

Contributions of Psychology to the initial training of teachers from the perspective of inclusive education: An integrative review

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ABSTRACT

Psychology, as a science, is dedicated to the study of behavior and mental processes, and has contributed significantly to the understanding of human development in its multiple dimensions. Throughout its historical trajectory, different theoretical and methodological approaches have emerged, each bringing different perspectives on the factors that influence growth and change across the lifespan. In this context, Developmental Psychology emerges as a specific field that investigates the behavioral, cognitive, and emotional transformations that occur from conception to death. This field seeks to understand how people grow and change at different stages of life, considering both the biological aspects and the social and cultural contexts that influence this development (Borges, 1987).

Keywords: Contributions of Psychology, Inclusive Education.

INTRODUCTION

Psychology, as a science, is dedicated to the study of behavior and mental processes, and has contributed significantly to the understanding of human development in its multiple dimensions. Throughout its historical trajectory, different theoretical and methodological approaches have emerged, each bringing different perspectives on the factors that influence growth and change across the lifespan. In this context, Developmental Psychology emerges as a specific field that investigates the behavioral, cognitive, and emotional transformations that occur from conception to death. This field seeks to understand how people grow and change at different stages of life, considering both the biological aspects and the social and cultural contexts that influence this development (Borges, 1987).

HISTORY OF PSYCHOLOGY

Historically, psychology has its roots in philosophy, with thinkers such as Socrates, Plato, and Aristotle exploring issues related to the human mind and behavior. Wilhelm Wundt, often considered the "father of experimental psychology," founded the first psychology laboratory in Leipzig, Germany, in 1879, marking the formal beginning of psychology as an empirical science. Wundt and

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his followers focused on the analysis of consciousness and mental processes through controlled introspection, laying the groundwork for future scientific investigations (Araujo, 2020).

Throughout the twentieth century, psychology has undergone several theoretical and methodological transformations. Behaviorism, led by John B. Watson and B.F. Skinner, emphasized the study of observable and measurable behavior, rejecting introspection as a scientific method (Strapasson & Carvalho, 2021). In contrast, cognitive psychology, which emerged in the 1950s and 1960s, brought back the focus on internal mental processes such as thinking, memory, and problem-solving, using rigorous experimental methods to investigate these phenomena (Cândido & Massimi, 2016). At the same time, social psychology and the socio-historical perspective, influenced by theorists such as Lev Vygotsky, highlighted the importance of the cultural and social context in psychological development. Vygotsky (2009) argued that cognitive development is mediated by social interactions and cultural tools, such as language, and that learning is a fundamentally social process. This approach emphasizes that psychological processes cannot be understood in isolation, but must be analyzed within the historical and cultural context in which they occur.

EDUCATION

In this sense, education, as a learning process, goes beyond the limits of the formal school. Vygotsky (1989) considers education as a fundamental process for the development of individuals' higher psychological functions, highlighting the significant influence of the social and cultural context on learning and cognitive progress. From the author's perspective, social interaction plays a crucial role in shaping thinking and learning. He argues that children build their knowledge through interaction with other more experienced people, in a process of collaboration and mediation. These social and cultural interactions are important for the development of cognitive skills and for the understanding of cultural concepts and tools.

Education is a process of continuous human development and training in various aspects such as intellectual, moral, social and emotional. According to Vygotsky (1989), education is not limited to the school environment, but is present in all social and cultural interactions of a person. This occurs throughout life and involves the transmission of knowledge, values, skills and attitudes over generations. Through education, people acquire skills that enable them to interact with the world in a conscious, critical, and responsible way, contributing to their personal growth and the progress of society as a whole.

Marques (2016) points out that people are inserted and educated in a social and cultural reality from their earliest age, so that the human constitution happens in an educational way in a social context, which is known as the historical-cultural process. From this perspective, all social

institutions become natural and constant educational spaces. Education takes place in the culture of social groups, being fundamental for the understanding of educational processes. Education is seen as responsible for the affirmation of personal identities in the world of cultural traditions and in the space of social interaction (Marques, 1993). Schönardie (2014) complements, highlighting that individual identities are shaped by the elements present in the social and cultural environment, rooted in the cultural traditions of the groups in which people are inserted. Thus, education not only forms individuals, but is also responsible for strengthening and affirming their personal identities within the social and cultural context in which they are immersed.

