachers to be full-time academic researchers or necessarily linked to formal university production. Rather, what is proposed is the constitution of an investigative posture in the exercise of teaching, one capable of transforming doubts, challenges, and situations experienced at school into opportunities for analysis, knowledge production, and the improvement of pedagogical practice.

In this context, research assumes a central role in the processes of initial and continuing teacher education. The construction of teaching identity is directly related to the teacher's capacity to understand his or her practice as an object of investigation, articulating theory and school reality. Oliveira and Gonzaga (2012) emphasize that the inclusion of research in the formative process enables future teachers to develop a scientific stance toward the profession, encouraging observation, problematization, and the search for grounded answers to the challenges encountered in everyday educational life.

The discussion of the teacher-researcher is also related to the understanding that teacher education does not end upon completion of an initial training course. On the contrary, it is a continuous path, built throughout professional experiences, interactions established within the school environment, and the capacity to reflect critically on one's own actions. In this sense, Nóvoa (1992) states that education is not built through the accumulation of courses or techniques, but through constant work of reflection on practices and the ongoing reconstruction of professional identity.

In addressing teacher education, Nóvoa (1992, p. 25) highlights:

“Education is not built through the accumulation of courses, knowledge, or techniques, but rather through a work of critical reflexivity on practices and the permanent (re)construction of a personal identity.”

This perspective shows that teaching is a profession marked by the continuous movement between experience, reflection, and transformation. The teacher-researcher, therefore, is one who observes school reality with an investigative gaze, recognizes the challenges present in his or her practice, and produces knowledge that contributes not only to professional development but also to the improvement of educational processes.

When considering the school as a space for investigation, it becomes necessary to overcome the view that scientific knowledge is produced exclusively outside the school environment. Teachers' everyday practice, the relationships established with students, the methodologies used, and the challenges encountered in the teaching and learning process constitute legitimate objects of study and analysis. In this sense, research developed by teachers on their own practice strengthens teacher autonomy and contributes to the construction of a more conscious, critical, and contextualized education.

In view of this scenario, this chapter aims to discuss scientific research as a formative principle in the constitution of the teacher-researcher, reflecting on the role of investigation in teacher education and on the school as a space for knowledge production. To this end, the methodological path of the research is

first presented; subsequently, research is discussed as a foundation of teaching, along with the construction of the teacher-researcher's identity, the role of the school as an environment for scientific production, and, finally, the possibilities for transforming pedagogical practice through reflection and investigation.

METHODOLOGY

The present study is characterized as qualitative research, of a basic nature, with exploratory and descriptive objectives, developed through bibliographic research. The choice of this methodological path is grounded in the need to understand the constitution of the teacher-researcher and scientific research as formative principles based on the analysis of consolidated academic productions in the field of Education.

The qualitative approach makes it possible to understand educational phenomena in their complexity, considering the meanings, experiences, and relationships established by individuals in their social contexts. According to Minayo (2008), qualitative research works with the universe of meanings, beliefs, values, and interpretations constructed in human relationships, making it especially appropriate for the investigation of formative processes and educational practices.

With regard to its objectives, the study has an exploratory character insofar as it seeks to broaden understanding of the formation of the teacher-researcher and its implications for educational practice. According to Gil (2002, p. 41), exploratory research aims to provide “greater familiarity with the problem, with a view to making it more explicit or to constructing hypotheses.” In addition, it has a descriptive character, as it analyzes characteristics, concepts, and theoretical perspectives related to scientific research within the scope of teaching.

The methodological procedure adopted consists of bibliographic research, understood as a process of critical engagement with knowledge already produced on a given topic. According to Gil (2008), this type of investigation is developed from previously published materials, such as books, scientific articles,

theses, dissertations, and academic documents, allowing the researcher to analyze different contributions concerning the object under study.

This understanding is complemented by Lakatos and Marconi (2003), who state that bibliographic research does not represent a simple reproduction of what has already been written, but enables the researcher to examine a topic from new perspectives, establish relationships among different authors, and produce new interpretations.

The selected theoretical framework includes authors who discuss research as a foundation of teacher education and educational practice. In this regard, the contributions of Demo (1996) and Freire (1996) support the understanding of research as a teacher's everyday attitude and as an inseparable dimension of the act of teaching. The discussion on professional identity and reflective practice dialogues with Nóvoa (1992; 2009) and Schön (2000), while the reflections of Stenhouse (1987), Dewey (1979), André (2001), Lüdke (2001), and Gatti (2003; 2010) contribute to understanding the school as a space for investigation and the production of teachers' knowledge.

