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PEDAGOGICAL TRENDS: ORGANIZATION OF TEACHING WORK

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Abstract: This article examines how pedagogical trends affect the way teachers organize and develop their work. It emphasizes the importance of a solid theoretical basis for conscious educational practices. This study takes into consideration, not only the foundations provided by theorists such as Luckesi (1996), Libâneo (1985), Aranha (1997) and Saviani (2000, 2003, 2010, 2011), but also the possible effects of emerging technologies, such as Artificial Intelligence (AI), on pedagogical practices. The research indicates that teachers must internalize and confront these trends with their practices. This leads to a critical reflection that now also considers the use of AI tools to improve and transform education. This approach not only strengthens the application of educational theories, but also allows the adoption of innovative methods, which can change the way schools are used today.

Keywords: Pedagogical trends, Educational practices, Education theory, Artificial intelligence in education, Educational transformation.

INTRODUCTION

Teachers base their educational strategies on pedagogical trends that reflect the modern understanding of the educational process. Theorists such as Luckesi, Libâneo, Aranha and Saviani have studied these trends in depth, which are deeply rooted in Brazilian education. These scholars have focused on discovering how these trends could contribute to the advancement of education, direct the work of teachers and seek improvements in the quality of teaching. In order for educators to be able to critically analyze and evaluate their pedagogical strategies, it is necessary to understand these pedagogical categories. Liberal pedagogy and progressive pedagogy are the two major factions of education that have existed throughout history.

Saviani says that liberal pedagogies promote social cohesion and integration. On the other hand, progressive pedagogies are considered critical, as they focus on analyzing the socioeconomic structures that shape education and highlight social reproduction as a central aspect of education. We have seen the emergence of new trends in recent years that have rapidly incorporated new technologies and methodologies into education. Technologies such as augmented reality, virtual reality, and mixed reality have improved the learning experience. In addition, the application of AI in education has made administrative tasks simpler and learning more personalized for students. This results in more effective education that is tailored to the needs of students.

For example, microschools offer a more personalized and intimate teaching approach, which allows students to directly influence the curriculum and adapt learning to their individual styles. The hybrid learning model, which combines face-to-face and online interactions, also offers unprecedented flexibility and adaptability.

By emphasizing the transformative role of the school, teacher, and student in the contemporary educational context, this article aims to improve the understanding of these pedagogical trends, from the logical theoretical foundations to the most recent advances. Literature research continues to be used, but the latest advances in pedagogy and educational technology have enriched the method.

METHODOLOGY

Based on the principles of Lüdke and André (1986), this article employs a qualitative method of bibliographic research. This strategy was chosen to enhance the researcher's perspective, as it allows for a critical and indepth analysis of the pedagogical theories that shape modern educational methods. The methodology allows for a dynamic interaction with the theoretical material, which facilitates an in-depth questioning of the changes and applications of pedagogical trends in the Brazilian educational system.

The works of Luckesi, Libâneo, Aranha and Saviani were chosen because they are important and have greatly contributed to understanding pedagogical trends in Brazilian education. These authors were selected for their different approaches to liberal and progressive pedagogies. They provide a solid theoretical basis for exploring the relationship between classical pedagogical theory and more recent educational developments. Each work was reviewed thoroughly. This included a description of important concepts, a synthesis of main arguments and a critical analysis of their consequences for modern education. As a result of this process, the collected information was organized in a way that facilitates comparative analysis between existing theories and emerging practices identified from 2021 to 2024.

The results are presented through a comprehensive discussion that not only highlights the fundamental theories of the selected authors, but also examines how these theories relate to new methodological and technological trends in education, such as the use of artificial intelligence and realized reality. The pedagogical foundations are theoretically connected to the practical changes observed in recent years.

The selection of qualitative bibliographic research reflects the need to understand the complexities of pedagogical trends and how they have changed over time. For this study, the qualitative approach is ideal because it emphasizes the interpretation of texts in their historical and current context, offering a richer understanding of the changing educational dynamics.

RESULTS AND DISCUSSION

LIBERAL AND TRADITIONAL PEDAGOGY: HOW ARTIFICIAL INTELLIGENCE AFFECTS TEACHERS' WORK

AI has the potential to dramatically change the role of teachers in traditional teachercentered pedagogy. In their work on artificial intelligence in education, Holmes, Bialik, and Fadel (2019) argue that technology can help teachers spend more time interacting directly with students and personalizing instruction. A significant departure from the traditional lecture-based teaching model is that it enhances teachers' ability to meet students' specific needs.