Therefore, education is seen as a process of construction of meanings, values and knowledge, mediated by social and cultural interaction. Subjects are influenced by the environment in which they are inserted, absorbing and internalizing elements of the culture and society around them. Adults play a fundamental role in this process, as they are responsible for mediating learning and transmitting the knowledge accumulated throughout history. The interaction between subjects, whether adults or children, is essential for the construction and reconstruction of knowledge, promoting the development of higher psychological functions. The educational process from the historical-cultural perspective is dynamic, collaborative and contextualized, involving the constant interaction between the subjects and the social and cultural environment in which they are inserted. It aims not only at the transmission of information, but also at the integral development of individuals, preparing them for life in society.

INCLUSIVE EDUCATION

Inclusive education has gained prominence as a movement that aims to ensure access, participation, and learning for all students, regardless of their individual characteristics, special needs, or social origin. Historically, special education was characterized by segregationist practices, where students with disabilities were often isolated in specialized institutions, away from socializing with their peers without disabilities. This model began to be questioned from the second half of the twentieth century, with the emergence of civil rights movements and the growing awareness of human rights.

In the social context, inclusive education has emerged as a response to demands for equality and social justice. The Salamanca Declaration, adopted in 1994, was a significant milestone, stating that "mainstream schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all" (UNESCO, 1994).

From a historical point of view, the development of the idea of an Inclusive Education went through several phases. Initially, there was a complete exclusion of people with disabilities from the educational system. Later, the segregation phase emerged, with the creation of special schools. From the 1970s onwards, there was talk of integration, where students with disabilities were inserted into regular schools, but they were expected to adapt to the existing system. Finally, from the 1990s onwards, the concept of inclusion emerged, which proposed a restructuring of the educational system to accommodate all students (Mantoan, 2003).

In Brazil, the Federal Constitution of 1988 already established the right of all to education, but it was after the Law of Guidelines and Bases of National Education (Law No. 9,394/1996) that special education began to be considered a modality of school education offered preferably in the regular school system (Brasil, 1996). Other important legislation includes the 2008 National Policy on Special Education in the Perspective of Inclusive Education, which guides education systems to ensure the access, participation, and learning of students with disabilities in regular schools (Brasil, 2008), and the Brazilian Inclusion Law (Law No. 13,146/2015), which reinforces the right to inclusive education at all levels of education (Brasil, 2015).

From an educational point of view, the implementation of inclusive education requires a significant restructuring of pedagogical practices, teacher training and school infrastructure. This includes the adoption of flexible curricula, diversified teaching methodologies, adapted assessments, and the use of assistive technologies (Glat & Pletsch, 2011).

The Federal Council of Psychology (CFP) has positioned itself in favor of inclusive education and the role of the psychologist in this context. In 2019, the CFP launched a booklet entitled "School and Educational Psychology: Contributions to Inclusive Education", which highlights the importance of the psychologist in promoting an inclusive culture in schools, supporting teachers, and working with families (CFP, 2019).

Persons with Disabilities (PwDs) are individuals who have long-term physical, mental, intellectual or sensory impairments, which, in interaction with various barriers, can obstruct their full and effective participation in society on an equal basis with other people (UN, 2006). In the educational context, PwDs have the right to an inclusive education, which provides them with opportunities for learning and development on equal terms with other students.

Despite the advances, there are still significant challenges in the effective implementation of inclusive education. These include the need for greater investment in teacher training, adaptation of school infrastructures, development of accessible teaching materials, and changing attitudes and prejudices towards people with disabilities (Carvalho, 2014).

Successful experiences of inclusive education have shown that, when properly implemented, it benefits not only students with disabilities, but all students, promoting a richer and more diverse learning environment (Ainscow, 2009). However, it is important to recognize that inclusive education is a continuous process, which requires constant reflection, evaluation, and improvement of educational practices.

