


SCHOOL CURRICULUM: REFLECTIONS ON INNOVATIVE PRACTICES AND CURRICULUM DEVELOPMENT

 <https://doi.org/10.56238/arev6n2-060>

Submitted on: 07/09/2024

Publication date: 07/10/2024

Celine Maria de Sousa Azevedo¹, José Luiz Alves², Cinthia Boeira Michels³, Dhiego Moraes Rodrigues Vieira⁴, Vanessa Morgado Madeira Caldeira⁵ and Sebastiani Stamm Hirsch Brambilla⁶

ABSTRACT

This article explores the importance of innovative practices in curriculum development, aiming to promote a more relevant and transformative education, prepared to face contemporary challenges. The central focus of the study is the integration of active methodologies and technologies in the school environment, considering the context of education in the twenty-first century and the urgent need to adapt to new social and technological demands. The research uses a bibliographic research approach, investigating the main challenges that compromise the implementation of these practices, including physical, attitudinal and institutional barriers. In addition, educational policies that seek to foster the construction of an inclusive school, capable of meeting the diversified needs of students, are discussed. The analysis allowed a detailed examination of the contributions of digital technologies and active methodologies in the teaching-learning process, revealing that their adoption can significantly enrich the curriculum, promoting not only the personalization of teaching, but also the development of socio-emotional and cognitive competencies essential for today's world. The research points out that the incorporation of these pedagogical practices transforms the educational environment into a more dynamic, collaborative and inclusive space, favoring student engagement and autonomy. It is

¹ Master's student in Emerging Technologies in Education
MUST University

E-mail: celine.msa@gmail.com
LATTES: <https://lattes.cnpq.br/7701185552314131>

² Doctoral student in Educational Sciences
Inter-American Faculty of Social Sciences (FICS)

E-mail: escolareal21@gmail.com
LATTES: <http://lattes.cnpq.br/5994079679397853>

³ Master in Education
European University of the Atlantic (UNEATLANTICO)

E-mail: cinthiamichels@hotmail.com
LATTES: <https://lattes.cnpq.br/2270033598424911>

⁴ Doctoral student in Educational Sciences
Inter-American Faculty of Social Sciences (FICS)

E-mail: dhiegomorais94@gmail.com
LATTES: <http://lattes.cnpq.br/7978684952074121>

⁵ Master in Emerging Technologies in Education
MUST University

E-mail: pedagogavanessamorgado@gmail.com
LATTES: <https://lattes.cnpq.br/0631539626967045>

⁶ Master in Teaching
University of Vale do Taquari (UNIVATES)

E-mail: sebastianistamm@gmail.com
LATTES: <http://lattes.cnpq.br/7219576253839179>

concluded that continuous teacher training is indispensable for educators to be able to adapt to pedagogical and technological innovations, which reinforces the idea of the curriculum as a dynamic and transformative instrument. This curricular repositioning is crucial for the construction of a more equitable education capable of forming citizens prepared for the challenges of contemporary society.

Keywords: Active Methodologies. Curriculum Development. Educational Technology. Pedagogical Innovation. Inclusion.

INTRODUCTION

The reformulation and revision of the educational curriculum have been central themes in discussions about improving the quality of education in several nations, and Brazil is not on the sidelines of this movement. The National Common Curriculum Base (BNCC), implemented in 2018, represented an important milestone in this process, being essential for the reorganization of curricular content and to guide the incorporation of technology into teachers' daily pedagogical practices (Narciso et al., 2024). As Nóvoa (2009) points out, the curriculum must be dynamic and adaptable to contemporary social and technological transformations, thus promoting an education capable of meeting the needs of today's society.

Although the BNCC has promoted a significant reorganization of the curriculum, the implementation of innovative practices still faces considerable challenges. These include resistance to change by some educators, the lack of adequate technological infrastructure, and the urgent need for continuous and reflective teacher training.

In this perspective, the objective of this article is to explore how pedagogical innovations can be integrated into the school curriculum, thus seeking to promote a more relevant and transformative education for students. The guiding question that guides this reflection is: how can innovative practices be applied to curriculum development to meet the demands of contemporary education? The relevance of this research lies in the urgent need to rethink the curriculum not only as a set of contents to be transmitted, but also as a living and flexible instrument, capable of responding to the rapid technological, cultural and social changes that directly affect the school environment (Silva & Santos, 2024).

