

Theories of education and educational research: Contributions to the continuous education of teachers

Teorias da educação e pesquisa educacional: Contribuições à formação continuada de professores

Teorías de la educación e investigación educativa: Contribuciones a la formación continua de profesores

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Abstract

Scientific research in the educational field can become a great ally with regard to the construction of new knowledge and critical training for education professionals. It is through research that we will seek to become aware that we are producers of transforming knowledge, facilitating improvement and encouraging pedagogical work. Based on the above, this article aims to address the theories of education in some of its phases and its influence on the preparation of the educator, reflecting on the formation of teachers from the educational research which seeks to follow the course, maintaining a relationship dialectic between theory and practice, that is, from “understanding” to pedagogical “doing”. For the construction of the theoretical foundation of this research, we selected some authors, among them: Batista, Saviani, Suchodolski, Freire and Schnetzler. Discussions point out that teaching as a transforming action in society is renewed from teacher training, which is the result of research based on theories of education.

Keywords: Theoretical basis; Educational research; Continuing training; Teaching.

Resumo

A pesquisa científica no campo educacional pode se tornar uma grande aliada no que diz respeito a construção de novos conhecimentos e uma formação crítica para o profissional da educação. É através da pesquisa que buscaremos tomar consciência de que somos produtores do saber transformador, facilitando o aperfeiçoamento e estímulo para o fazer pedagógico. Com base no exposto, este artigo tem como objetivo abordar sobre as teorias da educação em algumas de suas fases e sua influência na preparação do educador, refletindo sobre a formação de professores a partir da pesquisa educacional a qual busca seguir o curso, mantendo uma relação dialética entre teoria e prática, ou seja, do “compreender” para o “fazer” pedagógico. Para a construção da fundamentação teórica deste trabalho selecionamos alguns autores, dentre eles: Batista, Saviani, Suchodolski, Freire e Schnetzler. As discussões apontam que o exercício da docência enquanto ação transformadora da sociedade renova-se a partir da formação docente a qual é fruto da pesquisa com base nas teorias da educação.

Palavras-chave: Bases teóricas; Pesquisa educacional; Formação continuada; Ensino.

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Resumen

La investigación científica en el campo educativo puede convertirse en una gran aliada en lo que respecta a la construcción de nuevos conocimientos y a una formación crítica para el profesional de la educación. Es a través de la investigación que buscamos tomar conciencia de que somos productores del saber transformador, facilitando el perfeccionamiento y estimulando la labor pedagógica. Con base en lo expuesto, este artículo tiene como objetivo abordar las teorías de la educación en algunas de sus fases y su influencia en la preparación del educador, reflexionando sobre la formación de profesores a partir de la investigación educativa que busca seguir el curso, manteniendo una relación dialéctica entre teoría y práctica, es decir, del "comprender" al "hacer" pedagógico. Para la construcción de la fundamentación teórica de este trabajo, hemos seleccionado algunos autores, entre ellos: Batista, Saviani, Suchodolski, Freire y Schnetzler. Las discusiones señalan que el ejercicio de la docencia como acción transformadora de la sociedad se renueva a partir de la formación docente, que es resultado de la investigación basada en las teorías de la educación.

Palabras clave: Bases teóricas; Investigación educativa; Formación continua; Enseñanza.

1. Introduction

The study of educational theories has a direct and necessary relationship with the educational process, where the human dimension serves as its foundation. Consequently, when contemplating educational practices, there is a tendency to consider the social function of the school, which should not deviate from its primary objective. This objective provides students with systematic knowledge and the accumulated scientific knowledge over time—referred to as powerful knowledge—which equips students to act consciously and participatively in their social environment (Galianu & Loyzano, 2014).

According to Michael Young (2014), what constitutes education for students has a social and power-related connection with a specific history. The curriculum comprises a complex body of specialized knowledge representing "powerful knowledge." In other words, it has the capacity to offer students resources for understanding, explaining, and considering alternatives in the development of activities related to various knowledge areas throughout different stages of education.

In alignment with Saviani (1991, p.21), who states that education should be "[...] the act of directly and intentionally producing, in each singular individual, the humanity that is historically and collectively produced by the whole of humankind."

In this sense, teacher training is fundamental for the teaching profession to facilitate the acquisition of this specialized knowledge. It is essential to emphasize that teachers bring from their life experiences learnings that encompass the act of educating, but it is with theoretical grounding that they refine and legitimize their pedagogical practice.

Throughout history, education takes on different facets, closely linked to various philosophical currents in education. Reflecting on conceptions that define education involves considering instruments that contribute to the construction of critical thinking, towards a worldview as a practice of human essence that expands the existence of individuals as social, historical, and cultural beings. As argued by Suchodolski (2000), we must align pedagogical activity with social, cultural, and historical activities, not viewing the social existence of humans in contradiction with their essence.

