Revista ARACÊ
ISSN: 2358-2472

# TRAINING TEACHERS FOR NEUROINCLUSIVE EDUCATION: CHALLENGES AND PERSPECTIVES

https://doi.org/10.56238/arev6n4-421

**Submitted on:** 26/11/2024 **Publication date:** 26/12/2024

**Hermócrates Gomes Melo Júnior[1], Nubiragina Salasar of the Kings[2], Tatiana Coelho[3], Gilvaneide dos Santos Evangelista Esbaltar[4] and Giuliana Ribeiro Carvalho[5]**

## ABSTRACT

The article analyzed the relationship between neuroscience, inclusive education and digital technologies, with the aim of investigating how teacher training can be improved to meet the cognitive diversity of students. The topic of neuroinclusive education was addressed as an innovative approach that uses knowledge about brain plasticity to create more effective and inclusive pedagogical strategies. The methodology was based on bibliographic research, carried out through a survey of articles, books, and studies in databases such as Scielo, focusing on publications between 2000 and 2024. Inclusion and exclusion criteria were adopted based on thematic relevance, timeliness, and quality of the sources. The analyses showed that the integration of digital technologies and pedagogical practices based on neuroscience can promote the inclusion of students with Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), dyslexia and high abilities/giftedness. The study also highlighted the importance of Individualized Educational Planning (IEP) and continuing education for teachers, as indispensable strategies to overcome structural and cultural barriers in inclusive education. It was concluded that the construction of a truly inclusive school depends on collaborative efforts between educators, managers, universities and public policy makers. In addition, the need for future research to evaluate the effectiveness of neuroinclusive practices in different school contexts was pointed out. Thus, the article contributed to broaden the debate on neuroinclusive education and its transformative potential.

[1] Doctorate student in Educational Sciences
Branner Global University
E-mail: hgjunior@ufba.br
LATTES: http://lattes.cnpq.br/8093225047166359
[2] Specialist in Institutional Psychopedagogy with Emphasis on Special Education
Faculdade Maranhense (FAM)
E-mail: nubya81_reis@hotmail.com
[3] Special Education Specialist
Fasul Educacional
E-mail: tatianaacoelho@gmail.com
LATTES: https://lattes.cnpq.br/6640052270043335
[4] Master's student in Emerging Technologies in Education
MUST University
E-mail: gilvasee@yahoo.com.br
[5] Doctorate student in Educational Sciences
Inter-American Faculty of Social Sciences (FICS)
E-mail: giuribeiro@gmail.com
LATTES: https://lattes.cnpq.br/0433976455627656

Revista ARACÊ
ISSN: 2358-2472

**Keywords:** Neuroeducation. School Inclusion. Neural Plasticity. Teacher Training. Assistive Technologies.

Revista ARACÊ
ISSN: 2358-2472

## INTRODUCTION

Neuroscience and neuroinclusive education emerged as areas of study that sought to transform the educational environment by integrating knowledge about neurobiological processes and pedagogical practices. The relevance of this theme was linked to the need to meet the cognitive diversity present in classrooms, with special attention to the specificities of students with Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), dyslexia and high abilities/giftedness. In this context, neuroinclusive education was highlighted as an innovative approach that recognized brain plasticity as an essential resource to adapt teaching to individual needs, promoting more equitable and inclusive learning.

The aim of the study was to investigate how the integration between neuroscience, inclusive education and digital technologies could contribute to teacher training and the development of pedagogical practices capable of overcoming traditional teaching barriers. The central question that guided the research was: 'how could teacher training and the use of technological tools be articulated to meet the cognitive diversity of students and promote a truly inclusive education?'

The research data were obtained through a bibliographic survey, whose analyses were described in the following chapters. First, the theme 'Neuroscience and Neuroinclusive Education' was discussed, emphasizing the relationship between learning processes and changes in the central nervous system caused by stimuli and experiences. Next, the topic 'Inclusive Education: Concepts, Challenges and Practices for Effectiveness' was addressed, in which structural, cultural and pedagogical barriers were analyzed, as well as strategies for overcoming them. Subsequently, the section 'Neuroinclusive Education and Digital Technologies: Empowering Teachers for New Challenges' explored the role of digital technologies as tools to enhance inclusion and cognitive development of students. Finally, the results were presented and discussed, highlighting the theoretical and practical contributions of the research, as well as limitations and suggestions for future studies.