One of the most important promises of AI for education is personalization. According to Zhu and Liu (2020), AI-powered intelligent tutoring systems can provide adaptive learning by tailoring content to each student's learning needs. This contrasts with the "one-size-fits-all" approach of traditional pedagogy, which offers the same content to all students regardless of their particular abilities or interests.

Luckin et al. (2016) argue that the inclusion of AI in the educational process makes teaching methods more interactive and engaging. For example, it is difficult for conventional classrooms with many students to have intelligent tutoring systems not only adapt content but also provide immediate and personalized feedback to students.

TRADITIONAL PEDAGOGY

In traditional pedagogy, teaching work is organized in the form of classes. Each class has a teacher who teaches the didactic content to the students, who follow along attentively, and implements the activities that the students must carry out in a disciplined manner. The teacher is the center of the educational process. The class is expository and does not require the use of more complex technological materials. The teacher concentrates coercive authority and erudite knowledge. He or she is responsible for the entire educational process.

The pedagogical action is based on the relationship between teacher and student, without the interference of technological mediations. It can be said that the teacher participated in the entire process of producing the class, from the moment of production to the execution. Saviani (2000, p. 06) emphasizes that the role of the school is: "to spread instruction, to transmit the knowledge accumulated by humanity and logically systematized. The school teacher will be the architect of this great work. The school is organized, therefore, as an agency centered on the teacher, who transmits, according to a logical gradation, the cultural heritage to the students. It is up to the students to assimilate the knowledge that is transmitted to them." Libâneo (1985, p. 24) and Luckesi (1996, p. 56-57) corroborate this by saying that classes are based on the verbal presentation of the content, in which teachers must observe the following steps: a) preparing the student (defining the work, recalling previous material, arousing interest); b) presentation (highlighting key points, demonstration); c) association (combining new knowledge with that already known by comparison and abstraction); d) generalization (from the particular aspects one arrives at the general concept, this is the systematized presentation); e) application (explanation of additional facts and/or exercise resolutions).

The emphasis on exercises, repetition of concepts or formulas, and memorization aims to discipline the mind and form habits. The content aims at acquiring knowledge, emphasizing the intellectual effort of assimilating knowledge and social values accumulated by generations and taught to the student as truths. They are not interconnected with the student's experience and social The methodology values realities. the expository class, with the teacher's mastery, highlighting the activities carried out in the classroom. According to Aranha (1997, p. 158), "in which consolidation exercises are carried out, such as repeated reading and copying, subject to rigid schedules and curricula, students are considered a single and homogeneous block, with no concern for individual differences." In this pedagogical trend, the main condition of teaching work was the erudite mastery of the knowledge that the teacher possesses and controls. This traditional pedagogical relationship is characterized by the lack of division of labor, and contact between the teacher and the student is essential.

The introduction of Artificial Intelligence (AI) promises major changes to traditional pedagogy, which is characterized by teachercentered teaching and lectures. As Holmes, Bialik, and Fadel (2019) suggest, AI can take over administrative and repetitive tasks, allowing educators to focus on individual student needs. This challenges the traditional model, where personalization is often limited by the logistics of large classrooms and uniform teaching techniques. Furthermore, according to Zhu and Liu (2020), intelligent tutoring systems are able to provide students with immediate and personalized feedback, which is uncommon in traditional educational settings. In addition to increasing student engagement, this also helps build a deeper and more retained understanding of course content. By using AI to reimagine traditional pedagogy, we can see how teaching can be done that maintains the structure and discipline valued in this model, but also allows for the flexibility and personalized support that technology offers. This integration opens a new era of traditional pedagogy in which technology does not serve as a substitute for

the teacher, but rather complements their skills, improving education for both students and educators.

The use of AI in conventional education can also democratize high-quality education. For schools facing challenges such as limited resources or teacher shortages, AI-based tools can provide consistent, high-quality teaching resources. Watters (2021) demonstrates how adaptive learning platforms can personalize education in disadvantaged settings, ensuring that all students receive support according to their specific needs.

There are ethical issues and concerns when AI is embedded in traditional pedagogy. Privacy, consent, and the possibility of algorithmic bias must be taken into consideration, when using AI in education. To ensure that the benefits of AI are maximized without compromising the rights and integrity of students, AI systems must be designed and developed ethically, transparently, and under the supervision of trained educators (Williamson 2019).