Building upon this reflection on educational theories, it is important to note that, as a whole, these theories can be broadly classified into two major streams. The first is of an essentialist and traditional nature, representing a pedagogy whose priority is to think solely about how the student should be, without considering how they are, thus overlooking their social reality. The second stream is of an existentialist and liberal nature, advocating for an education based on the actual existence of individuals. This entails developing pedagogical work based on what the student is, rather than what they should be, considering them as individuals with rights and duties who should occupy the center of the teaching-learning process (Pereira & Cerda, 2018).

In this way, these theories have, for a long time, attempted to assert themselves in opposition to each other. This antagonism in educational theories can be termed as dominant interests in the educational process. Based on this, Suchodolski (2000) seeks to present these opposing forces, demonstrating that neither alone adequately serves a critical pedagogical sphere.

In the quest for a solution to the conflict, the need for a new theory arises, one that seeks to overcome or diminish the limitations presented. It is important to note that neither the authoritarianism of traditional pedagogy nor the liberalism of the new school pedagogy (Pereira & Cerda, 2018) is sufficient.

Considering Saviani (2012) and Freire (1996), it becomes apparent that a pedagogical theory is needed to transcend antagonisms and understand the reality of the student and the teacher as a starting point for knowledge acquisition. This creates the possibility of change to transform society according to what is necessary, based on the experiences of the school community.

Thus, there is a need to rethink the models of teacher qualification throughout history, aiming to enable new processes that meet new demands while not losing sight of the pedagogical knowledge built over the years, as well as the reality that brings fundamental elements for the construction of a professional identity.

To mitigate the effects and strive for better performance from teaching professionals, it is important to reflect on continuous education that encompasses the three aforementioned elements. In this regard, Schnetzler (2003) also presents the three main reasons for advocating continued education for teachers:

[...] the need for continuous professional improvement and critical reflections on one's own pedagogical practice, as the effective enhancement of the teaching-learning process only occurs through the actions of the teacher; the need to overcome the gap between contributions from educational research and their application to classroom improvement, implying that the teacher should also be a researcher of their own practice; in general, teachers often have a simplistic view of the teaching profession, believing that knowing the content and employing some pedagogical techniques are sufficient for effective teaching (Schnetzler & Rosa, 2003, p.27).

According to Nascimento et al., (2020) one of the reasons for contemplating the process of continuous education lies in the need to bridge the gap between contributions from educational research and their practical application in the improvement of classroom practices. This implies the necessity of transforming the teacher into a researcher of their own pedagogical practice.

Consequently, by maintaining alignment between theories discussing education and the teacher training process, we have the opportunity to enhance the educator's performance. This connection allows for the intersection of theory, practice, and research a fundamental tripod in the pursuit of education that enhances both teaching and learning.

Our work is developed with the aim of discussing some major philosophical currents and their influences on the preparation for teaching. In the following sections, we will present educational theories in some of their phases and what they propose for the educational field, enabling an understanding of some pedagogical practices employed by teachers. In this way, we adopt a qualitative research approach with a focus on bibliographic exploration.

2. Research Methodology

The literature review incorporated in this study encompasses topics relevant to education theories and educational research, with the purpose of deepening the understanding of theoretical principles, analyzing their evolutionary trajectory and from “understanding” to pedagogical “doing”. This analysis was conducted through consultations of scientific articles, literary works, government publications, and materials available online.

Therefore, the research conducted in this work can be classified as exploratory, although it also exhibits descriptive and explanatory characteristics. This is because, as stated by Boente and Braga (2004), exploratory research aims to provide a more in-depth understanding of a problem for which there is limited available information, often taking the form of literature reviews or case studies. In the context of this work, the primarily employed technique is literature review.

2.1 Structure of the work

The structure of the work is comprehensive and organized, initially addressing "Education Theories and Their Philosophical Currents" and subsequently exploring the history, perspectives, and the involvement of these theories in teacher training. The transition to the section on educational research as a perspective for continued training demonstrates a logical progression, while the last part focuses on the practical application of theories in pedagogical practice. The structure suggests a careful connection between theory and practice, providing a complete and logical insight into the subject matter.

3. Education Theories and Their Philosophical Currents

The structure of the theory of education begins with the pedagogical thought of Plato³, in his pedagogical philosophy, assigned to pedagogical practice the function of realizing what man should be, starting from some fundamental questions: How should man be? Is it his essence that determines him? The philosopher sought to distinguish in man himself what belongs to the world of shadows, such as the body, desire, and the senses, from what belongs to the magnificent world of ideas, which would be the spirit in its perfect form.