In addition, the contributions of Oliveira and Gonzaga (2012) were considered, as they discuss scientific education and the research-based practicum as fundamental elements in initial teacher education, advocating the construction of an investigative posture capable of bringing together theory, practice, and knowledge production in the school context.

The critical analysis of the selected references made it possible to understand that scientific research should not be conceived as an activity restricted to the university or to formal spaces of academic production. On the contrary, it constitutes an intellectual and professional attitude that enables teachers to investigate their own practice, problematize school reality, and construct new knowledge capable of transforming educational processes.

RESEARCH AS A FORMATIVE PRINCIPLE IN TEACHING

Understanding research as a constitutive element of teacher education represents a significant shift in the way the teacher's role is perceived in contemporary society. For a long time, educational practice was associated with the transmission of knowledge produced by specialists external to school reality, assigning teachers the function of applying methods, content, and guidelines previously established. However, the transformations that have occurred in the educational field reveal the need to recognize the teacher as an intellectual subject, capable of questioning his or her reality, producing knowledge, and transforming practice through investigation.

In this sense, research ceases to be understood as an activity distant from the everyday life of the classroom and becomes an educational principle capable of strengthening teacher autonomy. Demo (1996) emphasizes that research-based education breaks with a passive conception of learning, as it enables teachers and students to assume an authorial stance toward knowledge. For the author, research is not limited to a methodological technique, but constitutes an attitude toward life and the construction of knowledge.

In discussing the centrality of research in education, Demo (1996) states:

“Research is a process that must appear throughout the entire educational path, as the educational principle it is, at the foundation of any emancipatory proposal. If educating is, above all, motivating the subject's creativity so that the new master may emerge, and never the disciple, research assumes a crucial role, because it is through the reconstruction of knowledge that human historical competence is formed.” (Demo, 1996, p. 2).

The reflection presented by the author allows us to understand that research has not only a scientific dimension, but also a formative one. By investigating, the teacher develops the capacity to problematize situations, analyze different perspectives, construct arguments, and elaborate grounded responses to the challenges encountered in educational practice. Thus, teaching ceases to be based on the repetition of ready-made models and becomes constituted by permanent processes of reflection, creation, and transformation.

This understanding is close to the perspective defended by John Dewey, who regards experience and investigation as essential elements of learning. For Dewey (1979), knowledge is not constructed passively, but through the interaction between the subject and the problems encountered in reality. The investigative attitude arises from doubt, curiosity, and the need to find answers to concrete situations. Thus, education should promote experiences that enable individuals to observe, question, formulate hypotheses, and construct new knowledge.

Within the scope of teacher education, this conception is fundamental, as it shows that teachers need to assume a posture of constant investigation of their own practice. Everyday school life presents complex situations, marked by student diversity, social changes, and the specific demands of each educational context. Thus, to research means to understand the classroom as a living space, in which the difficulties and possibilities of teaching become objects of analysis and knowledge production.

This perspective is also present in the contributions of Lawrence Stenhouse (1987), one of the main advocates of the idea of the teacher-researcher. For the author, the curriculum should not be understood as a rigid set of prescriptions, but as a field of permanent investigation conducted by the teacher. In this sense, Stenhouse states:

“Curriculum development must belong to teachers. If it cannot be developed by teachers, it is not a curriculum, but an instruction imposed upon teachers.” (Stenhouse, 1987, p. 142).

Although the statement emphasizes the curriculum, it reveals a broader understanding of teacher professionalism: the teacher is not a mere executor of proposals constructed by others, but an intellectual who continuously interprets, adapts, evaluates, and reconstructs educational processes.

Research as a formative principle is also supported by the Freirean perspective. For Freire (1996), teaching requires curiosity, intellectual humility, and a willingness to learn constantly. The educator who conducts research recognizes that knowledge is not finished and that pedagogical practice must be

continuously analyzed and reconstructed. Thus, the act of investigating constitutes an ethical commitment to improving education and forming critical and autonomous individuals.