For Moran (2018), the use of educational technologies, when well implemented, offers new possibilities to personalize learning, thus engaging students in a more meaningful way. Bacich and Moran (2018) corroborate this view, emphasizing that active methodologies, such as blended learning and the flipped classroom, play a crucial role in renewing the curriculum, making it more participatory and centered on the needs of students. These approaches are aligned with the idea that the curriculum should be seen as a continuous process of construction, capable of integrating knowledge and practices that prepare students for the challenges of the twenty-first century (Nóvoa, 2009).

Thus, this article proposes a critical analysis of the implementation of innovative practices in the Brazilian educational curriculum, showing how these innovations can contribute to a more inclusive, participatory education focused on the full development of

students. Thus, the investigation reinforces the importance of rethinking the curriculum as a transformative agent, capable of preparing students for an increasingly complex and interconnected world, thus responding to the demands of global society.

METHODOLOGY

The approach used was bibliographic research, as recommended by Eco (2010), allowing a detailed analysis of materials already published, such as books and scientific articles. According to Gil's (2009) guidelines, the research was organized to ensure the systematization and critical analysis of the data collected, providing a solid theoretical and practical basis on the subject.

The method adopted involved conducting a literature review through documentary and bibliographic research, using secondary sources, such as academic documents on innovative practices in curriculum development. In addition, scientific articles from databases such as *Web of Science*, *SciELO* and *Google Scholar* were examined. To guide the search, keywords such as "pedagogical innovation", "school curriculum" and "curriculum development" were used. Inclusion and exclusion criteria were established to ensure the relevance and quality of the selected materials.

After collection, the data were systematized and examined in detail. The analysis phase involved several important steps. At first, the data were organized and classified according to the main emerging themes. Then, a comparison was made between several pedagogical approaches, allowing the identification of significant similarities and differences. In addition, the results were integrated in order to provide a comprehensive view of innovative practices in curriculum development. This process included the identification of patterns and trends, as well as a gap in research on how institutional and attitudinal challenges impact the implementation of innovative practices.

The analysis phase included the classification of the main themes, the comparison between different approaches and the integration of the results, with the aim of deepening the understanding of innovative practices in curriculum development. From this, the specific characteristics of innovative practices, such as hybrid teaching and the flipped classroom, were addressed, highlighting their positive effects and how each of them can be adapted to the Brazilian educational context. This process made it possible to build a robust theoretical base, useful both for practical recommendations and for future research in the area.

THEORETICAL FRAMEWORK

This theoretical study examines innovative practices in curriculum development and their implications for current education. It investigates how these practices can be incorporated into the school curriculum, analyzing theories and pedagogical models that justify the need for a flexible and adaptable curriculum. In addition, it evaluates the contributions of new methodologies and technologies to educational effectiveness, as well as the challenges and opportunities that arise with their implementation.

This article highlights the contribution of authors such as Caldeira, Silva, Santos Arruda and Ribeiro (2024), address the characteristics and challenges of integrating technology in the school environment, highlighting the role of the teacher in *online* teaching. New technological methodologies emerge to meet the demands of contemporary society, promoting social and cultural changes and offering new perspectives on the learning process. Therefore, the increasing use of technologies facilitates teaching, changing the way teachers plan and conduct their classes and how students interact and learn.

With technological advances, teachers have access to various tools and methodologies that directly impact the quality of teaching and the development of cognitive skills. It is essential to engage students in a meaningful, practical, and stimulating way. The implementation of the Flipped Classroom and Hybrid Learning faces specific challenges, such as the need for adequate technological infrastructure and teacher training.

Narciso, Fernandes, Souza, Silva, Átila, Silva F, Rezende, Alves, Linhares and Silva, J.R (2024) examine how the National Common Curricular Base (BNCC) influences teacher education, with an emphasis on curricular integration and interdisciplinarity. The research analyzes the necessary adaptations in teacher training to meet the guidelines of the BNCC (Brasil, 2018), highlighting the challenges and effective strategies. Students' and educators' resistance to change can also affect the effectiveness of these methodologies. Strategies to overcome these barriers include continuous training and the creation of more flexible learning environments.

Through a literature review, the authors identify the importance of interdisciplinarity and curricular integration in current education, in addition to emphasizing the need to transform pedagogical practices and invest in the continuous training of educators.

In addition, Nóvoa (2009), in turn, emphasizes the importance of continuous and reflective teacher training to deal with the demands of a dynamic and innovative curriculum. Moran (2018) advocates the use of educational technologies to personalize learning and

engage students in a more meaningful way. Bacich and Moran (2018) also discuss the impact of active methodologies, such as blended teaching and the flipped classroom, on curriculum development.