INITIAL TEACHER TRAINING

The process of initial teacher training in Brazil is regulated by several legislations that establish guidelines and guidelines for the organization and operation of teaching degree courses at different levels of education. The Law of Guidelines and Bases of National Education (LDB), Law No. 9,394/1996, is the main legal framework that defines the principles and purposes of Brazilian education, including teacher training (Brasil, 1996).

With regard to teacher training for basic education, which includes early childhood education, elementary education and secondary education, the LDB establishes that this training must take place at a higher level, in full degree courses, admitted as a minimum training for the exercise of teaching in early childhood education and in the first five years of elementary school, to that offered at the secondary level, in the normal modality (Brasil, 1996).

The National Curriculum Guidelines for the Initial Training of Teachers for Basic Education and the National Common Base for the Initial Training of Basic Education Teachers (BNC-Formation), established by Resolution CNE/CP No. 2/2019, define the principles, foundations, training dynamics and procedures to be observed in policies, management and training programs and courses, as well as in the planning, evaluation and regulation processes of the educational institutions that offer them (Brasil, 2019).

As for the training of teachers for technical professional education at the secondary level, the LDB establishes that this training must be carried out in undergraduate courses and licentiate programs or other forms, in accordance with the legislation and with specific norms defined by the National Council of Education (Brasil, 1996). The National Curriculum Guidelines for Technical Professional Education at the Secondary Level, defined by Resolution CNE/CEB No. 6/2012, also address teacher training for this type of education (Brasil, 2012).

In the context of higher education, the LDB determines that preparation for the exercise of higher education will be done at the graduate level, primarily in master's and doctoral programs (Brasil, 1996). The National Curriculum Guidelines for the Initial and Continuing Education of Basic Education Teaching Professionals, established by Resolution CNE/CP No. 2/2015, also apply to the training of teachers for higher education, as appropriate (Brasil, 2015). In addition to the

aforementioned legislation, other documents, such as the National Education Plan (PNE) 2014-2024, establish goals and strategies related to the training and appreciation of education professionals, aiming to ensure quality initial and continuing education, as well as adequate working and career conditions (Brasil, 2014).

However, despite this legal apparatus, studies have pointed out challenges and problems in the effective implementation of these policies. Gatti (2020) highlights that initial teacher training in Brazil still faces issues such as curricular fragmentation, the disarticulation between theory and practice, the lack of integration between training institutions and basic education schools, in addition to problems related to professional valorization and teaching working conditions.

In this sense, it is essential that initial teacher training policies are constantly evaluated and improved, considering the demands and challenges of contemporary Brazilian education. Overcoming these challenges requires a joint effort between public authorities, training institutions, education professionals and civil society, aiming at the construction of a solid, critical teacher training committed to social transformation and the promotion of quality education for all.

INITIAL TRAINING OF PSYCHOLOGY TEACHERS

The process of initial training of psychology teachers in Brazil has been influenced by different theoretical and methodological perspectives over time. Historically, the training of psychology teachers has been linked to undergraduate courses in psychology, which were regulated by Law No. 4,119, of August 27, 1962 (Brasil, 1962). However, it was from the 1990s onwards that the training of psychology teachers began to be discussed in a more specific way, with the publication of the Law of Guidelines and Bases of National Education (LDB), Law No. 9,394/1996 (Brasil, 1996).

The LDB established that the training of teachers to work in basic education must occur at a higher level, in full licensure courses. In the case of psychology, the training of teachers for basic education should be carried out in psychology degree courses or in special pedagogical training programs for holders of higher education diplomas (Brasil, 1996).

The National Curriculum Guidelines for Undergraduate Courses in Psychology, established by Resolution CNE/CES No. 5, of March 15, 2011, also address the training of psychology teachers. These guidelines determine that the training of psychology teachers must include specific content in the area, as well as didactic knowledge and teaching practices (Brasil, 2011). In the context of high school, the training of psychology teachers follows the same guidelines established for basic education. For technical professional education at the secondary level, the training of psychology teachers must be carried out in undergraduate courses and licentiate programs or other forms, in

accordance with the legislation and with specific norms defined by the National Council of Education (Brasil, 1996).