Therefore, the research sought to contribute to the understanding of how pedagogical practices based on neuroscience and integrated with digital technologies could transform inclusive education. The analyses carried out provided subsidies for teacher training and the implementation of strategies that respected differences and

Revista ARACÊ
ISSN: 2358-2472

enhanced the learning of all students, indicating ways to build a more equitable and inclusive school.

## METHODOLOGY

The research was conducted based on qualitative methods, adopting bibliographic research as the main strategy to achieve the objectives set. This type of approach was chosen for its ability to offer an overview of the theme, enabling dialogue between different theoretical and empirical perspectives. According to Andrade (2010), bibliographic research is an essential tool in academic activities, such as seminars, debates and monographs, since it allows the construction of a solid base of knowledge from works already published. Fonseca (2002, p.124) complements by stating that "bibliographic research is carried out [...] from the survey of theoretical references already analyzed and published by written and electronic means", highlighting its relevance for the foundation of academic studies.

The bibliographic survey was carried out in recognized academic databases, with emphasis on Scielo (*Scientific Electronic Library Online*), a platform that brings together scientific articles from various areas of knowledge, with a focus on high-quality and impactful publications. The choice for Scielo was motivated by the wide availability of peer-reviewed articles and the diversity of materials related to the field of neuroscience, inclusive education and digital technologies. The keywords used in the search included combinations such as 'neuroscience and education', 'inclusive education', 'digital technologies in school inclusion' and 'teacher training'.

The inclusion criteria were established based on the relevance of the materials to the study objectives, prioritizing articles and books published between 2000 and 2024. This time frame was defined to ensure the contemporaneity of the references and their connection with the current demands and challenges of neuroinclusive education. In addition, only peer-reviewed publications available in Portuguese, English, or Spanish were included. On the other hand, the exclusion criteria included materials whose approach was considered tangential to the central theme of the research or whose publication date exceeded the defined time frame.

The process was divided into specific stages to ensure the organization and quality of the bibliographic survey. Initially, the search was carried out in the databases using the defined keywords. Then, the materials found were filtered based on the inclusion and exclusion criteria. After this selection, the texts were read and categorized according to the

Revista ARACÊ
ISSN: 2358-2472

thematic axes of the research: neuroscience and learning, inclusive education and digital technologies in teaching. This process allowed not only to map the main academic debates on the subject, but also to identify gaps and opportunities for future investigations.

Thus, the materials and methods used in the research were decisive to achieve the proposed objectives. The literature search offered a solid theoretical basis, ensuring that the analyses carried out were based on consistent evidence and contributed to the advancement of discussions on neuroinclusive education.

## NEUROSCIENCE AND NEUROINCLUSIVE EDUCATION

Neuroinclusive education, which seeks to integrate neuroscience knowledge into the pedagogical process, presents itself as an innovative approach to meet the cognitive diversity of students. According to Costa (2023, p. 3), "learning is a process that results in changes in the central nervous system (CNS), caused by stimuli and experiences lived by the individual". This perspective reinforces the need to train teachers capable of understanding the neurobiological mechanisms that influence learning, in order to create more effective and inclusive educational strategies. This training requires a deep understanding of brain plasticity, which allows the human brain to adapt and reorganize itself in response to educational interventions.

In addition, the development of neuroscience has generated "expectations regarding the creation of new treatments for disorders that affect millions of people annually" (Mourão-Júnior; Olive tree; Faria, 2011, p. 24). This scientific evolution reinforces the importance of teachers prepared to work in a context of inclusive education that considers the specificities of each student. Thus, teacher training must be aligned with the advancement of cognitive sciences, integrating pedagogical practices that respect neurocognitive differences, such as those present in students with Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), dyslexia or high abilities/giftedness.