Finally, traditional pedagogy prioritizes teacher control and authority. However, the incorporation of AI offers a new paradigm that can complement and enhance this model. This means compensating the role of the teacher not as the sole owner of knowledge, but as a facilitator of technology-enriched learning experiences that allow students to receive more personalized lessons that are adaptable to their needs.

RENEWED LIBERAL TENDENCY

The renewed liberal pedagogy is also known as New Pedagogy, New Schoolism or New School. The need to democratize society led to the renewed liberal pedagogy occurring in parallel with traditional pedagogy, aiming at urgent educational reforms, provoking in society the need for a national conscience. The role of the school is: "to adapt individual needs to the social environment and, to this end, it must be organized in such a way as to reflect life as much as possible. Every being has within itself mechanisms for progressive adaptation to the environment and a consequent integration of these forms of adaptation in behavior. Such integration occurs through experiences that must satisfy, at the same time, the interests of the student and social demands. The school's role is to provide the experiences that allow the student to educate himself, in an active process of construction and reconstruction of the object, in an interaction between the individual's cognitive structures and the structures of the environment." (LUCKESI, 1996, p. 58; LIBÂNEO, 1985, p. 25)

This trend advocates defining culture as the development of individual skills, education as an internal, not external, process, based on the individual needs necessary for adaptation to the environment. "The renewed school proposes a teaching that values self-education (the student as the subject of knowledge), direct experience of the environment through activity; a teaching centered on the student and the group" (LIBÂNEO, 1985, p. 22).

In the renewed liberal pedagogy, the organization of teaching work underwent a change in which students were no longer separated into classes, in which the teacher dominated the major areas of knowledge, and began to be grouped according to areas of interest arising from their free activity. The teacher's role is to be a stimulator and guide in the teaching-learning process. It is up to the student to take the initiative. Learning must occur spontaneously, through a stimulating environment and based on the lively interaction that is established between students and between them and the teacher.

The teacher works with small groups of students, in a way that does not harm interpersonal relationships, using tools such as rich teaching materials, a library, etc. Changing the school space from a dark, disciplined, silent and opaque-walled environment to a cheerful, busy, noisy and colorful environment. According to Aranha (1997, p.168): "Programs and schedules become flexible in order to meet individual rhythms. Since it is important to move from the concrete to the abstract, research and experiments are encouraged. Favoring the pedagogy of action means equipping the school with laboratories, workshops, vegetable gardens and even printing presses, according to the predominant methodology. Games are also not opposed to work; rather, they are attractive facilitators of learning."

General knowledge content is taught by the teacher, since acquisition must come from the student's own experience. In this trend, the process of knowledge is more important than the product; the content that is the object of learning needs to be understood and not memorized. Aranha (1997, p. 168) highlights that in order to overcome "the narrow intellectualism of the traditional school, the new school has as its principle learning by doing. The object of education is the integral man, made up not only of reason, but of feelings, emotions and action."

Renewed Liberal Pedagogy, with its focus on adapting to the environment and developing individual skills, finds AI as a powerful tool to increase its interactivity and personalization capacity. AI-powered systems can analyze and adapt teaching materials in real time to meet the needs of each student, facilitating more participatory and effective learning. The use of this technology can effectively transform the educational environment, making it more dynamic and adaptable to the unique variables of students.

Enabling students to explore and interact directly with learning materials is the focus of Renewed Liberal Pedagogy. AI-based learning platforms can provide simulated environments and augmented realities that enable immersive educational experiences. For example, AI simulations that recreate historical events or scientific experiments can help people learn more deeply and overcome traditional intellectualism, supporting the principle of "learning by doing."

Group dynamics in schools is another potential use of AI. Intelligent tools, encouragement, productive outreach, organizing groups according to students' abilities and interests, and even mediating debates. This allows all students to actively participate and their contributions to be considered in the learning process. As suggested by Aranha (1997), this technology can help maintain a lively, vibrant, and colorful learning environment. Personalization and individual development, which are fundamental to a renewed liberal pedagogy, are strengthened by the incorporation of AI. Furthermore, it expands its capabilities by enabling new forms of interaction and participation, which are essential for modern and effective education. truly student-centered and adaptive А education that meets the needs and challenges of the 21st century can be made a reality with the help of artificial intelligence.

RENEWED NON-DIRECTIVE LIBERAL PEDAGOGY

In this trend, the role of the school is to be more concerned with the psychological difficulties of students than with pedagogical content, which is considered secondary. The important thing is to develop students' attitudes. It seeks to create an environment that fosters the transformation of the individual to adapt to the environment. (LUCKESI, 1996; LIBÂNEO, 1985).