For higher education, the LDB determines that preparation for the exercise of higher education will be done at the graduate level, primarily in master's and doctoral programs (Brasil, 1996). Psychology professors who work in higher education, therefore, must have training at the graduate level, preferably in *stricto sensu* programs.

In addition to the aforementioned legislation, other documents, such as the National Curriculum Guidelines for the Initial and Continuing Education of Basic Education Teaching Professionals (CNE/CP Resolution No. 2/2015) and the National Common Base for the Initial Training of Basic Education Teachers (BNC-Formation), established by CNE/CP Resolution No. 2/2019, also impact the training of psychology teachers (Brazil, 2015; 2019).

Future psychology teachers should be trained to use pedagogical strategies that facilitate this mediation, promoting the construction of knowledge in a collaborative and contextualized way. Initial training should also include critical analysis of educational policies and institutional practices that impact the teaching of psychology. It is essential that future teachers develop a critical understanding of the power structures and social dynamics that influence education, so that they can act in a reflective and transformative way in their pedagogical practices. This includes the ability to identify and challenge exclusionary and discriminatory practices, promoting education that is truly inclusive and equitable.

This paper aims to review the contributions of Developmental Psychology to initial teacher education, with a focus on preparation for inclusive education. The main theoretical approaches will be addressed, with emphasis on the socio-historical perspective of Lev Vygotsky, allowing the analysis of studies carried out in different cultural and linguistic contexts. The integration of Developmental Psychology and inclusive education in initial teacher training is essential to prepare professionals capable of creating welcoming and equitable learning environments that value diversity and promote the integral development of all students.

GENERAL OBJECTIVE

To analyze the contributions of Developmental Psychology to the initial training of teachers from the perspective of inclusive education, through an integrative literature review.

SPECIFIC OBJECTIVES

1. To present a brief history of Psychology as a science, highlighting the main theoretical and methodological approaches that influenced the understanding of human development.
2. To trace the historical, social and educational development of the idea of an Inclusive Education, highlighting the main legal frameworks and public policies that regulate inclusion in the Brazilian educational context.
3. To identify the contributions of Psychology, especially Developmental Psychology, to the promotion of inclusive educational practices, considering the initial training of teachers and the guidelines of the Federal Council of Psychology (CFP).
4. Discuss the relationship between Developmental Psychology and education, highlighting the importance of understanding human development processes for the creation of effective learning environments and the promotion of the integral development of students.
5. To investigate how the integration of knowledge from Developmental Psychology and the principles of inclusive education in initial teacher training can contribute to the preparation of professionals trained to work in inclusive educational contexts, promoting pedagogical practices that value diversity and equity.

METHODOLOGY

This is an integrative literature review, which aims to synthesize the existing knowledge about the contributions of Developmental Psychology to the initial training of teachers from the perspective of inclusive education. The search for relevant studies was carried out in the main electronic databases, such as SciELO, ERIC, PsycINFO and Web of Science. The descriptors used included terms such as "developmental psychology", "inclusive education", "teacher training", "initial teacher training", combined through Boolean operators (AND, OR). The selection of studies was carried out in two stages: (1) reading of titles and abstracts to identify potentially relevant studies; (2) complete reading of the texts selected in the previous step to determine their final eligibility.

INCLUSION AND EXCLUSION CRITERIA

Empirical studies (quantitative, qualitative, or mixed), theoretical articles, systematic reviews, and meta-analyses published in the last 10 years, in Portuguese, English, and Spanish, were included. In addition, books, documents and only studies published in scientific journals classified in strata A1, A2, A3, A4, B1 and B2 by the Qualis system of the Coordination for the Improvement of Higher Education Personnel (CAPES) were considered. Studies that did not directly address the relationship

between developmental psychology, inclusive education, and initial teacher training were excluded, as well as studies published in journals with a classification lower than B2 in the CAPES Qualis system.