For this purpose, the eminent pedagogue directed an education that would prepare man for the most important activities to be carried out in society in a perfect manner. However, he emphasized that good education leads man to the perfect world of ideas, distancing him from the world of shadows. "[...] thanks to a correct education combined with natural happiness, he usually becomes the most divine and the most docile of all creatures; lacking sufficient and well-directed education, he is the wildest of all on Earth" (Plato, 1999, p. 248).

Plato's thought attracted some followers, one of them was Saint Augustine⁴ (354-430) considered the most influential Western thinker of the early centuries of the Middle Ages (354-430), formulated a philosophy that provided rational support for Christianity. In other words, belief acquired doctrinal substance to guide education by attributing the role of rational soul as the locus of education, where man acquired knowledge. It is noteworthy that, for Augustine, true knowledge depended on Illumination, meaning that it was God who "radiated" the paths for the apprehension of this wisdom offered to man.

Based on Augustine's thought, man by himself did not possess the capacity to construct an idea or thought that could offer him any knowledge; he relied on God (cf. Confessions, X, 5, 7. Soliloquies, I, 8, 15. The Trinity, VIII, 2, 3).

However, when it comes to things that we perceive through the mind, that is, through intellect and reason, we are truly speaking of things that we contemplate within that inner light of Truth. This light illuminates and is enjoyed by the one who is called the "inner man." Even then, our listener, if he also sees these things through that intimate and pure vision, understands what I am saying through his contemplation, not through my words. Therefore, when expressing true things, I am not even teaching him who perceives these true things, for he is not taught by my words, but by the things themselves that are revealed to him (The Teacher, 12).

Henceforth, we can consider that man should aspire to a mystical life distant from the world and everyday occupations, a life superior to the active life considered by Plato as the world of shadows. Understanding that wisdom could only be achieved through contemplation, it is essential to highlight that to attain wisdom, one needed to contemplate God as the illuminator of the path to knowledge without escaping from one's temporal reality. In this sense, man would achieve purification for a happy life through education, with God as the master.

³ The first Western thinker whose writings have survived intact, Plato (c. 427 BCE–c. 347 BCE), the favored disciple of Socrates, is generally regarded as one of the greatest philosophers of all time (Harwood, 2013).

⁴ According to Harwood in his guide on the ideas of 100 great thinkers, Saint Augustine (354-430 AD) indisputably was the greatest philosopher between Aristotle and Saint Thomas Aquinas. He managed to merge Christian belief with the Platonic philosophical tradition. Augustine argued that, philosophically, true wisdom can only be attained through God and religious faith.

The idealism stemming from a philosophical stance advocated by Plato, which posited that the existence of things in the world depends on the ideas present in the human mind, proliferated and diversified, resulting in the rationalism of Descartes⁵. Considered the precursor of a method that involved breaking down the whole into parts and classifying them from easy to difficult, Descartes dedicated himself to the pursuit of secure knowledge that could satisfy his desire to understand. Much like Descartes liked to express, "[...] I have always had an immense desire to learn to distinguish the true from the false, to see clearly in my actions and walk securely in this life" (1983, p.33).

Then Comenius⁶ appears proposed the method of knowledge through experience, which had as its precept the guarantee of access to scriptures (the word of God) for everyone, without distinctions or exclusivities. In this perspective, the pursuit through teaching laypeople about the things of nature created by God using a "grand" method, broad, clear, objective, and solid, was deemed legitimate. Care was always taken to avoid falling into the sin of pride in the quest for magnificence (Batista, 2017, p. 260).

Shortly thereafter, emerges a line of thought that deals with biological logic, and this was the foundation of Aristotle⁷ opposed Platonic thought by emphasizing matter over the ideas of Plato's world. For Aristotle, being is, above all, nature, as nature forms itself from within, growing spontaneously from the inside out. In Book II of Physics, Aristotle presents natural beings in contrast to artificial beings, where for the latter, movement only occurs through an external agent acting on their matter.

Similar to Plato, Aristotle also had followers, with the most prominent figure in medieval scholastic philosophy (476-1453) being Thomas Aquinas. Aquinas advocated two ways of acquiring knowledge: Discovery, when reason arrives at knowledge it did not possess, and Teaching, which occurs with the help of an intermediary.

The end of the Middle Ages was a period of effervescence for knowledge, marked by the foundational principles of Rousseau⁸. In terms of education, Rousseau advocated that humans were inherently good, attributing the origin of evil to civilization. According to the philosopher, education should cater to natural interests rather than imposing rules. Reflecting Enlightenment ideals, Rousseau believed that society was to blame for humanity adopting a corrupt stance (Hauptli, 2016).