ACTIVE METHODOLOGIES IN CURRICULUM DEVELOPMENT

Innovative practices in curriculum development have proven to be essential for the modernization and effectiveness of teaching. These methodologies not only make learning more dynamic and engaging, but also meet the needs of a society in constant transformation.

Active methodologies encompass a conception of the teaching and learning process that considers the effective participation of students in the construction of their learning, valuing the different ways in which they can be involved in this process so that they learn better, at their own pace, time and style (Bacich; Moran, 2018, p.23).

Below, we will discuss some of the main innovative practices that have been implemented in the Brazilian educational curriculum. These are: the Flipped Classroom, Hybrid Teaching, Station Rotation, Project-Based Learning (PBL), Gamification and *Makerspaces*.

The Flipped Classroom is a methodology that inverts the traditional teaching logic. Students study the theoretical content at home, through videos, readings and other materials, and use the time in the classroom for practical activities, discussions and problem solving.

The central idea of the flipped classroom is that the explanation of the content comes first, sought/created by the student, often remotely (from the perspective of the hybrid teaching model), and during the class, activities are carried out that allow the consolidation of learning (Sefton; Galani, 2022, p.88).

This approach allows students to take a more active role in their learning and allows the teacher to act as a facilitator, guiding and supporting students in a more personalized way.

Blended Learning combines face-to-face and online teaching, providing a more flexible learning experience tailored to the individual needs of students. "The combination of active methodologies with flexible and hybrid models brings important contributions to the design of current solutions for today's learners (Bacich; Moran, 2018, p.41)". This methodology allows students to learn at their own pace and style, using digital resources to

complement and enrich face-to-face teaching. Blended Learning also facilitates the personalization of teaching, catering to the different needs and learning styles of students.

In Station Rotation, students move between different learning stations, each with specific activities. This methodology promotes the diversity of learning experiences and allows students to work on different types of activities, from practical exercises to group discussions. Station Rotation also makes it easy to customize teaching, allowing students to advance at their own pace.

Project-Based Learning (PBL) engages students in real, meaningful projects that require the application of knowledge and skills in practical contexts. This methodology develops critical and collaborative skills, such as problem-solving, critical thinking, and communication. PBL also makes learning more relevant and motivating by connecting curriculum content with real-world situations.

Gamification uses game elements, such as scores, levels, and rewards, to make learning more engaging and motivating. This methodology can increase student motivation, making the learning process more fun and competitive. Gamification can also be used to promote collaboration and teamwork, by creating challenges and activities that require the participation of all students.

Makerspaces are spaces dedicated to creation and experimentation, where students can develop hands-on projects and explore their technical and creative skills. These spaces promote hands-on learning and the development of skills such as problem-solving, creativity, and innovation. *Maker Spaces* also encourage collaboration and teamwork by providing an environment where students can share ideas and work together on projects.

The integration of digital technologies into the educational curriculum enriches the teaching and learning process, making it more interactive and accessible. Digital tools, such as online learning platforms, educational apps, and multimedia resources, can be used to complement face-to-face teaching and provide new ways of learning. Thus, the use of digital technologies also facilitates the personalization of teaching, allowing students to learn at their own pace and style.

Table 2: Innovative practices in curriculum development:

Innovative Practice	Description	Source
Flipped Classroom Room	Students study the theoretical content at home and use the time in class for practical activities and discussions.	Innovation Center for Brazilian Education (CIEB)
Ensino Hybrid	It combines face-to-face and online teaching, allowing students to learn at their own pace and style.	Innovation Center for Brazilian Education (CIEB)
Rotation by Stations	Students move between different learning stations, each with specific activities.	Innovation Center for Brazilian Education (CIEB)
Project-Based Learning (PBL)	Students work on real, meaningful projects, developing critical and collaborative skills.	Educational Dialogue Magazine
Gamification	It uses game elements to make learning more engaging and motivating.	Educational Dialogue Magazine
Maker Spaces	Spaces dedicated to creation and experimentation, promoting hands-on learning and the development of technical and creative skills.	Innovation Center for Brazilian Education (CIEB)
Use of Digital Technologies	It integrates digital tools to enrich the teaching and learning process, making it more interactive and accessible.	Innovation Center for Brazilian Education (CIEB)

Source: Prepared by the authors.

These innovative practices are fundamental for curriculum development, as they promote more active, collaborative, and personalized learning. By integrating these methodologies into the curriculum, Brazilian education advances in the construction of a more modern, inclusive, and effective educational system, prepared to meet the demands and challenges of the twenty-first century.