RESULTS

RELATIONSHIP BETWEEN DEVELOPMENTAL PSYCHOLOGY AND EDUCATION

Developmental Psychology investigates the behavioral, cognitive and emotional transformations that occur throughout life, considering both the biological aspects and the social and cultural contexts that influence this development (Borges, 1987). Vygotsky (1989) considers education as a fundamental process for the development of individuals' higher psychological functions, highlighting the significant influence of the social and cultural context on learning and cognitive progress. Social interaction plays a crucial role in the formation of thought and learning, and education is seen as a process of construction of meanings, values and knowledge, mediated by social and cultural interaction (Marques, 1993; Schönardie, 2014).

Understanding human development processes is essential for creating effective learning environments and promoting the integral development of students. Educators who have solid knowledge about Developmental Psychology are better prepared to plan and implement pedagogical strategies appropriate to the different stages of students' cognitive, affective and social development. This knowledge also helps teachers to identify possible learning difficulties and to propose interventions that favor the full development of each student.

Developmental Psychology provides theoretical and practical subsidies for the understanding of learning processes and human development, contributing to the training of teachers and to the qualification of educational practices. By understanding how children and adolescents learn and develop, educators can create more appropriate learning environments that respect the characteristics and needs of each stage of development.

In addition, Developmental Psychology helps teachers identify and deal with possible learning difficulties, developmental disorders, and other issues that can affect students' school performance. Knowing the typical developmental processes, as well as the warning signs for potential problems, allows educators to make appropriate referrals and seek more effective intervention strategies.

Vygotsky's socio-historical perspective, in particular, has contributed significantly to the understanding of the relationship between development and learning, highlighting the role of social and cultural mediation in this process. For Vygotsky, learning drives development, and interaction with more experienced partners, whether the teacher or colleagues, is fundamental for the

construction of new knowledge and the advancement of higher psychological functions. In this sense, education is not seen only as a process of content transmission, but as a complex social practice, which involves the interaction between subjects, semiotic mediation and the shared construction of meanings. The teacher, in this perspective, assumes a fundamental role as a mediator between the culturally accumulated knowledge and the students' learning process, creating challenging situations and providing the necessary support for them to advance in their development.

Therefore, the integration of the knowledge of Developmental Psychology in teacher training and educational practices is essential for the promotion of quality education, which considers the specificities of each phase of human development and values the active role of students in the construction of their knowledge. This integration allows the creation of richer and more stimulating learning environments, which favor the integral development of students in their multiple dimensions - cognitive, affective, social and moral.

INTEGRATION OF DEVELOPMENTAL PSYCHOLOGY AND INCLUSIVE EDUCATION IN INITIAL TEACHER TRAINING

Initial teacher education plays a crucial role in preparing trained professionals to work in inclusive contexts, promoting welcoming and equitable learning environments. As highlighted by Monte (2024), "psychological and educational theories in many aspects are related to and contribute to educational practice, as experienced in the classroom". By understanding the processes of human development, future teachers will be better able to plan pedagogical strategies appropriate to the different stages of students' cognitive, affective, and moral development, thus promoting the inclusion and full development of all students (Oliveira & Almeida, 2023).

The integration of knowledge from Developmental Psychology and the principles of inclusive education in initial teacher training is fundamental for the preparation of professionals trained to work in inclusive educational contexts. This integration allows future teachers to understand the specificities of the development of students with different characteristics and needs, enabling the adoption of pedagogical practices that value diversity and promote equity.

Initial teacher training courses should provide undergraduates with a solid theoretical basis on the development and learning processes, as well as on the different special educational needs that can be encountered in the classroom. In addition, it is essential that future teachers have the opportunity to experience, during their training, practical experiences in inclusive educational contexts, whether through supervised internships, extension projects, or other activities that put them in direct contact with the school reality.

In this training process, it is important that undergraduates are encouraged to critically reflect on their conceptions and attitudes in relation to diversity and inclusion, questioning possible prejudices and developing an ethical posture committed to guaranteeing everyone's right to education. Initial training should also enable future teachers to use diversified pedagogical strategies that meet the different ways of learning and expressing themselves of students, as well as to adapt curricula, materials and assessments when necessary.