One aspect of natural education involved steering away from an intellectualized education based on formal teaching. Man was not solely constituted by intellectual knowledge; there existed an identity grounded in primitive dispositions, sustained by the senses, emotions, and constructed feelings (Klein, 2019).

Based on this line of thought, questions were raised about the education provided in educational institutions, contributing to the formation of an empty and selfish individual. In this sense, Rousseau did not view these schools as public institutions.

I do not take into account the education of society either because this education, tending towards two contrary ends, misses both targets: it only serves to make two-faced men, always appearing to subordinate everything to others and subordinating nothing but themselves. Now, these common demonstrations deceive no one. They are wasted efforts (Rousseau, 1973, p. 14).

⁵ Considered the father of modern philosophy, Descartes (1596-1650) laid the foundations of philosophical speculation for at least three centuries. He started from the premise that the only certainty is one's own existence, a belief that led him to coin the maxim *cogito ergo sum*, which means, I think, therefore I am (Harwood, 2013).

⁶ Important theoretical-practical aspect of Didactics and, consequently, of Western Pedagogy.

⁷ Scientist, astronomer, and political theorist, in addition to being a philosopher, Aristotle (384 BC-322 BC) believed that everything is directed towards a final purpose.

⁸ Jean-Jacques Rousseau was a philosopher born in the year 1712 in the city of Geneva, Switzerland. Despite being born in a rural and conservative society like Geneva, his ideas brought modern reflections to the time in terms of politics and education, especially when compared to those advocated by the two main groups of the time, namely, the supporters of monarchy and the Enlightenment thinkers (SIMPSON, 2009).

During the same period, Pestalozzi⁹ appeared, among other things, affection against the rigidity of traditional pedagogy, exerting a significant influence on educational thought by advocating for public education. The educator democratized education, seeking to demonstrate that every child had the right to full access to knowledge to develop their abilities, which he referred to as "powers given by God" (Sales, 2019, p.55).

Based on some theories presented in the educational context, we observe that they become instruments for analyzing educational practices, legitimizing models of schools and societies with the purpose of social balance and overcoming phenomena that affect certain segments of society. It is important to note that educational theories have this purpose, but they do not always materialize, giving rise to other theories in the field of education.

4. The Involvement of Educational Theories with Teacher Training

Currently, we face a significant challenge in contemplating the formation of educators based on educational theories. Throughout history, this formation has undergone various changes influenced by social, economic, political, and religious factors. These changes contribute to the development of diverse theories, serving as inspiration for the pedagogical practices of teachers, who, in turn, inspire new theories.

Often, teachers may not explicitly articulate which educational theory is influencing their pedagogical practice, but it is evident that, through their "way of teaching," a particular concept of learning aligns with theoretical aspects. This presence is observed in how educators set goals and objectives, employing specific methods developed in harmony with their peers. As Freire aptly notes, "People educate themselves in communion, mediated by the world" (Rodrigues et al., 2022; Santos et al., 2022).

Considering this, it becomes apparent that various pedagogical actions align with a particular educational theory, aiming to legitimize a societal model. According to Suchodolski, one of the earliest pedagogical theories is essentialism, which aligns with classical Greek idealism. One of the initial thinkers who addressed this was Plato, conceptualizing reality in a dualistic manner — a real world referred to as the world of shadows and an ideal world called the world of light, or wisdom. According to Suchodolsk:

PLATO distinguished within man himself what belongs to this world of shadows – the body, desire, the senses, etc. – and what belongs to the magnificent world of ideas: the spirit in its thinking form. These distinctions formed the classical motif that led the pedagogy of essence to neglect everything empirical in man and around man and to conceive education as measures to develop in man everything that implies his participation in ideal reality [...] (Suchodolski, 2000, p. 15-16).

It is possible to perceive that in Plato's conception, the essence is found in the world of light and not in the world of shadows. Therefore, all human beings in the world of shadows require education, and through pedagogical practice, individuals would seek perfection.

Around the 18th century, Rousseau began to advocate for an education based on existence, opposing Plato's proposal of the world of ideas. Plato did not see the student as they were but rather as what they should become. Rousseau introduced the pedagogy of existence, where the student is viewed as the protagonist. In this perspective, the teacher's practice considers the student not as a passive being but as an individual who also contributes to the learning process in education (Suchodolski, 2000; Nascimento et al., 2020).

⁹ Johann Heinrich Pestalozzi (1746-1827) was a great educator who, throughout his life, sought to develop pedagogical methods to assist children's learning and to emphasize the value of the human being. Considered by many as one of the greatest philosophers of humanity, Johann Heinrich argued that child development should occur spontaneously, with adults playing the role of satisfying or supporting natural curiosity. In Pestalozzi's educational philosophy, the purpose was to cultivate the mind, feelings, and character. His contributions to education are highlighted by the Integral School and inclusive education as some of his significant achievements (Klein, 2019).