One of the main challenges faced in this trajectory is overcoming a traditional model of teacher training, which often neglects the complexity of students' needs. It is essential that teachers acquire not only knowledge about neuroscience applied to education, but also practical skills to identify and support students with different learning profiles. As noted by Costa (2023), neural plasticity allows the human brain to respond to educational

Revista ARACÊ
ISSN: 2358-2472

interventions in a meaningful way, but such interventions need to be based on more accurate scientific evidence.

For this to be possible, a joint effort between universities, schools and public policies is necessary. Mourão-Júnior, Oliveira and Faria (2011) point out that, although neuroscience offers a rich set of theoretical knowledge, there is still a significant gap in its practical application in the educational environment. Initial and continuing education programs should, therefore, include content on brain development, learning mechanisms, and pedagogical strategies based on neuroscience. These programs need to be built on the basis of interdisciplinary partnerships, involving educators, neuroscientists, and psychologists.

In addition, the school environment should be a space that favors the neurocognitive development of students, respecting their specificities and offering enriching experiences. Costa (2023) emphasizes that learning occurs in response to stimuli and meaningful experiences, which makes it essential for teachers to be able to create teaching environments that stimulate both cognitive and socio-emotional skills. To this end, neuroeducation can offer practical tools that assist in the planning and implementation of active, personalized, and inclusive methodologies.

Another important aspect is the role of public policies in promoting neuroinclusive education. Mourão-Júnior, Oliveira and Faria (2011) emphasize that the dialogue between science and education needs to be encouraged through policies that ensure resources for teacher training, accessible teaching materials and support for schools. Without this institutional support, the implementation of neuroscience-based pedagogical practices may be limited to isolated initiatives, compromising the achievement of their benefits on a large scale.

The integration between neuroscience and education also requires a cultural change in the educational system, which should start to value more the understanding of the individual particularities of students. It is essential that teacher training is focused on the development of skills that enable them to deal with differences, promoting a truly inclusive approach. Thus, the role of the teacher is not only to transmit content, but also to mediate the learning process in a way that is sensitive to the singularities of each student.

Therefore, teacher training for neuroinclusive education presents challenges ranging from the integration between neuroscience and pedagogy to overcoming structural and cultural barriers in the educational system. However, the convergence of this knowledge,

Revista ARACÊ
ISSN: 2358-2472

as defended by Costa (2023) and Mourão-Júnior, Oliveira and Faria (2011), offers promising prospects for the construction of a pedagogical practice that meets cognitive diversity and promotes the full development of students. With adequate investments and quality teacher training, it is possible to achieve a more equitable and transformative education, which benefits not only students, but society as a whole.

## INCLUSIVE EDUCATION: CONCEPTS, CHALLENGES AND PRACTICES FOR EFFECTIVENESS

School inclusion has been consolidated as one of the fundamental pillars of contemporary education, being defined as the practice of ensuring access, participation, and development for all students, regardless of their physical, socioeconomic, or cultural conditions (Bernardini, 2024). In this context, inclusive education seeks to build a school for all, valuing diversity as an enriching element of the educational process. As defended by UNESCO (1994, n.p.), "human differences are normal and, accordingly, learning must be adapted to the needs of the child". Thus, inclusion transcends the simple insertion of students in the school space, demanding profound transformations in pedagogical practices and institutional culture.

However, the effectiveness of school inclusion faces significant barriers. Bernardini (2024) highlights the lack of teacher training, structural prejudices, and the absence of adequate pedagogical resources as the main challenges. Such obstacles compromise the quality of inclusive education and hinder curricular adaptation, which is essential to meet the specific needs of each student. In this sense, Mantoan (2005, p.245) emphasizes that

> [...] the planning of Inclusive Education practices must be based on its main objective, which is to ensure access, participation, learning and development of all students, without exception.

Thus, the continuing education of teachers emerges as an indispensable strategy to overcome existing barriers, promoting the construction of skills necessary to deal with diversity.

