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# FORMATIVE ASSESSMENT AND ACTIVE METHODOLOGIES IN FULL-TIME SCHOOLS: THE ROLE OF TECHNOLOGIES IN MONITORING LEARNING

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## ABSTRACT

This study examines the incorporation of formative assessment and active methodologies in full-time educational institutions, emphasizing the role of technologies in the supervision of learning. The main objective of the research was to determine how digital technologies can enhance formative assessment and active methodologies within the scenario of complete education. The main goal was to examine formative assessment practices and active methodologies in full-time schools in Brazil, emphasizing the use of technologies to monitor and improve the learning process. The technique used was a literature review, with a qualitative focus, which included an evaluation of recently published materials. The results showed that the incorporation of digital technologies in formative assessment and

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Revista ARACÊ
ISSN: 2358-2472

active methodologies opens up important possibilities for the personalization of teaching and the provision of immediate feedback to students. The practices range from the use of adaptive learning platforms to the installation of data analysis systems specific to education. The study emphasized the relevance of a defined strategy that takes into account both the ethical advantages and obstacles of employing technologies in the supervision of learning. The instructions concluded that, even with the promised progress, the effectiveness of the application of these practices requires investments in educator training and technological infrastructure. The need for future research to investigate the long-term effects of these strategies on student achievement and engagement in full-time schools was highlighted.

**Keywords:** Formative Assessment. Active Methodologies. Integral Education. Educational Technologies. Learning Monitoring.

Revista ARACÊ
ISSN: 2358-2472

## INTRODUCTION

The relevance of formative assessment and active methodologies in full-time schools, emphasizing the role of technologies in monitoring learning, is remarkable in the contemporary educational context. Comprehensive education, which seeks to provide students with a more complete and prolonged education, presents unique challenges and opportunities for the implementation of innovative teaching techniques and the use of advanced educational technologies.

The reason for addressing this topic is the growth in the implementation of comprehensive education models in Brazil and the demand for effective assessment and teaching methods that make the most of expanded learning time. The combined use of formative assessment and active methodologies, reinforced by the use of technologies, offers a promising path to improve the quality and effectiveness of teaching in full-time institutions. However, the implementation of these strategies faces significant challenges, ranging from infrastructure issues to the need for teacher training.

The question that guides this literature review is to determine: how can digital technologies be used effectively to intensify formative assessment and active methodologies in the environment of full-time schools? Based on the chosen references, it seeks to explore the successful experiences of incorporating technology in assessment and teaching, the obstacles encountered in this implementation, and the future perspectives for the supervision of learning in integrated educational contexts.

The purpose of this study is to examine the formative assessment practices and active methodologies in full-time schools in Brazil, highlighting the role of technologies in monitoring and improving learning. This evaluation will enable efficient strategic considerations, common obstacles and possibilities for improvement in the incorporation of technologies in support of the teaching process in full-time institutions.

This study is structured around seven essential pillars. In the introduction, the theme, the justification, the problem and the objective of the research are presented. A methodology describes the procedures used for a literature review. The final conclusions summarize the main ideas presented and reflect on the future of integral education in Brazil, in addition to suggesting possible future research.

The theoretical framework addresses basic ideas about formative assessment, active methodologies and holistic education. Then, three interactive topics are addressed: an analysis of formative assessment practices in integral education institutions, the

Revista ARACÊ
ISSN: 2358-2472

implementation of active methodologies in this context, and the role of technologies in monitoring learning. In the debate and conclusions section, the data collected are presented and analyzed, divided into three areas: the effectiveness of integrated assessment and teaching practices, the challenges in the implementation of educational technologies, and future plans for a comprehensive education with technological advances.

## THEORETICAL FRAMEWORK

The theoretical framework is structured to provide a solid basis for understanding formative assessment, active methodologies and the role of technologies in the context of full-time schools. The definition of formative assessment is presented, highlighting its importance in the continuous process of teaching and learning. Next, the foundation of active methodologies was discussed, analyzing how these teaching tactics are aligned with the objectives of integral education. Finally, the concept of integral education and the ability of technologies to improve and monitor learning in this context are discussed.