Thus, we perceive the assertion that theories always seek to surpass each other or complement each other harmoniously, existing in the pursuit of solutions to problems and situations experienced by humanity. Based on this discussion of competing or complementary theories, Demerval Saviani in his work "Pedagogia Histórico-Crítica" (2012) draws an analogy between the pedagogy of essence and existence with the purpose of presenting a new idea that overcomes the fragility of both.

In this sense, Saviani (1999) presents three aspects in his work "Escola e Democracia" ("School and Democracy"): the first discusses the pedagogy of essence, which marks the essential equality among people, followed by the scientific aspects of the traditional method. Finally, the philosopher presents the third aspect, stating that the more democracy was talked about within the school, the less democratic the school was, and the less democracy was discussed, the more the school demonstrated democratic actions.

Based on the theses presented above, we can perceive that the philosopher of education envisioned something that would overcome the existing dichotomy, which underlies critical and dialectical pedagogy. Saviani's proposal does not disregard everything present in essentialist pedagogy nor in existentialist pedagogy. Regarding this, he considers discipline as something necessary for the development of the teacher's pedagogical practice. Discipline is seen as an indispensable stance for the development of activities, avoiding extremism but adopting an authentic approach, coordinated by authority and authenticity aligned with process development (Pereira; Cerda, 2018).

He also deems the environment in which the student is immersed as important, understanding that reality is the starting point for understanding the world. Indeed, through praxis as an educational approach, the goal is to transform reality while considering the protagonism of the entire school community. In other words, "problem-posing education places, from the outset, the demand for overcoming the contradiction between educators and students" (Freire, 2011, p.94).

Therefore, it is possible to perceive that the teacher's practice based on continuous education is part of a historical period where theories are constructed by various hands, sometimes opposing and sometimes complementing each other. Nevertheless, the overarching goals remain the contribution and promotion of education that is meaningful for human beings.

5. Educational Research as a Perspective for Continued Training for Teachers

The history narrates the trajectory of various characters through time, in specific spaces of the reality of each era. Around the last twenty-five years of the 20th century, Marxism influenced to such an extent that sociology moved away from substantive issues to become a discourse about discourse or a theory of the foundations of theory. It is at this moment that several methodological approaches begin, one of them being the treatment given to the modern discussion about rationalism and empiricism (Haguette, 2013).

Certainly, theoretical educational positions interfere with academic training, and the production of scientific knowledge is linked to research, where it is only possible to research if we study existing knowledge. If we observe, whenever we are in the field of epistemology, we, in a way, involve the philosophy of scientific knowledge.

Thus, to think about teacher training linked to educational research, it is important to refer to dialectics, which dialogues between different points of view on the same 'object,' seeking to establish the truth through argumentation, without losing sight that everything is in motion. This idea of movement in philosophy begins to be discussed in ancient Greece by the philosopher Heraclitus when he wrote the book *On Nature*. The philosopher reflected on the existence of things, stating that movement and conflict not only existed but constituted the essence of their existence (Martins, 2007).

Therefore, we can say that this idea of movement is characteristic of dialectics, seeking to understand the 'object.' Over time, the philosopher Hegel (1770 – 1831) brings the concept of dialectics, which consists of a spiral process about

knowledge, starting from a basic idea called a thesis, contradicted by another idea called an antithesis and reaching a conclusion called a synthesis.

Next, Karl Marx (1818-1883) and Friedrich Engels (1820-1899) continued this thought in the wake of Hegel's dialectical thinking, but now breaking with Hegelian idealism and developing the foundations of what would become communist thought, consolidated in historical materialism. For Marx, "the mode of production of material life conditions the general process of social, political, and spiritual life. It is not the consciousness of men that determines their being, but, on the contrary, it is their social being that determines their consciousness" (1999, p.52).

According to Marx, man is shaped by the society in which he lives, as his formation occurs in the relationship between his peers together with nature. Thus, we can perceive that the knowledge acquired by man is defined by the real conditions of his life. In other words, it is not human thought based on consciousness that defines history, but the conditions of life that produce "conscious" ideas. Man constructs his history, but he does not construct it by preferences; there is an imposition that often does not give him the conditions of choice but rather of obedience.

On the other hand, we have Correia et al., (2021), positivism, which aims to organize experimental sciences, considering them the model par excellence of human knowledge, to the detriment of metaphysical or theological speculations. That is, he seeks to quantify and measure the object. This perspective that aims for objectivity and neutrality was already sought in the modern philosophies of empiricism (Bacon) and rationalism (Descartes).