The content emphasizes the processes of developing relationships and communication, encouraging the student to seek knowledge. The teacher's role is to facilitate learning, helping the student to organize himself. Despite the differences between the different proposals, Aranha (1997, p. 182) states that "non-directivity predominates, whereby the teacher does not direct, but creates the conditions for the child's action. With this, the aim is to avoid any and all hierarchy that facilitates the exercise of power." Nondirective pedagogy supports a student-centered education that seeks to shape the individual's personality through meaningful experiences that allow them to develop characteristics that are specific to their nature.

AI can be a useful tool in the Renewed Liberal Non-Directive Pedagogy, which emphasizes adaptation and the formation of individual attitudes. Data analysis can help AI-powered systems track patterns of behavior or signs of emotional difficulties. Educators can act more quickly on this data, creating a learning environment that truly supports the student's holistic development.

In addition, AI platforms have the potential to enable truly personalized learning that adapts to students' academic and psychological levels. For example, intelligent educational software has the ability to adjust the challenges and pace of content according to the student's emotional state. This ensures that learning occurs in an environment that meets the student's emotional and psychological needs. The ability to dynamically change teaching methods and content can be vital to keeping students engaged and motivated.

Non-directive pedagogy can reach new heights in terms of tailoring education to better suit students' individual development by incorporating AI. Chatbots and virtual assistants, for example, can be programmed to help students learn on their own, providing subtle support and guidance when needed. These systems can foster self-exploration and self-determination, which are essential to this pedagogical approach. By incorporating AI into Non-Directive Renewed Liberal Pedagogy, educators can significantly enrich the educational experience, making it more adaptable and responsive to each student's individual complexities. In doing so, schools not only meet academic needs, but also become a place where emotional and psychological well-being are prioritized. This serves the fundamental goal of developing strong personalities who are adapted to social and emotional environments.

TECHNICIST TENDENCY

Technicist pedagogy emerged in the United States in the second half of the 20th century and arrived in Brazil between the 1960s and 1970s, inspired by behaviorist theories of learning, which argued that society must be shaped according to the industrial and technological demands of the time.

This pedagogy is in line with the capitalist model, forming part of its machinery and with the objective, within this system, of training "competent" individuals for the job market. The teacher is not valued, just as the student is not valued either, but rather technology, industry, and capital. This pedagogical tendency subordinate's education to society, with the function of preparing individuals for the job market. The school: "[...] functions as a modeler of human behavior, through specific techniques. School education is responsible for organizing the process of acquiring specific, useful and necessary skills, attitudes and knowledge so that individuals can interact with each other in the global social system. [...] The school thus acts to improve the current social order (the capitalist system), by directly linking itself to the production system; to this end, it employs the science of behavior change, that is, behavioral technology. Its immediate interest is to produce competent individuals for the job market, efficiently transmitting

precise, objective and rapid information." (LUCKESI, 1996, p. 61; LIBÂNEO, 1985, p.28-29).

It assumes of scientific neutrality and is driven by the principles of technical rationality, efficiency and productivity, aiming to organize teaching work in a similar way to what happened in factory work. It seeks to outline education in such a way as to achieve an organization based on technical rationality with minimal interference from subjectivity, so as not to jeopardize its efficiency. To this end, it is a priority to operationalize the goals and mechanize some aspects of the work process. The work process, then, is directed towards ensuring efficiency, repairing and correcting the teacher's mistakes and maximizing the results of his/her intervention. (SAVIANI, 2000).

While in the new pedagogy it is the teachers and students who decide whether or not to use certain means, as well as when and how they will do so, in the technicist pedagogy it is up to the process to define what teachers and students must do and, therefore, when and how they will do it. (SAVIANI, 2010a).

Aranha (1997) states that the purpose of a school structured based on the factory model is to change education to meet the demands of an industrial and technological society. Hence the need to prepare human resources, that is, qualified workers for the job market. The content to be transmitted is objective information that ensures the individual's qualification for work. The priority knowledge scientific knowledge, demanded is by modern technology. According to Aranha (1997, p. 175), the method used "to transmit knowledge is Taylorist, which assumes the division of tasks among the various teaching technicians who are responsible for the rational planning of educational work, with the teacher being responsible for implementing in the classroom what was