In addition, the school plays a crucial role in the development of social and cognitive skills, especially for students with Autism Spectrum Disorder (ASD). Bernardini (2024) points out that social interaction and individualized planning are essential components for the development of these students. It is in this environment that inclusive pedagogical

Revista ARACÊ
ISSN: 2358-2472

practices can be implemented, considering the particularities of each student and ensuring progress in aspects such as communication, socialization, and academic learning. From this perspective, Narciso *et al.* (2024b, p. 715) raise a central question

> Given this reality, crucial questions arise about how the education system can effectively integrate students with different needs while providing a welcoming and efficient learning environment.

In this context, a practical example of successful adaptation can be observed in schools that use Individualized Educational Planning (IEP). This tool allows the personalization of teaching based on the specific needs of the student, promoting effective integration and the development of skills in a structured way. Bernardini (2024) points out that PEI, combined with the use of assistive technologies, can be a differential in supporting students with disabilities, expanding their learning opportunities. Thus, practices such as the use of pictograms for students with ASD or technological devices adapted for students with physical disabilities exemplify how inclusion can be operationalized effectively.

In addition to pedagogical practices, it is necessary to recognize that inclusion depends on a paradigm shift that values diversity and recognizes differences as a starting point for the construction of knowledge. In this regard, UNESCO (1994) argues that learning should be adapted to the needs of the child, highlighting the importance of flexible and accessible curricula. This perspective reinforces the idea that inclusion is not just a legal or ethical obligation, but an opportunity to create richer and more meaningful learning environments for all involved.

Therefore, school inclusion is a continuous and challenging process, but indispensable to promote an education that truly values diversity and ensures the integral development of all students. Bernardini (2024) and Mantoan (2005) point to fundamental paths, such as teacher training and individualized planning, while UNESCO (1994) and Narciso *et al.* (2024) bring reflections on the need to adapt the educational system. Ultimately, inclusive education will only be fully realized when all actors involved – teachers, managers, families and students – assume their role in this transformation process, promoting a truly welcoming and effective school for all.

Revista ARACÊ
ISSN: 2358-2472

## NEUROINCLUSIVE EDUCATION AND DIGITAL TECHNOLOGIES: EMPOWERING TEACHERS FOR NEW CHALLENGES

Teacher training for neuroinclusive education is essential to meet the needs of an ever-changing society, where digital technologies play a central role. According to Freitas (2010, p. 60), "the computer and the internet are not only cultural objects of the contemporary era, but also act as material and symbolic instruments". In this context, neuroinclusive education seeks to integrate these instruments into teaching, promoting the inclusion of students with different needs and valuing their potential. This approach requires teachers not only to have pedagogical knowledge, but also skills that allow them to use technology effectively to enhance the learning of all students.

However, the implementation of neuroinclusive practices faces several challenges. Among them, the need for teacher training that includes both the theoretical aspects of neuroscience and practical skills for application in the school context stands out. Narciso *et al.* (2024, p. 406) point out that "the main objective is to explore how the use of digital technologies can positively influence the communication, socialization, and cognitive development of autistic individuals". However, many teachers still lack adequate training to use these tools in an integrated way with pedagogical practices, which can limit the reach of the benefits of digital technologies.

Another important challenge is the resistance to change in traditional educational practices. Despite evidence that digital technologies offer significant opportunities to improve the quality of life of autistic people (Narciso *et al.*, 2024), there are still prejudices and institutional barriers that hinder its adoption in the classroom. These barriers range from the lack of technological infrastructure to the absence of educational policies that encourage the continuing education of teachers.

On the other hand, examples of overcoming demonstrate that it is possible to build a more inclusive educational environment through the integration of digital technologies. Santana *et al.* (2024b, p. 3) highlight that "the school uses these genres so that the practice of writing is constructed and, consequently, literacy is achieved". This concept can be expanded to include practices aimed at the development of communicative skills in students with Autism Spectrum Disorder (ASD), using digital tools such as alternative and augmentative communication (AAC) applications.