Auguste Comte is the key figure who initially presents the philosophy called positivism, which has as its main characteristic the idea that we should primarily think about science. In other words, for positivism, we must be rational before anything else, believing first in science. In this positive state, we do not explain phenomena solely by the principle of God, but through a common scientific and methodological relationship. The positivist thinker believed that this knowledge applied to society could explain all the laws governing the social world, and it would be possible to foresee and address all social problems affecting society, just as one treats an illness in the body.

Based on Comte's observations, the positive state is the possibility of creating a method to study society. It is with this condition that humanity acquires the ability to know the real. To affirm positivism, he recognizes that,

[...] from now on, as a fundamental rule, any proposition that cannot be strictly reduced to the simple statement of a particular or general fact cannot offer any real and intelligible meaning. The fundamental revolution that characterizes the virility of our intelligence essentially consists of replacing everywhere the inaccessible determination of proper causes with the simple investigation of laws, that is, constant relations that exist between the observed phenomena (Comte, 1973, p. 55).

It is important to understand that the main foundations for the construction of positivist knowledge were laid by Émile Durkheim, a sociologist who sought to understand how society was organized in his time. Durkheim (1973, p. 394) in the work "The Rules of Sociological Method," presents the definition of 'social fact' as being "any way of acting, fixed or not, capable of exerting external coercion on the individual; or, that is general in the set of a given society having, at the same time, its own existence, independent of its individual manifestations."

From this positivist perspective, it is possible to have a conceptual clarity to understand the conduct of research and the production of knowledge. In other words, the method consists of studying the object as a 'thing,' in isolation from its context to be measured and quantified.

Opposing this positivist method, around the 19th century, the idea of phenomenological thinking emerges, with a stance of being present and experiencing to interpret and understand phenomena from the perspective of subjects at a given moment. Edmund Husserl tries to make philosophical study a more rigorous science with greater precision within

philosophical thought through phenomenology. Husserl proposes a way of doing philosophy that is not solely theoretical and/or abstract, where the notion of knowledge begins from the experience of existing things, facts, and phenomena that present themselves to consciousness. The phenomenon is "everything that is experience, in the unity of the experience of a self" (Husserl, 1996, p. 207).

The phenomenologist sought to carry out his task based on the notion of epoché, which means 'suspension' and/or 'immersion' in the perspective of working with a philosophy centered on the individual as he sees the world. Through epoché, he approaches the research object without stating what it is but seeks to understand it for what it manifests.

Based on these epistemological foundations throughout history, various different importance must be highlighted. Philosophical sciences deal with thinking about themselves to redirect their doing, their practice to dictate new rules about scientific production, its quality, its validity. So, there is no teacher without an underlying epistemology, without an epistemological basis that provides support for their pedagogical work.

6. Teacher Training: From "Understanding" to Pedagogical Practice

Today, we live in a context marked by discussions about teacher training, whether initial or ongoing, emphasizing the importance attributed to the process. It is during this training that the teacher comprehends their role as an educator, acquiring theoretical knowledge to enrich their level of understanding. Consequently, they construct their own knowledge to play a leading role in their professional practice in education (Hauschild et al., 2017).

It is in the execution of their profession that educators should rely on educational praxis,¹⁰ which contributes to breaking with traditional archetypes and seeks to develop a reflective and critical approach. The aim is to go beyond mere teaching and engage in meaningful learning. According to Lima "[...] The teaching task is to set these knowledge in motion and, in this way, construct and reconstruct knowledge by teaching and learning from life, books, the institution, work, people, the courses attended, and one's own history".

Teacher training goes beyond the process that begins in academic education through undergraduate courses, continuing with training and improvement known as continuing education. It begins to develop in childhood during the learning process, possibly in school settings as students. Observing the didactics of educators, we understand that there are admirable teachers and teachers stigmatized by the term 'bad,' which inspires the adoption of a particular practice throughout their lives based on social conditions and occupations.

However, the teacher develops their teaching role as they study, reflect on practice, and organize knowledge and experiences through pedagogical classroom experience. This process called 'organizing knowledge' is based on various theories presented in the educational field,¹¹ which serve as inspiration for the development of practices to be applied in the school environment, notably a field of experimentation for the development of new theories.

This dialogue between theory and practice has been discussed for years. Around the 1960s, Paulo Freire, in his reflections in the work 'Pedagogy of the Oppressed,' begins to highlight some concerns about education, proposing the humanization of relationships and the liberation of humanity. In Freire's conception, theory and practice are inseparable,

¹⁰ For Freire, praxis means that, at the same time, the subject acts/reflects, and while reflecting, acts. Alternatively, if we wish, the subject of the theory goes into practice, and from their practice, arrives at a new theory. Thus, theory and practice are intertwined, perpetuating themselves in praxis.