THE ROLE OF THE CURRICULUM IN BRAZILIAN EDUCATION AND THE IMPORTANCE OF INCLUSION

The curriculum in Brazilian education is a fundamental element for the organization and direction of the educational process. It is guided by the National Common Curriculum Base (BNCC), which establishes the rights and learning objectives for all students in the country, ensuring a comprehensive and equitable education.

In recent years, there has been a growing adoption of active methodologies in the Brazilian educational curriculum. These methodologies place the student at the center of

the learning process, promoting a more active and engaged participation. In this context, active methodologies play a crucial role in facilitating inclusion. By placing the student at the center of the learning process, these methodologies allow for the personalization of teaching, adapting to different needs and learning styles. In addition, they promote a collaborative environment, where all students can contribute and learn from each other.

Inclusion is a fundamental principle in Brazilian education, ensuring that all students, regardless of their physical, intellectual, social, or cultural conditions, have access to quality education. The National Common Curriculum Base (BNCC) reinforces the importance of an inclusive curriculum that meets the needs of all students and promotes equity.

Assistive technology is an essential component for educational inclusion. Tools such as screen reading software, sound amplification devices, adapted keyboards and alternative communication applications allow students with disabilities to actively participate in school activities. These technologies not only facilitate access to curriculum content but also promote student autonomy and independence.

Changes in the educational posture are also fundamental to reaffirm inclusion as an essential value in Brazilian education. Educators and school managers need to adopt an inclusive vision that recognizes and values the diversity of students. This involves the continuous training of teachers to deal with the different needs of students, the adaptation of physical spaces, and the implementation of policies and practices that promote inclusion.

According to Moreira and Candau (2007), the educator plays a crucial role in the construction of school curricula, being one of the main responsible for their materialization in the classrooms. Therefore, it is essential to promote continuous discussions and reflections on the curriculum, both planned and hidden. As education professionals, we have the obligation to participate critically and creatively in the development of more attractive, democratic, and productive curricula.

By integrating active methodologies and assistive technology into the curriculum, Brazilian education advances in building a more inclusive and equitable educational system. These practices not only improve the quality of education, but also contribute to the formation of a more just and egalitarian society, where everyone has the opportunity to learn and develop fully.

For a better understanding of the research, we present a brief history of concepts such as Inclusion and assistive technologies through official documents - listed in the

following table - showing the changes in the educational posture in reaffirming inclusion as essential for Brazilian education.

Table 1 - Main Educational Guidelines in Research

Author	Bibliographic Reference	Year of Publication	Research Subject	Relevance of the Research
United Nations (UN)	Universal Declaration of Human Rights. Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights	1948	Human rights	It establishes fundamental human rights principles, including the right to inclusive education.
Brazil	Constitution of the Federative Republic of Brazil of 1988. Available at: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm	1988	National Constitution	It includes provisions on education as a right for all, promoting educational inclusion.
Brazil	Law No. 9,394, of December 20, 1996. It establishes the guidelines and bases of national education. Available at: http://www.planalto.gov.br/ccivil_03/leis/l9394.htm	1996	Guidelines and Bases of Education	It regulates the Brazilian educational system, highlighting the importance of inclusive education.
Brazil	Secretariat of Human Rights of the Presidency of the Republic (SDHPR). Technical Aids Committee (2007). Available at: https://www.gov.br/mdh/pt-br/navegue-por-temas/pessoa-com-deficiencia/tecnologia-assistiva/comite-de-ajudas-tecnicas	2007	Assistive Technology	It defines and promotes the use of assistive technologies to improve the functionality and inclusion of people with disabilities.
United Nations (UN)	Convention on the Rights of Persons with Disabilities. Available at: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html	2008	Rights of Persons with Disabilities	It reinforces the need for inclusive and accessible education systems for people with disabilities.
Brazil	Law No. 13,146, of July 6, 2015. Establishes the Brazilian Law for the Inclusion of Persons with Disabilities (Statute of Persons with Disabilities). Available at: http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2015/lei/l13146.htm	2015	Inclusion of Persons with Disabilities	It establishes rights and guarantees for the inclusion of people with disabilities, including in education.

Brazil	Ministry of Education. National Policy on Special Education in the Perspective of Inclusive Education. Available at: http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=16690-politica-nacional-de-educacao-especial-na-perspectiva-da-educacao-inclusiva&Itemid=30192	Date not specified	Special education	Provides guidelines for the inclusion of students with special educational needs in mainstream schools.
--------	--	--------------------	-------------------	---

Source: Prepared by the authors.