planned outside of it." For Saviani (2010a), the crisis of the capitalist system in the 1970s led to the restructuring of production processes, causing a revolution in the technical basis of production and triggering the replacement of the Fordist mode of production by the Toyotist mode of production. This reinforced the importance of school education in preparing the workforce to meet the demands of the production system. According to the author, we cannot escape neotechnicism, as a form of rationalization of the educational system; it is present in the process of organizing and operating schools through the introduction into the school context of the productiveindustrial management method called "Total Quality". According to Saviani (2010a), the concept of "total quality" is linked to the process of productive reconversion caused by the Toyotist production system when "[...] introducing, instead of large-scale serial production aimed at meeting the need for mass consumption, small-scale production aimed at meeting certain highly demanding market niches." (SAVIANI, 2010a, p.439). It was then with the "projection of Toyotism as a universal method for increasing capitalism on a global level" (SAVIANI, 2010a, p.440), in the 1990s, that attempts to put into practice the concept of "total quality" originating from the business system in schools emerged.

Education, under the umbrella of the "Total Quality" method, considers industries and companies as true customers of schools. Students are considered products that educational institutions offer to their customers and, in order for these products, in this case students, "[...] to be of high quality, the total quality method is used, which, with a view to customer satisfaction, engages all participants in the process in the task, combining their actions [...]" (SAVIANI, 2010a, p.440). In this context, the organization of teaching work can be compared to the Toyotism mode of production, as it is designed to train versatile and multifunctional workers with the ability to perform different functions simultaneously. In addition to versatile and multifunctional training, schools must strive to develop the concept of flexibility in workers in order to favor adaptation to changes in the world of work. According to the technological trend, technical rationality and behaviorist assumptions can be seen as a natural consequence of AI. AI focuses on preparing people to meet the needs of the job market in a competent and effective manner, in order to optimize processes and increase efficiency.

By making teaching methods more productive and efficient, AI can strengthen the technicist trend. For example, adaptive learning systems with AI can be programmed to improve the acquisition of specific skills and knowledge, ensuring that students achieve competencies quickly and efficiently. These systems have the ability to analyze student performance in real time and adjust content to maximize learning, following the technicist ideal of pragmatic and highly targeted education.

In addition, AI can be used to simulate real work environments so that students can apply or learn in the real world. This prepares them for the demands of the job market. This not only meets the technicist goal of producing "competent" individuals for industry and capital, but also modernizes the educational process by incorporating advanced technologies.

The incorporation of AI into technicist pedagogy must take into consideration, the morality of technology. To ensure the holistic development of students, AI must be used with caution to avoid perpetuating inequalities or completely replacing human interaction.

By incorporating AI into techno-pedagogy, educational institutions can modernize and improve their practices while aligning with the demands of an increasingly technological society. AI has the potential to change the way knowledge is transmitted, ensuring that education is not only effective, but also relevant and adapted to the future needs of students and the job market.

PEDAGOGICAL TRENDS: CRITICAL-REPRODUCTIVE THEORIES

PROGRESSIVE PEDAGOGY

Progressive pedagogies emerge in the search for new paths for a new conception of education. Aranha (1997) highlights that the commitment of progressive pedagogy is to establish the school as a place for the socialization of systematized knowledge, increasingly allowing the popular classes to have access to education. The use of Artificial Intelligence (AI) in progressive pedagogy can increase the reach and effectiveness, providing new ways to personalize and access education. For example, AI systems can be used to create learning platforms that adapt content to the individual needs of each student, taking into consideration, their socioeconomic context, learning style, and unique difficulties. This can help ensure that all students, regardless of their background, have the opportunity to learn and thrive in an educational environment that respects and meets their individual needs. In addition, AI can help form online learning communities so that students from various cultures can work and learn from each other. Platforms like these can overcome social and geographic barriers, increasing inclusion and access to high-quality education. At the same time, incorporating AI into progressive education presents challenges, particularly around equal access to technology and the need to ensure that these tools are used fairly and ethically. It is crucial that educators and policymakers are vigilant in ensuring that AI

technology is a tool for increasing equality rather than exacerbating existing disparities.

Therefore, with the help of advanced technologies like artificial intelligence, progressive pedagogy has the potential to transform education, becoming a true force for equality and social justice. By using AI judiciously, it is possible to establish an educational environment that not only teaches but also empowers all students to reach their full potential.