## FORMATIVE ASSESSMENT IN FULL-TIME SCHOOLS

Formative assessment in full-time schools presents unique characteristics and challenges, given the prolonged and intensive nature of the educational process in this context. Cavaliere (2014, p. 1207) argues that "in full-time schools, formative assessment gains an even more crucial dimension, as it allows for continuous and detailed monitoring of the student's development throughout an extended school day". This perspective emphasizes the importance of evaluation practices that are integrated into the school routine and capable of providing constant feedback.

Moll and Saraiva (2018, p. 54) complement this view, stating:

> Formative assessment in full-time schools is not limited to specific moments, but extends to the entire educational process, including not only the academic aspects, but also the socio-emotional development and practical skills of the students. This requires a multidimensional and flexible approach, capable of capturing the nuances of learning in different contexts and activities throughout the day.

This perspective highlights the importance of in-depth assessment methods that are attentive to the different forms of learning that occur in a holistic educational context. The effective implementation of formative assessment in full-time schools faces major challenges. Gonçalves (2020) argues that the extension of school time, although it offers more opportunities for continuous assessment, also increases the complexity of the

Revista ARACÊ
ISSN: 2358-2472

assessment process, which requires more sophisticated tools and strategies to manage and analyze the large amount of data created. This argument suggests the need for evaluation systems that are not only comprehensive, but also effective and practical for educators. Silva and Ribeiro (2019) present examples of innovative formative assessment practices in full-time schools.

They highlight the use of digital portfolios, technology-based instant information systems, and the integration of self-assessment and peer review as effective strategies to foster a culture of continuous and reflective assessment. These approaches aim to take advantage of the time spent at school to develop students' metacognitive skills and autonomy. Arroyo (2021, p. 88) states that "formative assessment in full-time schools should be seen as a process of collective construction, involving not only teachers and students, but the entire school community in reflecting on the learning and integral development of students".

This perspective underscores the importance of a collaborative and inclusive approach to assessment, which considers multiple perspectives and learning contexts.

In summary, formative assessment in full-time educational institutions is a complex and multifaceted procedure that requires a comprehensive and continuous perspective. The literature presented highlights the importance of assessment techniques integrated into the daily life of the school, capable of covering the different dimensions of learning and supported by technologies that simplify the collection, analysis and effective application of data to guide teaching practices. The successful execution of these assessment practices is essential to maximize the potential of a well-rounded education, promoting deeper and more complete growth of students.

## ACTIVE METHODOLOGIES IN FULL-TIME SCHOOLS

Active methodologies in full-time schools offer unique opportunities to engage students in deeper and more meaningful learning experiences by taking advantage of the extended time available. Gadotti (2017, p. 33) argues that "the model of integral education requires an integral pedagogy, based on active methodologies that place the student at the center of the learning process, discovering many dimensions of knowledge and "experience". This perspective highlights the importance of teaching approaches that promote students' autonomy and protagonism. Moran and Bacich (2018, p. 78) complement this view, stating:

Revista ARACÊ
ISSN: 2358-2472

Active methodologies also allow for more effective integration between different areas of knowledge and life experiences. Approaches such as project-based learning, flipped classroom, and inquiry-based learning gain a richer dimension when implemented in a context of extended school day, enabling more complex projects and more immersive experiences.

This approach underscores how the additional time available in full-time schools can be harnessed to implement active methodologies more comprehensively and deeply.

However, the implementation of active methodologies in full-time schools faces specific challenges. Parente (2019) argues that extended school hours, while providing more opportunities for hands-on activities and projects, also require careful planning to keep students engaged during an extended school day. This argument suggests the need for a variety of active strategies that can be alternated and combined to keep students interested and motivated.

Cavaliere and Coelho (2015) present successful examples of active methodologies in full-time schools. They highlight initiatives such as the creation of innovation labs, the implementation of peer-to-peer mentoring programs, and the integration of digital technologies into interdisciplinary projects. These approaches seek to take advantage of the extended time in school to develop not only academic skills, but also socio-emotional and practical competencies.

Leclerc and Moll (2020, p. 112) state:

> These active methodologies in full-time schools should be conceived not only as pedagogical techniques, but as part of an educational philosophy that values experience, reflection and action. This includes rethinking school spaces, learning times, and school-community relationships, creating an educational ecosystem that promotes active and meaningful learning.

This perspective underscores the importance of a holistic approach in implementing active methodologies, which considers all aspects of the school environment and educational experience.