Reflection on the curriculum is essential to ensure that it meets the needs of all learners and promotes inclusive and equitable education. Laws that expand theoretical knowledge about inclusion and assistive technologies play a crucial role in this process. They provide practical guidance for implementing inclusive practices, ensuring that all students have access to the same learning opportunities.

In addition, the review of works and documents related to these laws offers a cohesive theoretical basis, fundamental for research on the impact of these guidelines on teacher education and pedagogical practice. This theoretical basis allows educators and school administrators to better understand the needs of students and develop effective strategies to meet them.

By reflecting on the curriculum, it is possible to identify areas that need improvement and adapt pedagogical practices to include all students, regardless of their conditions. This continuous reflection is vital for building a fairer and more inclusive educational system, where diversity is valued and everyone has the opportunity to learn and develop fully.

The role of the educator in the curricular process is, therefore, fundamental. He is one of the great architects, whether he likes it or not, of the construction of the curricula that materialize in schools and classrooms. Hence the need for constant discussions and reflections, in the school, about the curriculum, both the formally planned and developed curriculum and the hidden curriculum. Hence our obligation, as education professionals, to participate critically and creatively in the elaboration of curricula that are more attractive, more democratic, and more fruitful (Moreira & Candau, 2007, p.19).

Therefore, the integration of laws on inclusion and assistive technologies into the curriculum not only enriches theoretical knowledge, but also provides the necessary tools for inclusive pedagogical practice, reaffirming the importance of an education that welcomes and values all students.

ANALYSIS AND RESULTS

The results of the research indicate that the implementation of innovative practices in Brazilian curriculum development has proven effective in transforming the teaching-learning process. The integration of methodologies such as the Flipped Classroom, Blended Learning, and Project-Based Learning was highlighted for its ability to engage students and promote personalization of learning. These practices not only facilitate active and collaborative learning but also prepare students for the challenges of contemporary society by offering a flexible approach that is tailored to their needs.

In addition, the analysis of the reviewed studies revealed that institutional and attitudinal barriers, such as resistance to change by some educators and the lack of adequate technological infrastructure, still represent significant obstacles to the full adoption of these methodologies. However, educational policies, such as the National Common Curriculum Base (BNCC), have played a crucial role in promoting these practices, offering clear guidelines for their implementation.

Another aspect analyzed is the importance of continuous and reflective teacher training, highlighted by authors such as Nóvoa (2009), who state that the success of curricular innovations is directly linked to teacher training. This includes both familiarization with new technologies and the ability to incorporate active methodologies into their pedagogical practices.

Educational inclusion was also a central point in the analyses, with an emphasis on the use of assistive technologies to ensure that students with special needs can actively participate in the educational process. Tools such as screen reading software and sound amplification devices were mentioned as essential for the promotion of a truly inclusive environment, in line with the BNCC guidelines.

CONCLUSION

In conclusion, this study strongly highlights the importance of innovative practices in curriculum development as an effective means to respond to the growing demands of contemporary education. Methodologies such as Blended Learning, the Flipped Classroom, and Gamification not only demonstrate but also confirm that, when implemented properly, they have the potential to significantly transform the way students interact with content and each other. In this way, these practices promote a more dynamic and relevant education, capable of engaging students in a deeper and more meaningful way.

However, it is crucial to recognize that the success of these innovations is intrinsically linked to overcoming institutional challenges, as well as to the need for continuous and adequate teacher training. These, in turn, must be properly prepared to face and adapt to the technological and social transformations in constant evolution. Public policies, particularly the National Common Curriculum Base (BNCC), play a key role in providing a framework that guides and structures the incorporation of these innovative practices into the school curriculum. This thus ensures that the educational process is not only inclusive but also equitable.

Therefore, it is crucial that Brazilian schools continue to invest in pedagogical innovation and teacher training. This investment is essential to promote an education that, in addition to meeting the individual needs of students, also adequately prepares them to face the challenges of the twenty-first century. Thus, through continuous commitment to innovation and training, it will be possible to build an educational system that is truly transformative and effective in preparing students for an increasingly complex and demanding future.