PROGRESSIVE LIBERATING TENDENCY

In the progressive liberating pedagogical trend, teaching work must focus on discussions of social and political issues and on concrete actions regarding the immediate social reality. The teacher must act as a coordinator of the educational process, organizing and participating together with the students. The role of the school: "It is not typical of liberating pedagogy to talk about school education, since its hallmark is 'non-formal' action. However, teachers and educators engaged in school education have been adopting assumptions of this pedagogy. Thus, when we talk about education in general, we say that it is an activity in which teachers and students, mediated by the reality that they apprehend and from which they extract the learning content, reach a level of awareness of this same reality, in order to act in it, in a sense of social transformation. [...] Liberating education concretely questions the reality of man's relationships with nature and with other men, aiming at a transformation." (LUCKESI, 1996, p. 64; LIBÂNEO, 1985, p. 33).

Teaching work is developed through problematizations extracted from the daily lives of students and the social realities they experience. It uses dialogue as a method in the teaching-learning process, the relationship occurs horizontally, in which teachers and students position themselves as subjects in the production of knowledge.

LIBERTARIAN PROGRESSIVE TENDENCY

This pedagogical trend is focused on supporting and encouraging students to participate in social groups and movements: unions, mothers' groups, community groups, residents' associations, etc.

Their actions go beyond the school walls and, at the same time, they work within the reality of society. The primary need is to make democracy a reality, through elections for councils, school management, student associations and other forms of participatory management. Luckesi (1996, p. 67) and Libâneo (1985, p. 36) confirm that in this trend the role of the school is to exercise: "a transformation in the personality of students in a libertarian and self-management sense. [...] the school will establish, based on group participation, institutional mechanisms of change (assemblies, councils, elections, meetings, associations, etc.) in such a way that the student, once working in external institutions, takes what he has learned there." In the development of teaching work, subjects are not imposed; what is relevant is the knowledge that results from the experiences lived in groups by students. The teacher has the role of guiding and catalyzing, he/she joins the students for a shared reflection.

AI can help support, enrich and expand education by promoting discussion on the social and political issues that are essential to this educational approach. AI has the potential to expand the reach of transformative education and improve the learning experience in several ways, such as:

• Social Data Analysis: AI can provide insights that can be used in classroom research by analyzing and understanding large sets of social, economic and environmental data. This allows teachers and students to investigate trends and patterns that are essential to understanding and acting on complex social issues

• AI-Assisted Debate Platforms: To ensure that all students have a voice and that research remains productive and inclusive, AI tools can be created to moderate and facilitate online debates. To help students better understand outreach, these platforms can provide additional resources or real-time data.

• Social Simulations: AI can be used to create simulations or games based on real-world scenarios, allowing students to experience the effects of various social or political actions in a controlled environment. This can help demonstrate complex social and political interactions in an immersive and practical way.

While the incorporation of AI offers great opportunities for liberatory progressive pedagogy, it also presents some challenges. Ethics related to data privacy and algorithmic thinking must be taken into consideration. Furthermore, it is crucial to ensure that technology is not used as a substitute for human discourse; rather, it must be used as a means of enhancing communication and students' ability to understand each other.

The introduction of AI into liberatory progressive pedagogy has the potential to significantly increase the reach and effectiveness of this educational approach. Teachers teach students not only how to learn, but also how they can be changemakers in their communities by using AI to increase their understanding of social issues and encourage them to actively participate in social transformation.

PROGRESSIVE SOCIAL-CRITICAL TENDENCY OF CONTENTS OR HISTORICAL-CRITICAL TENDENCY

The pedagogical conception in this trend prioritizes knowledge of scientific content, the use of study methods, the development of scientific capabilities and reasoning, for the formation of critical awareness of subjects, making them capable of acting in the face of social reality, transforming society and themselves. In the process of student education, it defends the use of reflection on social practice as a fundamental point. In the role of the school: "the dissemination of content is the primary task. Not abstract content, but living, concrete and, therefore, inseparable from social realities. [...] education is a mediating activity within global social practice, that is, one of the mediations by which the student, through the intervention of the teacher and through his own active participation, moves from an initially confused and fragmented (syncretic) experience to a synthetic, more organized and unified vision." (LUCKESI, 1996, p.69; LIBÂNEO, 1985, p. 38-39).