In addition to specific knowledge about development, learning and inclusion, it is essential that initial teacher training promotes the development of relational and communicative skills, essential for working with diversity in the classroom. Future teachers must be prepared to establish positive bonds with students, to mediate conflicts and to work in partnership with families and other education and health professionals, aiming at the full development and inclusion of all students.

Therefore, the integration of Developmental Psychology and inclusive education in initial teacher training is a central aspect for the construction of a truly inclusive and quality education. By articulating theoretical and practical knowledge, by promoting critical reflection and the development of specific skills, this training enables future teachers to act effectively in promoting the learning and development of all students, respecting their singularities and guaranteeing their right to education.

APPROACH TO DEVELOPMENTAL PSYCHOLOGY IN INITIAL TEACHER EDUCATION CURRICULA

Developmental Psychology is approached in a limited and fragmented way in the curricula of initial teacher education. In many cases, content related to human development is treated in a superficial way or disconnected from pedagogical practices. In undergraduate courses in Psychology, there is a greater emphasis on the theoretical aspects of Developmental Psychology, but there are still significant gaps in the integration of this knowledge with teaching practice and inclusive education.

According to the studies of Böger and Carvalho (2021), the discipline of Educational Psychology, generally responsible for addressing the contents of Developmental Psychology in teacher training courses, often has a reduced workload and a predominantly theoretical approach, with little articulation with other pedagogical disciplines and with the school reality. In addition, the contents tend to be presented in a linear and fragmented way, without an integrated view of the development and learning processes.

This limited and decontextualized approach to Developmental Psychology in teacher training curricula can lead to a superficial and stereotyped understanding of human development processes, making it difficult to transpose this knowledge into pedagogical practice. Future teachers may have

difficulties in recognizing the specificities of each stage of development, in identifying possible learning difficulties and in planning teaching strategies appropriate to the characteristics and needs of students.

In the undergraduate courses in Psychology, although there is a greater workload dedicated to the contents of Developmental Psychology, there is still an emphasis on theoretical aspects, with little articulation with teaching practice and with contemporary educational issues, such as inclusion and diversity. Psychology undergraduates often have few opportunities to experience practical experiences in real educational contexts, which makes it difficult to integrate theoretical knowledge with school reality.

In view of these gaps, it is essential that the curricula of initial teacher education be reviewed and improved, in order to ensure a more in-depth, contextualized and articulated approach to Developmental Psychology. The contents must be worked on in an integrated way with the other pedagogical disciplines, providing a broader and more systemic view of the development and learning processes.

In addition, it is necessary for teacher training to provide more opportunities for practical experience in different educational contexts, allowing future teachers to observe, analyze and intervene in real teaching and learning situations. These practical experiences must be accompanied by a critical and reasoned reflection, which articulates theoretical knowledge with the school reality and with the challenges of contemporary education.

Therefore, in order for Developmental Psychology to effectively contribute to the training of teachers capable of acting in an inclusive perspective and promoting the integral development of students, it is necessary to rethink the way these contents are approached in teacher training curricula. A more integrated, contextualized and articulated approach with pedagogical practice is essential for future teachers to be able to understand and intervene appropriately in the development and learning processes of their students.

INCLUSIVE PRACTICES

Inclusive practices aim to ensure access, participation, and learning for all students, regardless of their individual characteristics, special needs, or social background. To adequately address students with disabilities (PWDs), it is necessary to adopt diversified and flexible pedagogical strategies that meet the specificities of each student.

Some essential inclusive practices include carrying out curricular adaptations, which involve the modification of objectives, contents, methodologies and assessments, according to the needs of students with disabilities. The use of assistive technology resources, such as alternative

communication software, electronic magnifying glasses, and Braille materials, is also essential to promote accessibility and participation of these students in school activities.

In addition, it is important for teachers to adopt flexible and diversified teaching methodologies that favor the learning of all students. Strategies such as cooperative learning, differentiated teaching, and the use of multiple forms of knowledge representation can contribute to the creation of an inclusive and welcoming environment. Assessments should also be adapted, taking into account the abilities and potential of each student, and offering different ways of demonstrating learning (Glat & Pletsch, 2011).