¹¹ The genesis of theories begins in the historiography of the philosophical and epistemic matrices of Brazilian pedagogical thought, spanning the 19th century: the century of pedagogy; the 20th century until the 1950s, discussing "New Schools" and the ideology of education; the second half of the 20th century: education sciences and the global commitment to pedagogy. In the political rupture for socioeconomic continuity, education starts to discuss technicist pedagogy, analytical conception, and critical-reproductive vision; counter-hegemonic essays: critical pedagogies seeking to (re)orient educational practice; neoproductivism and its variants neoschoolovism, neoconstructivism, and neotechnicism, modern education, contemporary education. With the birth of education sciences, the discussion progresses through behaviorism and the scientific approach to teaching; cognitivism and its pedagogical implications; constructivism in education; socioconstructivism in education; contemporary theories of education; nature and definition and modern science to the new common sense (Camilo; Muller, 2018).

creating through their relationship the possibility for individuals to reflect on action, providing liberating education. 'Praxis, however, is the reflection and action of men on the world to transform it. Without it, the overcoming of the oppressor-oppressed contradiction is impossible' (Freire, 1987, p. 38).

It is evident that today there is much discussion about the interaction between theory and practice. However, despite various advances focused on this 'object,' it is clear that reality still does not meet the need posed by Freire when he mentions praxis as the path to liberating education. According to Pinto et al., (2022), 'resistance to the conception and assimilation of education as praxis is justified by the implications of technical rationality, which has become a cultural heritage embedded in the human mind and, consequently, in educational institutions.'

Therefore, it is necessary to think and promote a possible change in behavior throughout the school community, as well as in the bodies that regulate educational institutions and the teaching profession. The discussion on this topic now requires a new conception of training, whether initial or continuous. The need for a professional with critical thinking, willing and prepared for constant changes in their social role, is increasing in today's times. Traditional behaviors of knowledge transmission alone do not meet the needs in school spaces. A teacher as a mediator, transformer, and an active participant dealing with problem-solving situations has presented better outcomes, both in student learning and in their professional and personal behavior.

It is important to emphasize that this education professional has not ceased to be human and has feelings of joy, potential, capabilities, but also weaknesses, faults, and inexperience. This should be remembered because, along with all the capacity demanded of the teacher, there are social outcomes in the school community that interfere with their performance, often hindering their role as a mediator, transformer, and active participant. This emphasis is made because most of the time, when thinking about changes related to pedagogical practices, the focus is placed on the teacher. While thinking about their preparation is important, one should not forget their operating space.

Based on observations about the pedagogical practices of educators, we return to the discussion about the relationship between theory and practice, now linking it to the teaching life. We emphasize that education professionals should, based on theory, enrich various levels of knowledge to develop practical actions that enhance education. Therefore, it is observed that new theories are constructed from the experiences of teachers, giving rise to new pedagogical practices.

7. Final Considerations

Continuing education for basic education teachers has become more prominent in discussions on educational public policies. In recent years, there has been greater social and governmental concern on the topic, particularly regarding initial and ongoing teacher training. Based on the analyzed authors, it is evident that education undergoes various changes throughout history, and these changes have a direct relationship with the theories proposed for educational spaces. It is not merely about depicting or reproducing society through education but projecting a specific societal model.

At this moment, it is apparent that educational practices are grounded in teacher training through educational research, which, in turn, serves as a source for a well-thought-out, spoken, and experienced theory. As a commitment, educational pedagogical practice faces the challenge of meeting various demands from historical, economic, political, cultural, and social contexts. Hence, the connection between theory and practice is noticeable, with one not dictating the other. Theory and practice are involved in a circular process, giving rise to new educational perspectives.

The exercise of teaching as a transformative action in society is renewed through ongoing training, a product of educational theories constructed and refined in both theory and practice. It necessarily seeks the development of critical, social, and human awareness based on a particular societal model.

Given the challenges presented over the years regarding teacher training, there is a need to explore alternatives that can continually enhance educator qualifications. With a panoramic view of some of the main epistemologies presented in this article, we observe that research based on educational theories contributes to teacher training. Thus, it is relevant to discuss the initial and ongoing teacher training processes based on scientific research in the educational field, always attentive to the dialectical relationship between theory and the educators' actions, to better understand this space of being both a teacher and a learner.