The development of teaching work relates the practice experienced by students with the content proposed by the teacher. The methods in this trend do not start from artificial knowledge or spontaneous knowledge, but rather from a direct relationship with the student's experience, confronted with knowledge brought from outside. Knowledge is produced in the interaction between the environment in which the subject lives. The role of the teacher is to be a mediator and to analyze the content in comparison with social realities. Saviani (2011) describes this role of the teacher in his presentation at the Round Table "Marxism and Education: Marxist Foundations of Historical-Critical Pedagogy", held at the VII International Marx and Engels Colloquium, at IFCH-UNICAMP in July 2012, in which he highlights an episode

that occurred in his class at Colégio Sion, on October 22, when he was surprised by the students' request to discuss the grand final of the Brazilian Popular Music Festival. And, having the idea that "the role of the school is not to show the visible side of the moon, that is, to reiterate everyday life, but to show the hidden side, that is, to reveal the essential aspects of social relations that are hidden beneath the phenomena that are revealed to our immediate perception" (SAVIANI, 2011, p. 201), he responded to the students' request and replaced the material he had prepared: the report on racial prejudice with the lyrics of the song "Alegria, alegria" by Caetano Veloso, which came in fourth place at the festival, continuing the program of the discipline, dealing with the theme defined for that class, achieving the expected objective. This teaching action makes it possible to understand pedagogy as a theory of education:

> • He could have adopted the stance of a typically traditional teacher, responding that unfortunately he had a schedule to fulfill. An answer based on the theory of traditional pedagogy, according to which in the educational process reason must prevail over emotion, the logical aspect over the psychological, and content over methods or procedures; • Or he could have acted like a typical New School teacher, answering yes, no problem. Let's discuss the festival. This answer is based on the theory of New Pedagogy, according to which, conversely, emotion must precede reason, the psychological aspect prevails over the logical, and methods prevail over content.

However, Professor Saviani's attitude in giving in to the students' request was neither that of a traditional teacher nor that of a New School teacher. Rather, it was a response based on the theory of "historicalcritical pedagogy," in which teaching methods favor "correspondence with the interests of students, and that they can recognize in the content the aid in their effort to understand reality (social practice)." (LUCKESI, 1996, p.68). According to Aranha (1997, p. 216), historical-critical pedagogy seeks to establish a pedagogical theory based on the understanding of our historical and social reality, with the purpose of "making possible the mediating role of education in the process of social transformation." Saviani (2010b) emphasizes that the method used in historical-critical pedagogy is based on the social practice in which the teacher and the student interact equally, in which each one occupies a distinct position, which allows a relationship established in the understanding and direction of the solution of the problems posed by the social practice. The author understands "educational work as the act of producing, directly and intentionally in each singular individual, the humanity that is produced historically and collectively by the group of men" (SAVIANI, 2003, p. 13). Thus, historical-critical pedagogy, interested in articulating the school with the needs of the working class, is committed to implementing effective teaching methods.

To facilitate the understanding of this new pedagogical proposal, the author presents in his work entitled School and Democracy the five steps of the historical-critical method: first step - is the social practice, which is common to both the teacher and the student; second step - problematization, detecting the issues that need to be resolved within the scope of social practice and how education can provide the appropriate solutions; third step - instrumentalization, is the appropriation of the theoretical and practical instruments necessary to address the problems detected in social practice; fourth step - moment of catharsis, is the culmination of the pedagogical process, when the effective incorporation of cultural instruments occurs, transformed into active elements of social transformation; fifth step - is the point of arrival, is the social practice itself, now understood no longer in syncretic terms by the students.

At this moment, at the same time that the students ascend to the synthetic level at which the teacher was already at the starting point, the precariousness of the teacher's synthesis is reduced, whose understanding becomes increasingly organic. (SAVIANI, 2000).

The analysis and interpretation of large amounts of data is facilitated by AI, which is fundamental to the development of critical and scientific reasoning. For example, sophisticated algorithms can be used to find patterns in social, economic and environmental case studies. This provides students with a rich database to discuss issues in class. This allows for a deeper analysis of the social conditions that shape their experiences. This is in line with the goal of pedagogy to understand and change social reality.

AI can also be used to model complex social situations through simulations or augmented virtual realities. These technologies can help students visualize and directly experience the effects of social characteristics such as economic inequality and climate change, supporting experiential and action-based learning. This is particularly useful in historical-critical pedagogy, where the goal of teaching is to prepare students to act in an informed and transformative way on reality.

AI platforms can be programmed to promote conversations and facilitate interaction in learning environments where conversation and interaction are important. Ethical concerns such as algorithmic risk to life and data privacy must be taken into consideration, when incorporating AI into progressive social-critical pedagogy. These systems can provide instant feedback, pose difficult questions, and ensure that all points of view are considered. By using this technology, educators can more effectively focus on guiding students through the complex process of critical learning.

The application of these technologies must not replace the essential human component of education, but must respect the rights and dignity of students.