REFERENCES

1. Almeida, M. E. B. de., & Silva, M. da G. M. da. (2011). *Currículo, tecnologia e cultura digital: espaços e tempos de web currículo*. Disponível em: <https://revistas.pucsp.br/index.php/curriculum/article/>. Acessado em 25 de junho de 2024.
2. Bacich, L., & Moran, J. M. (Orgs.). (2018). *Metodologias ativas para uma educação inovadora: uma abordagem teórico-prática*. Porto Alegre: Penso. E-book digital.
3. Brasil. (1988). *Constituição da República Federativa do Brasil*. Disponível em: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Acessado em: 10 de setembro de 2024.
4. Brasil. (1996). *Lei n.º 9.394, de 20 de dezembro de 1996. Estabelece a Lei de Diretrizes e Bases da Educação Nacional*. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/l9394.htm. Acesso em: 10 de setembro de 2024.
5. Brasil. Secretaria de Direitos Humanos da Presidência da República (SDHPR). (2007). *Comitê de Ajudas Técnicas*. Disponível em: <https://www.gov.br/mdh/pt-br/navegue-por-temas/pessoa-com-deficiencia/tecnologia-assistiva/comite-de-ajudas-tecnicas>. Acesso em: 10 de setembro de 2024.
6. Brasil. (2015). *Lei n.º 13.146, de 6 de julho de 2015. Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência (Estatuto da Pessoa com Deficiência)*. Disponível em: http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2015/lei/l13146.htm. Acesso em: 10 de setembro de 2024.
7. Brasil. Ministério da Educação. (2008). *Política Nacional de Educação Especial na Perspectiva da Educação Inclusiva*. Disponível em: http://portal.mec.gov.br/index.php?option=com_docman&view=download&alias=16690-politica-nacional-de-educacao-especial-na-perspectiva-da-educacao-inclusiva&Itemid=30192. Acesso em: 10 de setembro de 2024.
8. Caldeira, V. M. M., Silva, J. R., Santos, L. C. B., Arruda, L. M., & Ribeiro, R. V. (2024). *Novas tendências educacionais e o professor no contexto tecnológico*. Revista Amor Mundi, 5(2), 87–97. <https://doi.org/10.46550/amormundi.v5i2.403>
9. Eco, U. (2010). *Como se faz uma tese* (23ª ed., Gilson César Cardoso de Sousa, Trad.). São Paulo: Perspectiva.
10. Gil, A. C. (2009). *Métodos e técnicas de pesquisa social* (6ª ed.). São Paulo: Atlas.
11. Moran, J. (2018). *A educação que desejamos: novos desafios e como chegar lá*. São Paulo: Papyrus.
12. Moreira, A. F. B., & Candau, V. M. (2007). *Indagações sobre currículo: cultura*. Brasília: MEC/SEB. Recuperado em 1 de novembro de 2022, de texto03_520.indd (mec.gov.br).

13. Narciso, R., Fernandes, A. B., de Souza, Átila, da Silva, F. P., da Silva, G. V., Rezende, G. U. de M., Alves, J. L., Linhares, J. R., & Silva, M. da C. (2024). Formação de professores e a BNCC: integração curricular e interdisciplinaridade. **Caderno Pedagógico, 21*(2)*, e2789. <https://doi.org/10.54033/cadpedv21n2-074>
14. Novoa, A. (2009). **Professores: imagens do futuro presente**. Lisboa: Educa.
15. Oliveira, A. M. de. (2013). **Escola, currículo e tecnologia: conexões possíveis**. Disponível em: <https://seer.dppg.cefetmg.br/index.php/revistaet/article/view/603>. Acessado em: 16 de setembro de 2024.
16. Organização das Nações Unidas (ONU). (1948). **Declaração Universal dos Direitos Humanos**. Disponível em: <https://www.un.org/en/about-us/universal-declaration-of-human-rights>. Acesso em: 11 de setembro de 2024.
17. Organização das Nações Unidas (ONU). (2008). **Convenção sobre os Direitos das Pessoas com Deficiência**. Disponível em: <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>. Acesso em: 1 de setembro de 2024.
18. Scherer, S., & Brito, G. da S. (2020). **Integração de tecnologias digitais ao currículo: diálogos sobre desafios e dificuldades**. Disponível em: <https://www.scielo.br/j/er/a/FCR5M56M6Chgp4xknp>. Acessado em 25 de agosto de 2022.
19. Sefton, A. P., & Galini, M. E. (2022). **Metodologias ativas: desenvolvendo aulas ativas para uma aprendizagem significativa**. Rio de Janeiro: Freitas Bastos. E-book. Disponível em: <https://plataforma.bvirtual.com.br>. Acesso em: 6 de agosto de 2024.