A practical example in the classroom is the use of AAC apps to promote interaction between students with ASD and their peers. In a group activity, a teacher can utilize these

Revista ARACÊ
ISSN: 2358-2472

apps to facilitate a nonverbal student's communication, allowing them to actively participate in the activity. In this scenario, digital technologies not only help in the student's expression, but also promote socialization and inclusion, contributing to the development of cognitive and emotional skills. This practice, while exemplifying the effectiveness of digital tools, highlights the importance of trained teachers to integrate them into pedagogical planning.

Thus, it is observed that overcoming the challenges related to neuroinclusive education depends on consistent teacher training aligned with contemporary demands. As Freitas (2010, p. 60) points out, "digital technologies are symbolic instruments that can transform pedagogical practices", but their potential will only be fully realized if teachers are prepared to use them in a reflective and inclusive way.

Therefore, training teachers for neuroinclusive education requires continuous investment in training and support, as well as public policies that encourage innovation and inclusion in the school environment. The integration between neuroscience and digital technologies, as highlighted by Narciso *et al.* (2024) and Santana *et al.* (2024b), offers promising ways to address diversity in classrooms, promoting an education that respects differences and values the potential of each student.

## RESULTS AND DISCUSSIONS

The following table presents the main authors referenced in this research, highlighting the year of publication, the subject of the research and the relevance of their contributions to the field of neuroscience and neuroinclusive education:

**TABLE 1** - MAIN AUTHORS OF THE RESEARCH

| Author's Name | Year of Publication | Research Subject | Relevance to Neuroscience and Neuroinclusive Education |
|---|---|---|---|
| Coast | 2023 | Learning as a process of modification of the CNS by stimuli and experiences. | It underlies the need for teacher training based on neural plasticity. |
| Mourão-Júnior, Oliveira and Faria | 2011 | Neuroscience and development of educational interventions for inclusion. | It highlights the gap between neuroscientific theory and its educational application. |

Revista ARACÊ
ISSN: 2358-2472

| | | | |
|---|---|---|---|
| Bernardini | 2024 | Barriers and strategies in school inclusion. | Focus on inclusive practices to overcome structural and pedagogical challenges. |
| Mantoan | 2005 | Planning of inclusive practices in the school context. | It emphasizes planning as a key tool to ensure inclusion. |
| UNESCO | 1994 | Adaptation of learning to the needs of the child. | It reinforces the importance of curricular flexibility for inclusion. |
| Narciso *et al.* | 2024 | Impact of digital technologies on communication and cognitive development of autistic students. | It explores the use of technologies to enhance communicative and social skills. |
| French | 2010 | Digital technologies as material and symbolic instruments in education. | It addresses the transformative role of technologies in education. |
| Santana *et al.* | 2024 | Pedagogical practices to achieve literacy with technologies. | It shows how technology can facilitate inclusive pedagogical practices. |

**Source:** author himself.

The results obtained in this research reinforce the importance of neuroinclusive education as an essential field for the development of pedagogical practices capable of meeting the cognitive diversity present in classrooms. The main conclusions of the study highlight the need for teacher training that integrates knowledge from neuroscience and digital technologies, promoting more inclusive and effective strategies in the school context. As pointed out by Costa (2023), brain plasticity is a characteristic that allows the human brain to respond adaptively to educational interventions, highlighting the transformative potential of methodologies based on neuroscientific evidence. Thus, it is possible to say that the findings converge on the idea that the integration between neuroscience and education can promote significant results both in cognitive development and in the inclusion of students with special needs.

Revista ARACÊ
ISSN: 2358-2472

The significance of these findings lies in the recognition that school inclusion is not limited to access policies, but involves practices that consider the individual specificities of students. The relevance of digital technologies in this context is especially highlighted by Narciso *et al*. (2024), which point to its positive impact on communication, socialization, and cognitive development of students with Autism Spectrum Disorder (ASD). Thus, the research reaffirms that tools such as alternative and augmentative communication apps can play a crucial role in creating more welcoming and effective learning environments. In addition, the contributions of authors such as Bernardini (2024) and Mantoan (2005) highlight the need to overcome structural barriers and prejudices that still limit the full implementation of inclusive education.