Critical historical pedagogy can help students understand and transform reality even more by using AI in ethical and strategic ways. This strategy not only reaffirms the value of scientific and critical content, but also adapts education to meet the needs and possibilities of the modern world, ensuring that education remains relevant and transformative.

FINAL CONSIDERATIONS

The above shows that the prevailing pedagogical trends in a given historical period have influenced the organization and development of teaching work. The roles of the school, the teacher, and the student are different for each one. As mentioned earlier, the aim of this study is not to discuss trends extensively; rather, it focuses on how teachers' work has been organized and developed based on pedagogical trends.

Thus, after this brief introduction, we agree with the theorists that teachers must appropriate each pedagogical trend so that they can confront them with their pedagogical practices and reflect on their pedagogical actions to identify which trend most closely matches their attitude as a teacher. Pedagogical trends can be traditional, renovating, progressive, non-directly renewed, technicist, liberating, or libertarian.

Luckesi (1996) emphasizes that it is the educator's responsibility to critically identify which trend will guide their pedagogical practice by understanding these trends. It is impossible to do without any of these, because when we do not "think, we are thought and directed by others". As a result, teacher training courses must include a course that provides an understanding of modern educational theories so that students can create a conception of education.

In addition, teacher training courses must include an understanding of advanced educational technologies, such as AI, when making decisions about the future of education. This will ensure that educators are prepared to choose and implement the pedagogical trends that best align with their educational visions and the needs of their students, as Luckesi warns. The ability to incorporate emerging technologies into their educational practices can be fundamental to training educators who are true facilitators of learning in the 21st century, rather than just transmitters of knowledge.

This approach is in line with the perspective of a more conscious and adaptive education, which prepares teachers to face the challenges of an educational environment increasingly influenced by technology and innovation. We can ensure an education that is both relevant and transformative, providing students with not only academic knowledge but also the critical and adaptive skills that enable them to navigate the modern world. This can be done by incorporating these new tools and understandings into pedagogical practices.

In short, critically reflecting on educational trends and incorporating new technologies are essential steps towards an educational practice that is truly committed to social transformation and the integral development of students. Education can thus continue to be an essential force for progress and social justice in our century.

REFERENCES

ARANHA, M. L. de A. Filosofia da educação. São Paulo: Moderna, 1997.

HOLMES, W.; BIALIK, M.; FADEL, C. Artificial Intelligence in Education Promises and Implications for Teaching and Learning. Boston, MA: Center for Curriculum Redesign, 2019.

LIBÂNEO, J. C. Democratização da escola pública: a pedagogia crítico-social dos conteúdos. São Paulo: Edições Loyola, 1985.

LUCKESI, C. C. Filosofia da educação. São Paulo: Cortez, 1996.

LUCKIN, R.; HOLMES, W.; GRIFFITHS, M.; FORCIER, L. B. Intelligence Unleashed: An Argument for AI in Education. London: Pearson, 2016.

SAVIANI, D. Escola e democracia. 3. ed. Campinas-SP: Editora Autores Associados, 2000.

SAVIANI, D. Antecedentes, origem e desenvolvimento da pedagogia histórico-crítica. In: MARSIGLIA, A. C. G. (Org.). Pedagogia histórico-crítica: *30 anos*. Campinas-SP: Editora Autores Associados, 2011. cap. 10, p. 197-225.

SAVIANI, D. **O** neoprodutivismo e suas variantes: neoescolanovismo, neoconstrutivismo, neotecnicismo (1991-2001). In: SAVIANI, D. **História das ideias pedagógicas no Brasi***l*. 3. ed. Campinas-SP: Editora Autores Associados, 2010a. cap. XIV, p. 425-442.

SAVIANI, D. Ensaios contra-hegemônicos: as pedagogias críticas buscando orientar a prática educativa (1980-1991). In: SAVIANI, D. **História das ideias pedagógicas no Brasil.** 3. ed. Campinas-SP: Editora Autores Associados, 2010b. cap. XIII, p. 400-424.

SAVIANI, D. Pedagogia histórico-crítica: primeiras aproximações. 8. ed. Campinas-SP: Editora Autores Associados, 2011.

SAVIN-BADEN, M. Immersive Virtual Environments and Augmented Realities: Impact on Learning. 2021.

JOHNSON, L.; ADAMS BECKER, S. Intelligent Tutoring Systems: Transforming Teaching with Continuous and Adaptive Feedback. 2019.

ZHOU, Z.; LIU, A. Personalization in MOOCs: A Critical Literature Review. International Journal of Educational Technology in Higher Education, 2020.