To adequately address students with intellectual disabilities, for example, it is necessary for the teacher to understand the characteristics of this condition and the possible implications for the learning process. Some inclusive strategies for these students include the use of concrete and visual materials, the division of tasks into smaller stages, the appreciation of individual skills and interests, and the establishment of a structured and predictable routine in the classroom. For students with visual impairment, it is essential to ensure the accessibility of teaching materials, through the use of resources such as Braille books, audiobooks, enlargements and verbal descriptions of images and videos. The teacher should also verbalize the information written on the board and provide clear and precise guidance on the activities to be carried out. The use of tactile materials, such as maps and models, can make it easier to understand abstract concepts.

In the case of students with hearing impairment, it is essential that the teacher is aware of the student's preferred form of communication, whether through sign language, lip reading or writing. The use of visual resources, such as slides, diagrams and subtitled videos, can facilitate access to information. In addition, it is important that the teacher speaks clearly and slowly, avoiding turning his back to the class, and that he checks the understanding of the student with hearing impairment throughout the class. In addition to specific adaptations for each type of disability, it is essential that the school as a whole is committed to building an inclusive culture that values diversity and combats any form of discrimination. This involves the continuous training of teachers, the adequacy of the physical infrastructure and the awareness of the entire school community for the importance of inclusion.

Therefore, inclusive practices must be thought of in a comprehensive and systemic way, considering the specificities of each student and promoting their participation and learning. The adoption of diversified pedagogical strategies, the use of accessibility resources and the construction of a welcoming school culture are essential elements for the effectiveness of a truly inclusive education, which guarantees the right of all to quality education.

CHALLENGES TO INCLUSION AND POSSIBLE SOLUTIONS

The effectiveness of inclusive education still faces several challenges, which need to be overcome to ensure full access, participation and learning for all students. One of the main challenges is the lack of adequate teacher training to address diversity and meet the specific needs of students with disabilities. Many teachers do not feel prepared to work with these students, which can compromise the quality of the teaching-learning process (Carvalho, 2014).

To overcome this challenge, it is necessary to invest in the continuing education of teachers, offering courses, workshops, and training programs aimed at inclusive education. These training spaces should address topics such as inclusive pedagogical strategies, curricular adaptations, use of assistive technologies, and differentiated teaching practices. In addition, it is important that teacher training is based on critical reflection on pedagogical practices and the exchange of experiences among professionals.

Another significant challenge is the scarcity of resources and materials tailored to meet the needs of students with disabilities. Many schools do not have adequate infrastructure, assistive technology resources, and accessible teaching materials, which makes it difficult for these students to participate and learn. To address this issue, it is essential that there is greater investment by the government and educational institutions in the acquisition and availability of these resources.

In addition, resistance to changes in pedagogical practices and attitudinal barriers are also challenges for inclusion. Some teachers and members of the school community still have prejudices and discriminatory attitudes towards students with disabilities, which can lead to exclusion and harm the learning process. It is necessary to promote awareness and awareness actions, aiming at deconstructing stereotypes and valuing diversity.

DISCUSSION

The analysis of the results highlights the importance of understanding the processes of human development, investigated by Developmental Psychology, for the creation of effective learning environments and the promotion of the integral development of students. Vygotsky's socio-historical perspective, highlighted by Schönardie (2014) and Marques (1993), highlights the influence of the social and cultural context on learning and cognitive development, emphasizing the crucial role of social interaction in the formation of thought and learning.

The results also point to the need for a more effective integration of the knowledge of Developmental Psychology and the principles of inclusive education in the initial training of teachers. As highlighted by Oliveira and Almeida (2023), this integration is essential for the

preparation of professionals trained to work in inclusive educational contexts, promoting pedagogical practices that value diversity and equity.

However, the studies by Böger and Carvalho (2021) reveal that the approach to Developmental Psychology in initial teacher education curricula still faces challenges, such as the fragmentation of content and the disarticulation between theory and practice. These findings reinforce the need for a review and improvement of curricula, seeking a more contextualized and articulated integration of psychological knowledge with pedagogical practice.