Therefore, recognizing research as a foundation of teaching means assigning teachers the role of protagonists in the construction of educational knowledge. Investigation developed from the challenges of the school enables the creation of more contextualized practices, the understanding of students' needs, and the strengthening of professional autonomy. The teacher-researcher thus emerges as a subject who teaches, learns, questions, and produces knowledge from the reality in which he or she is situated.

THE TEACHER-RESEARCHER AND THE CONSTRUCTION OF PROFESSIONAL IDENTITY

The constitution of the teacher-researcher is directly related to the understanding of teaching as a profession that requires permanent education, critical reflection, and the production of knowledge about one's own practice. Teaching identity is not constructed immediately or solely through initial education, but results from a path marked by lived experiences, relationships established in the school context, and the teacher's capacity to assign new meanings to his or her pedagogical work.

In this direction, Nóvoa (1992) understands teaching identity as a process in constant construction, in which personal and professional dimensions are intertwined. Being a teacher involves a formative trajectory that is not limited to the accumulation of technical knowledge, but requires continuous reflection on one's own experiences and on the meanings attributed to the profession. As the author states:

“To be in formation implies a personal investment, a free and creative work on one's own paths and projects, with a view to constructing an identity, which is also a professional identity.” (Nóvoa, 1992, p. 25).

This perspective demonstrates that the identity of the teacher-researcher is associated with the willingness to learn continuously and to transform everyday experience into a source of knowledge. The teacher who investigates his or her practice develops a critical stance toward the difficulties encountered

at school, avoiding the automatic reproduction of methodologies and seeking to understand educational phenomena in their complexity.

In this context, the studies of Oliveira and Gonzaga (2012) contribute significantly to the debate by showing that the inclusion of research in the formative process enables future teachers to develop a scientific attitude toward educational practice. The authors argue that the practicum associated with research favors the approximation between theory and practice, allowing the teacher in training to observe, analyze, and problematize school reality, constructing knowledge from lived experiences.

This conception dialogues with Donald Schön (2000), in proposing the idea of the reflective professional. According to the author, professionals work in complex and unpredictable contexts in which technical knowledge, although necessary, is not always sufficient to solve the problems encountered. Thus, it becomes essential to develop the capacity to reflect during action and subsequently upon it, transforming professional experience into an opportunity for learning.

Reflective practice is also discussed by Marli André (2001), who emphasizes that research carried out by teachers constitutes a path for understanding the reality of the school and promoting significant changes in pedagogical work. Investigation developed in the educational context itself brings teachers closer to a more autonomous posture, allowing them to cease being merely consumers of theories produced by other researchers and to also become producers of knowledge.

The discussion proposed by Lüdke (2001) reinforces this perspective by advocating closer ties between research and teaching practice. The author highlights the need to overcome the historical separation between the academic researcher and the basic education teacher, recognizing that everyday school life produces relevant questions that can give rise to consistent and socially significant scientific investigations.

Based on these contributions, it is understood that the teacher-researcher does not correspond to an idealized model of a professional who has all the answers regarding the educational process. On the contrary, the teacher-researcher is characterized by the disposition to formulate questions, investigate

problems, engage with theoretical references, and continuously reconstruct knowledge. Research thus becomes a professional attitude, a way of looking at the school and understanding the complexity of educational relationships.

Accordingly, the construction of the teacher-researcher's identity represents a movement toward overcoming a form of teaching based solely on the application of previously defined content and methods. By assuming investigation as part of his or her practice, the teacher strengthens intellectual autonomy, expands the capacity to intervene in school reality, and contributes to the production of knowledge committed to the transformation of education.

THE SCHOOL AS A SPACE FOR KNOWLEDGE PRODUCTION

Understanding the school as a space for knowledge production represents a significant shift in relation to traditional models that assigned the university the exclusive role of producing scientific knowledge, while teachers in basic education were expected only to apply theories developed by researchers external to school reality. Although the university plays an essential role in scientific development, it is necessary to recognize that the school also produces knowledge from the experiences, human relationships, pedagogical challenges, and problems present in its everyday life.

In this sense, the teacher-researcher assumes a fundamental role by transforming educational practice into an object of investigation. The everyday life of the classroom, far from representing merely a space for the execution of previously defined methodologies, presents complex situations that require observation, interpretation, analysis, and grounded decision-making. Investigation carried out by teachers enables the construction of contextualized knowledge, directly related to the needs of students and to the specificities of each school reality.