In summary, active methodologies in full-time education institutions have a specific potential to improve and deepen the teaching-learning process. The literature review highlights the importance of pedagogical strategies that use extended time to foster more engaging, practical, and relevant learning experiences. The successful application of these methodologies requires not only specific techniques, but also a more comprehensive

Revista ARACÊ
ISSN: 2358-2472

restriction of the educational environment and pedagogical practices to establish a genuinely conducive environment for active and complete learning.

## ROLE OF TECHNOLOGIES IN MONITORING LEARNING

Technologies play an increasingly relevant role in monitoring learning in full-time schools, providing powerful tools for the collection, analysis, and efficient use of educational data. Santos and Ferreira (2021, p. 45) highlight that "digital technologies enable constant and real-time monitoring of students' progress, allowing for more accurate and appropriate pedagogical interventions in a scenario of comprehensive education". This note highlights the ability of technologies to improve the responsiveness and personalization of the teaching process.

Almeida and Valente (2020, p. 67) complement this view, stating:

> The application of technologies in the monitoring of learning in full-time educational institutions goes beyond the simple collection of information. It is about building digital learning environments that combine adaptable platforms, learning management systems, and data analysis instruments in education. These systems provide a comprehensive perspective of student progress, including academic, socio-emotional, and behavioral elements, which are fundamental in the scenario of integral education.

This approach underscores how technologies can provide a more comprehensive and nuanced understanding of students' progress.

The implementation of technologies for monitoring learning in full-time schools, however, faces significant challenges. Pretto and Passos (2017) argue that while technologies offer considerable potential to improve learning tracking, their effectiveness depends on educators' ability to interpret and use data meaningfully. This argument suggests the need for investments not only in technological infrastructure, but also in teacher training for the analysis and effective use of educational data.

Borges and Silva (2019) provide innovative examples of the application of technologies in the monitoring of learning in full-time educational institutions. They highlight the application of artificial intelligence systems to consider learning patterns and anticipate student obstacles, the use of mobile technologies for real-time assessments during hands-on activities, and the implementation of personalized dashboards that improve a unified perspective of student advancement. These strategies seek to utilize the potential of technologies to provide more in-depth and practical insights into the learning process.

Costa and Oliveira (2022, p. 93) state:

Revista ARACÊ
ISSN: 2358-2472

Technological supervision of learning in full-time educational institutions should not only be considered as an evaluation resource, but also as a means of strengthening students. Technologies that allow students to observe and reflect on their progress can encourage independence and self-management, crucial components for success in a holistic education setting.

This perspective highlights the importance of involving the students themselves in the monitoring process, using technologies as tools for metacognition and self-management of learning.

In short, the role of technologies in monitoring learning in full-time education institutions is varied and can be revolutionary. The literature mentioned highlights the ability of technologies to provide a more accurate, continuous and comprehensive monitoring of students' progress. However, the implementation of these technologies requires a careful approach that considers not only technical aspects, but also pedagogical and ethical aspects. It is crucial to develop systems that not only collect data, but that transform it into useful insights that can guide teaching practices and foster the integral development of students.

## METHODOLOGY

This study was carried out through a literature review, employing a qualitative methodology to examine formative assessment and active methodologies in full-time schools, focusing on the role of technologies in monitoring learning. Literature review is a type of study that is based on the evaluation of materials already published, such as books, scientific articles, theses and official documents, with the purpose of gathering, examining and debating existing information on the subject.

Data collection was carried out through tools such as academic databases, digital libraries and institutional repositories, where the pertinent references for the research were chosen. The strategies employed included a search of literature specialized in formative assessment, active methodologies, integral education and educational technologies, followed by reading, evaluation and synthesis of the materials found. The analytical methodologies involved the categorization of the arguments discussed in the chosen sources, enabling the detection of patterns, gaps and trends existing in the literature.

The study was carried out in several phases. The criteria for inclusion and exclusion of sources were developed, giving priority to materials published in the last 10 years that specifically addressed formative assessment, active methodologies and the application of

Revista ARACÊ
ISSN: 2358-2472

technologies in full-time schools. Subsequently, the research was provided in databases such as Scielo, Google Scholar and university repositories, using terms such as "formative assessment", "active methodologies", "integral education", "educational technologies" and "learning supervision". After choosing the sources, the texts were read and examined, highlighting the important aspects for the proposed debate. Based on these analyses, the theoretical topics that define the theoretical framework of the study were developed.