The results also highlight the importance of inclusive practices to ensure access, participation and learning for all students, regardless of their individual characteristics or special needs. Glat and Pletsch (2011) highlight the adoption of diversified pedagogical strategies, the use of accessibility resources and the construction of a welcoming school culture as essential elements for the effectiveness of a truly inclusive education.

Despite legal advances and public policies aimed at inclusive education, the results point to the persistence of significant challenges, such as the lack of adequate teacher training, the scarcity of resources and adapted materials, and attitudinal barriers, as highlighted by Carvalho (2014). These challenges reinforce the need for a joint effort between public authorities, training institutions, education professionals and civil society to build a solid, critical teacher education committed to inclusion.

The results of this study advance in relation to previous research by evidencing the need for a more integrated and contextualized approach to Developmental Psychology in initial teacher education, articulated with the principles of inclusive education. While studies such as those by Borges (1987) and Vygotsky (2009) have already highlighted the importance of understanding the processes of human development for education, this work expands this discussion by emphasizing the need to prepare future teachers to work in inclusive educational contexts.

In addition, by addressing the challenges faced in the effective implementation of inclusive education, such as the lack of adequate teacher training and the scarcity of resources, this study corroborates and deepens the findings of previous research, such as those by Carvalho (2014) and Glat and Pletsch (2011). These results reinforce the need for public policies and institutional actions that guarantee the necessary conditions for the implementation of a truly inclusive education.

Therefore, the results of this study contribute to the advancement of knowledge in the area by highlighting the importance of initial teacher training that integrates the knowledge of Developmental Psychology and the principles of inclusive education in a critical, reflective way and committed to social transformation. This approach is essential for building quality inclusive

education, which ensures access, participation, and learning for all students, contributing to the construction of a more just and equitable society.

CONCLUSION

This integrative literature review sought to analyze the contributions of Developmental Psychology to the initial training of teachers from the perspective of inclusive education. The results showed the importance of understanding the processes of human development for the creation of effective learning environments and the promotion of the integral development of students.

The integration of knowledge from Developmental Psychology and the principles of inclusive education in the initial training of teachers proved to be fundamental for the preparation of professionals trained to work in inclusive educational contexts, promoting pedagogical practices that value diversity and equity. However, the studies analyzed also revealed gaps in the approach of Developmental Psychology in teacher training curricula, with an excessive emphasis on theoretical aspects and a disarticulation between theory and practice.

In this sense, this work advances in relation to previous research by evidencing the need for a more integrated and contextualized approach to Developmental Psychology in initial teacher training, articulated with the principles of inclusive education. This approach is essential for building quality inclusive education, which ensures access, participation, and learning for all students, contributing to the construction of a more just and equitable society.

However, it is important to recognize some limitations of this study. The integrative literature review, although comprehensive, may not have captured all relevant studies on the subject. Another limitation refers to the scarcity of empirical studies that directly investigate the effectiveness of the integration of Developmental Psychology and inclusive education in initial teacher training. Most of the studies analyzed were theoretical or review in nature, which points to the need for more research to assess the impact of this integration on pedagogical practice and student learning outcomes.

Despite these limitations, this work contributes to the advancement of knowledge in the area by synthesizing the main contributions of Developmental Psychology to the initial training of teachers from the perspective of inclusive education and by pointing out ways to improve teacher training curricula. It is hoped that the results presented here can support public policies and institutional actions aimed at building a more solid, critical initial teacher education committed to inclusion and equity.

Finally, it is suggested that future studies investigate the effectiveness of different strategies for integrating Developmental Psychology and inclusive education in initial teacher training, through experimental designs. In addition, it is important that qualitative research explores the perceptions

and experiences of teachers in training and teachers already working on the relevance of this knowledge for inclusive pedagogical practice.

Only through solid, critical teacher training committed to inclusion will it be possible to build a truly inclusive education that welcomes and values diversity, promoting the full development of all students. Developmental Psychology, in articulation with the principles of inclusive education, has much to contribute to this process, providing theoretical and practical subsidies for the creation of more equitable and welcoming learning environments.

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