In discussing the relationship between teachers and research, André (2001) emphasizes the need to overcome the view that separates the teacher from the researcher, understanding that investigation can constitute an integral element of the teaching profession. The approximation between research and

practice allows teachers to develop a more autonomous and critical stance toward educational challenges, ceasing to occupy only the place of consumers of theories and becoming producers of knowledge about their own work.

This perspective is reinforced by Lüdke (2001), who argues that research conducted by teachers has the potential to qualify pedagogical practices and broaden understanding of the phenomena that occur within the school. The author argues that teachers' everyday experience constitutes a rich source of questions and investigative problems, capable of generating relevant knowledge for the educational field.

The appreciation of knowledge produced in different educational contexts is also supported by the reflections of Boaventura de Sousa Santos (2007), especially in his defense of the ecology of knowledge. The author criticizes the idea that only certain forms of knowledge have scientific legitimacy, proposing a more plural perspective in which different ways of understanding the world can enter into dialogue.

In discussing this broadening of the concept of knowledge, Santos (2007, p. 85) states:

“The ecology of knowledges is a form of extension in reverse, from outside the university into the university. It consists of promoting dialogues between the scientific or humanistic knowledge produced by the university and the lay, popular, traditional, urban, peasant knowledges, originating from non-Western cultures, that circulate in society.”

Although Santos's reflection is primarily related to the relationship between university and society, it contributes significantly to understanding the school as a territory of multiple forms of knowledge. The knowledge constructed by teachers in their practice, students' experiences, knowledge originating from communities, and scientific references can establish complementary relationships, enriching educational processes.

In this direction, recognizing the school as a space for knowledge production means valuing the teacher as an intellectual who interprets reality, formulates questions, constructs investigative strategies, and produces new understandings of teaching and learning processes. As Freire (1996) states, teaching requires research, curiosity, and permanent openness to the construction of the new. Teaching practice

committed to investigation breaks with the idea of education based on repetition and begins to value questioning, creativity, and the transformation of reality.

Gatti's (2010) contributions also show that strengthening research in teacher education constitutes an essential path for teachers' professional development. The author emphasizes that the professionalization of teaching requires educators to develop analytical and reflective capacities, understanding pedagogical practice as a complex field that demands study, investigation, and the constant production of knowledge.

Thus, when the school is recognized as an investigative environment, it ceases to be seen merely as a place for the transmission of content and assumes its potential as a space for creation, reflection, and scientific production. The teacher-researcher, in this context, becomes a subject who articulates theory and practice, produces knowledge about his or her experience, and contributes to the construction of a more critical, democratic, and socially committed education.

RESEARCH, REFLECTION, AND THE TRANSFORMATION OF PEDAGOGICAL PRACTICE

Research carried out by teachers finds its greatest relevance when it goes beyond the field of observation and becomes an instrument for reflection and transformation of pedagogical practice. Investigating everyday school life means looking at experiences lived in the classroom not as isolated events, but as phenomena that can be understood, analyzed, and resignified in light of theoretical references and the concrete needs of the subjects involved in the educational process.

In this scenario, reflection on practice constitutes an indispensable element for teacher professionalization. Schön (2000) states that professionals face situations marked by uncertainty, singularity, and complexity, making it impossible to solve all problems solely through the application of previously established technical knowledge. In this way, teachers need to develop the capacity to reflect

during their action and subsequently upon it, transforming their experiences into a permanent source of learning.

The idea of the reflective teacher is close to the contributions of Paulo Freire, who understands pedagogical practice as a continuous movement between action, reflection, and transformation. The author emphasizes:

“It is by critically thinking about today’s or yesterday’s practice that one can improve the next practice. The theoretical discourse itself, necessary for critical reflection, must be so concrete that it almost merges with practice.” (Freire, 1996, p. 43).

Freire’s statement shows that reflection does not represent an abstract exercise distant from school reality. On the contrary, it arises from the encounter between theory and practice, allowing teachers to understand their challenges, review their strategies, and construct new possibilities for action.

In the same direction, Nóvoa (2009) argues that teacher education should be understood as a process constructed within the profession itself, through the sharing of experiences, dialogue among teachers, and investigation of the real problems faced in everyday school life. Professional development occurs when educators assume an active stance toward their education, recognizing themselves as subjects responsible for the construction of their knowledge.