References

- Agostinho, S. (1998). *A Trindade. Patrística-A Trindade. Vol.7*. Editora Paulus.
- Agostinho, S. (1999). *A Cidade De Deus: Contra Os Pagãos. Parte 1 (Livros 1-10)*. Vozes.
- Agostinho, S. (1999). *Confissões*. Nova Cultura.
- Agostinho, S. (2001). *Solilóquios*. Editora Paulus.
- Batista, D. E. (2017). A didática de comênio entre o método de ensino e a viva voz do professor. *Pro-Posições*, 28, 256-276.
- Boente, A., & Braga, G. P. *Manual para Elaboração do Trabalho de Conclusão de Curso*. FAETEC, 2004.
- Comte, A. (1973). *Discurso Sobre O Espírito Positivo*. Globo; Editora da Universidade de São Paulo.
- Correia, D. B., et al. (2021). As manifestações da Corrente Positivista na Educação Científica. *Research, Society and Development*, 10(2), e42610212708-e42610212708.
- Descartes, R. (1983). *Discurso Do Método: Para Bem Conduzir A Própria Razão E Procurar A Verdade Nas Ciências*. Abril Cultural.
- Durkheim, É. (1973). *As Regras Do Método Sociológico*. Abril.
- Freire, P. (1987). *Pedagogia Do Oprimido*. (17a ed.) Paz e Terra.
- Freire, P. (1996). *Pedagogia Da Autonomia: Saberes Necessários À Prática Educativa*. Editora Paz E Terra.
- Freire, P. (2011). *Pedagogia Do Oprimido*. (50a ed.), Editora Paz E Terra.
- Freitas, M. L. D. (2019). *Autonomia do Professor Formador: Formação Continuada de Professores e Prática Docente*. Dissertação de Mestrado, Universidade Federal Do Ceará.
- Galianu, C. V. A., & Louzano, P. (2014). Michael Young e o campo do currículo: da ênfase no "conhecimento dos poderosos" à defesa do "conhecimento poderoso." *Educação e Pesquisa (Usp. Impresso)*, 40, 1109-1124.
- Giroux, H. (1986). *Teoria crítica e resistência em educação: para além das teorias de reprodução*. Vozes, 548-249.
- Guedes, E. (2011). *Formação continuada para professores de educação infantil: concepções de profissionais da rede municipal de ensino de fortaleza*. Dissertação de Mestrado, Universidade Federal do Ceará.
- Lima, E. De S. (2008). *A Formação continuada de professores no semi-árido: valorizando experiências, reconstruindo valores e tecendo sonhos*. Dissertação de Mestrado, Universidade Federal do Piauí.
- Martins, M. V. S. (2007). *O pensamento de heráclito: uma aproximação com o pensamento de parmênides*. Dissertação de mestrado em filosofia, Universidade de Brasília.
- Marx, K. (1989). *Manuscritos econômicos filosóficos e outros textos escolhidos*. Edições 70.
- Marx, K. (1999). *Para a crítica da economia política*. Nova cultural. (Os Pensadores).
- Nascimento, M. C., & Gomes, G. R. R. (2020). Teaching continuing training for the use of ict in the teaching and learning process. *Research, Society And Development*, 9(2), 1-18.
- Pereira, V. A., & Cerda, C. C. D. (2018). A importância das teorias da educação na formação do educador: reflexões Brasil - Nicarágua. *Momento: Diálogos Em Educação*, 27, 353-368.
- Pinto, A. Q., & de Oliveira, V. J. M. (2022). Formação docente e currículo: práxis de um estudo no/do/com o cotidiano escolar. *Research, Society and Development*, 11(17), e253111739181-e253111739181.
- Rodrigues, A., & Esteves, M. (1993). *A análise de necessidade na formação de professores*. Porto Editora.

Rodrigues, L. C., & Silva, A. C. (2022). Teorias implícitas de aprendizagem dos professores do ensino fundamental: Um estudo de caso em escolas públicas municipais. *Research, Society And Development*, 11(7), E577305415.

Santos, D. B., & Santos, W. L. (2022). A dialogicidade como pressuposto para a construção do conhecimento na educação de jovens e adultos: reflexões a partir de Paulo Freire. *Research, Society And Development*, 11(11), E630514208.

Schnetzler, R. P., & Rosa, M. I. F. P. S. (2003). A investigação-ação na formação continuada de professores de ciências. *Ciência e Educação* (Unesp. Impresso), 9(1), 27-39.

Simpson, M. (2009). *Compreender Rousseau*. Vozes.

Suchodolski, B. (2000). *A pedagogia e as grandes correntes filosóficas: a pedagogia da essência e a pedagogia da existência*. (5a ed.), Livros Horizonte.

Young, M. F. D. (2014). Teoria do currículo: o que é e por que é importante. *Cadernos de Pesquisa*, 44(151), 190-202.