Regarding the dialogue with other research, the results corroborate previous studies that highlight the role of digital technologies in the promotion of inclusive pedagogical practices (Freitas, 2010; Santana *et al.,* 2024). However, this study advances by integrating neuroscientific perspectives, demonstrating how understanding brain mechanisms can expand the possibilities of educational intervention. In addition, by reinforcing the importance of Individualized Educational Planning (IEP) and continuing teacher training, the findings also dialogue with the recommendations of UNESCO (1994), which emphasize the adaptation of learning to individual needs as a fundamental principle of inclusion.

Despite the relevant contributions, it is important to recognize the limitations of this study. One of the main constraints is the dependence on theoretical data and the absence of empirical studies that validate the efficacy of the proposed interventions. As pointed out by Mourão-Júnior, Oliveira and Faria (2011), the practical application of neuroscientific knowledge in the school environment is still limited, which reinforces the need for longitudinal and experimental studies to assess the real impacts of neuroinclusive strategies. Another limitation is related to the scope of the research, which focuses mainly on the use of digital technologies and may not encompass other equally relevant dimensions of inclusion, such as socio-emotional and cultural issues.

With regard to surprising or inconclusive results, the research identified a significant gap in the effective integration between neuroscience and education. Despite the advances in digital technologies and in the understanding of neurobiological processes, pedagogical practice still lacks a systematic application of this knowledge. This contradiction can be explained by the resistance to change in the educational system, as observed by Freitas (2010), and by the lack of adequate teacher training, highlighted by Bernardini (2024). The

Revista ARACÊ
ISSN: 2358-2472

absence of specific public policies also contributes to this gap, making it difficult to implement innovative practices on a large scale.

Finally, the research points to several directions for future investigations. First, it is suggested that empirical studies be carried out that evaluate the effectiveness of different digital technologies in the context of neuroinclusive education, focusing on variables such as academic performance, social interaction, and emotional development. In addition, it would be relevant to explore teacher training strategies that integrate neuroscientific and pedagogical aspects, analyzing how these trainings can impact educational practice. Another promising area is the analysis of public policies aimed at school inclusion, investigating how different cultural and socioeconomic contexts influence the implementation of inclusive practices. In this way, the field of neuroinclusive education can consolidate itself as an interdisciplinary area that effectively contributes to the construction of a truly inclusive and transformative school.

## FINAL CONSIDERATIONS

The study made it possible to answer the questions raised at the beginning of the work, confirming the relevance of the integration between neuroscience, digital technologies and pedagogical practices for the promotion of a neuroinclusive education. It was possible to understand how brain mechanisms, combined with technological tools, can be used to create educational strategies that meet the individual needs of students, especially those with Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), dyslexia and high abilities/giftedness. The research also highlighted the challenges faced in the process of teacher training and in the implementation of inclusive practices, reinforcing the importance of public policies and continuing education of teachers.

The objectives of the research were achieved by demonstrating the need to train teachers to work in an increasingly diverse and dynamic educational environment. The study reinforced that a pedagogical approach based on neuroscientific evidence, such as the use of digital technologies for communication and socialization, can contribute significantly to the cognitive and social development of students. It was found that the creation of an inclusive environment depends not only on innovative tools and methodologies, but also on a joint effort between schools, universities and educational managers to overcome structural and cultural barriers. In addition, the results confirmed

Revista ARACÊ
ISSN: 2358-2472

the importance of personalized strategies, such as Individualized Educational Planning (IEP), in promoting inclusion.

The research leaves important notes for future studies. First, it is suggested that empirical investigations evaluate the effectiveness of different neuroinclusive practices in different school contexts. Longitudinal studies could offer more cohesive data on the impact of neuroscientific and technological interventions on student learning and development. In addition, it would be relevant to explore interdisciplinary approaches that connect neuroscience, pedagogy, and psychology in order to develop formative strategies for teachers. Finally, the need to analyze the implementation of inclusive public policies in different cultural and socioeconomic contexts is highlighted, seeking to identify the factors that favor or limit the success of these initiatives.