Research, in this sense, constitutes a path toward strengthening teacher autonomy. By investigating their practice, teachers cease to depend exclusively on external models and begin to produce situated knowledge, coherent with their reality and with students’ needs. This movement does not mean rejecting the scientific knowledge produced by academia, but establishing a dialogical relationship between theory and practice, in which both fields mutually enrich each other.

Oliveira and Gonzaga (2012) reinforce this perspective by demonstrating that research-based education favors the constitution of more critical, autonomous teachers capable of understanding educational processes in their complexity. By developing an investigative posture from initial education

onward, the future teacher learns to perceive the school as a space of questions, possibilities, and the permanent construction of knowledge.

Therefore, research and teaching constitute inseparable dimensions of a pedagogical practice committed to the quality of education. The teacher-researcher is not defined solely by the conduct of formal studies, but by the capacity to maintain an investigative attitude toward reality, transforming doubts into research problems, experiences into knowledge, and everyday challenges into possibilities for innovation and change.

The appreciation of research in the school context therefore represents a path toward strengthening the teaching profession, expanding educators' autonomy, and constructing more conscious and contextualized pedagogical practices. A school that encourages its teachers to conduct research is a school that recognizes the collective production of knowledge and understands education as a permanent process of investigation, dialogue, and social transformation.

FINAL CONSIDERATIONS

Reflecting on scientific research as a formative principle implies recognizing that teaching goes beyond the dimension of content transmission, configuring itself as an intellectual, critical, and permanently investigative practice. Throughout this chapter, the aim has been to show that the teacher-researcher is not only the one who develops research linked to formal academic spaces, but the professional who assumes a posture of epistemological curiosity toward reality, questioning his or her practice, analyzing the challenges of everyday school life, and producing knowledge capable of contributing to the transformation of educational processes.

The contributions of Paulo Freire and Pedro Demo made it possible to understand research as an inseparable element of the act of teaching. While Freire defends the inseparability between teaching and investigation, Demo emphasizes research as a scientific and educational principle capable of promoting intellectual autonomy and the emancipation of subjects. From this perspective, teaching and researching

constitute complementary movements, in which the teacher learns while teaching and teaches while continuing to learn.

The discussion developed also showed that the construction of the teacher-researcher is directly related to the constitution of professional identity. The reflections of Nóvoa, Schön, André, and Lüdke demonstrate that teacher education does not end with the attainment of a diploma or the acquisition of pedagogical techniques, but is realized in a continuous process of reflection on practice, dialogue with other professionals, and the production of new knowledge from experiences lived in the school context.

In this movement, the school ceases to be understood as a space that merely reproduces externally produced knowledge and comes to be recognized as a legitimate environment for investigation and scientific production. Teachers' everyday experiences, challenges related to learning, pedagogical practices, and relationships built with students constitute relevant objects of research and contribute to broadening understanding of educational phenomena. The contributions of Boaventura de Sousa Santos, by valuing the plurality of knowledges, strengthen the understanding that knowledge is constructed through dialogue among different experiences, contexts, and subjects.

The inclusion of research in the initial and continuing education of teachers, as discussed by Oliveira and Gonzaga (2012), represents a concrete possibility for bringing theory and practice closer together, favoring the construction of more autonomous, reflective professionals committed to the reality in which they work. By developing an investigative posture from the formative process onward, teachers learn to look at the school as a space of questions, discoveries, and permanent reconstruction of knowledge.

Moreover, in light of the constant social, cultural, scientific, and technological changes that traverse contemporary education, the teacher education capable of critically interpreting reality and proposing grounded interventions becomes increasingly necessary. In this context, research assumes a strategic role, as it enables teachers to abandon the position of mere executors of prescribed practices and

to assume protagonism in the construction of educational responses more consistent with the needs of students and school communities.

It is concluded, therefore, that the consolidation of an investigative culture in the school environment represents a fundamental path for strengthening teacher professionalism and qualifying teaching and learning processes. The teacher-researcher is characterized by the permanent disposition to ask, observe, problematize, study, and transform his or her practice. In this way, scientific research ceases to occupy a peripheral place in teacher education and becomes an essential dimension of an education committed to autonomy, knowledge production, and social transformation.

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