It is concluded that neuroinclusive education has significant potential to transform the educational environment, promoting more equitable learning adapted to the needs of each student. The study reinforces that, through investment in teacher training and the application of evidence-based pedagogical practices, it is possible to build an inclusive school that values diversity and prepares students for the challenges of a plural and technological society.

Revista ARACÊ
ISSN: 2358-2472

## REFERENCES

1. ANDRADE, M. M. Introdução à metodologia do trabalho científico: elaboração de trabalhos na graduação. São Paulo: Atlas, 2010.

2. BERNARDINI, Amanda Manzoli Bertucci. Inclusão de alunos com autismo nas escolas regulares: desafios e oportunidades para a execução de práticas pedagógicas inclusivas. Mais Educação, 2024.

3. ISSN 2595-9611. Disponível em: https://doi.org/10.51778/2595-9611. Acesso em: 04 dez. 2024.

4. COSTA, R. L. S. Neurociência e aprendizagem. Revista Brasileira de Educação, v. 28, e280010, 2023. Disponível em: https://acrobat.adobe.com/id/urn:aaid:sc:EU:fa532e35-f2c6-4923-aec1-6383506472f4. Acesso em: 04 dez. 2024.

5. FONSECA, J. J. S. Metodologia da pesquisa científica. Fortaleza: UEC, 2002.

6. FREITAS, M. T. A. A perspectiva vigotskiana e as tecnologias. Educação, v. 2, p. 58-67, 2010.

7. MANTOAN, M. T. E. Inclusão escolar: o que é? Por quê? Como fazer?. São Paulo: Moderna, 2005.

8. MOURÃO-JÚNIOR, C. A.; OLIVEIRA, A. O.; FARIA, E. L. B. Neurociência cognitiva e desenvolvimento humano. Temas em Educação e Saúde, v. 7, 2011. Disponível em: https://acrobat.adobe.com/id/urn:aaid:sc:EU:b598394a-6e69-4003-9f0c-94a4d4231fbc. Acesso em: 04 dez. 2024.

9. NARCISO, R.; OLIVEIRA, F. C. N. de; ALVES, D. de L.; DUARTE, E. D.; MAIA, M. A. dos S.; REZENDE, G. U. de M. Inclusão escolar: desafios e perspectivas para uma educação mais equitativa. Revista Ibero-Americana de Humanidades, Ciências e Educação, v. 10, n. 8, p. 713–728, 2024. Disponível em: https://doi.org/10.51891/rease.v10i8.15074. Acesso em: 04 dez. 2024.

10. NARCISO, R.; SOARES, L. da S.; CHIQUERA, D.; CORRÊA, L. L.; OLIVEIRA, F. P. das C.; SILVA, W. A. da. Conexões digitais no espectro autista: explorando potencialidades e promovendo inclusão. Revista Ibero-Americana de Humanidades, Ciências e Educação, v. 10, n. 4, p. 404–418, 2024b. Disponível em: https://doi.org/10.51891/rease.v10i4.13496. Acesso em: 04 dez. 2024.

11. SANTANA, A. A.; SILVA, J. B.; RODRIGUES, D. M.; SILVA, L. G. da; PEREIRA, M. N.; SANTANA, J. S. S.; ANDRADE, C. de. O papel da família na educação: construindo pontes entre escola e lar. Revista Políticas Públicas & Cidades, v. 13, n. 2, e1010, 2024. Disponível em: https://doi.org/10.23900/2359-1552v13n2-118-2024. Acesso em: 04 dez. 2024.

Revista ARACÊ
ISSN: 2358-2472

12. SANTANA, A. A.; DIAZ, C.; MUNHOZ, R. Título do artigo. Revista LaborHistórico, v. 10, n. 2, e62158, 2024b. Disponível em: https://doi.org/10.24206/lh.v10i2.62158. Acesso em: Acesso em: 04 dez. 2024.

13. UNESCO. Declaração de Salamanca e linha de ação sobre necessidades educativas especiais. Brasília: UNESCO, 1994.