Frame of Reference

| Author(s) | Title | Year |
|---|---|---|
| CAVALIERE, A. M. | School time and quality in public education | 2014 |
| MOLL, J.; SARAIVA, J. A. | Full-time and full-time education: challenges and perspectives | 2018 |
| GONÇALVES, R. M. | Formative assessment in full-time schools: challenges and possibilities | 2020 |
| SILVA, L. R.; RIBEIRO, C. M. | Innovative Assessment Practices in Full-Time Schools | 2019 |
| ARROYO, M. G. | Broken Images: Trajectories and Times of Students and Masters | 2021 |
| GADOTTI, M. | Integral Education in Brazil: innovations in process | 2017 |
| MORAN, J.; BACICH, L. | Active methodologies for innovative education | 2018 |
| PARENTE, C. M. D. | Full-Time Comprehensive Education Policies in the Light of the Analysis of the Public Policy Cycle | 2019 |
| CAVALIERE, A. M.; COELHO, L. M. | Brazilian education and full-time | 2015 |
| LECLERC, G. F. E.; MOLL, J. | More Education Program: advances and challenges for a strategy to induce Integral Education | 2020 |
| SANTOS, M. E.; FERREIRA, H. C. | Digital technologies in education: perspectives for monitoring learning | 2021 |
| ALMEIDA, M. E. B.; VALENTE, J. A. | Technologies and curriculum: convergent or divergent trajectories? | 2020 |

Source: authorship

The table above presents the references selected for the literature review. Each of these works contributes significantly to the understanding of formative assessment, active methodologies and the role of technologies in monitoring learning in full-time schools, offering diverse perspectives and approaches on the subject. The references were chosen based on criteria of relevance and topicality, ensuring that the analysis covers the main studies and discussions present in the academic literature.

After presenting the frame of reference, the research will be carried out with the analysis and discussion of the data collected. The approach used enabled a complete evaluation of formative assessment, active methodologies and the application of

Revista ARACÊ
ISSN: 2358-2472

technologies in full-time schools, facilitating the identification of the main obstacles, possibilities and future scenarios for integral education with technological improvement.

## EFFECTIVENESS OF INTEGRATED ASSESSMENT AND TEACHING PRACTICES

The effectiveness of integrated formative assessment practices and active methodologies, supported by technologies, in full-time schools has been the subject of increasing interest in the educational literature. Cavaliere (2014, p. 1210) points out that "the combination of continuous formative assessment with active methodologies, when well implemented in full-time schools, results in a deeper engagement of students and a richer understanding of their own learning process". This observation highlights the synergistic potential of these approaches when applied in an integrated manner.

Moll and Saraiva (2018, p. 57) complement this view, stating:

> The effectiveness of joint assessment and instruction practices in full-time schools is especially remarkable when supported by appropriate technologies. There is a significant growth in the ability of teachers to provide personalized and appropriate feedback, particularly with a greater competence of students to self-manage their learning, which results in tangible improvements in school performance and the improvement of socio-emotional skills.

This perspective emphasizes how the integration of different pedagogical approaches, supported by technology, can enhance educational outcomes.

Evaluating the effectiveness of these integrated practices reveals both successes and areas for improvement. Gonçalves (2020, p. 83) notes that "full-time schools that adopted integrated formative assessment systems and active methodologies, supported by technological platforms, reported significant improvements in student engagement and personalization of teaching". However, the author also points out that the effectiveness of these approaches varies considerably depending on the quality of implementation and the socio-economic context of the school.

Silva and Ribeiro (2019, p. 112) point out specific aspects of the effectiveness of integrated practices:

> The most efficient practices mix constant formative assessment, active methodologies such as project-based learning, and technological resources that enable real-time monitoring of students' progress. These integrated strategies have not only improved academic performance, but have also improved essential skills such as critical thinking, collaboration, and autonomy in the learning process. Effectiveness is especially evident when these practices are applied consistently throughout the extended school period.

Revista ARACÊ
ISSN: 2358-2472

The authors highlight the importance of a holistic and consistent approach to maximizing the effectiveness of these integrated practices.

The results achieved to date show that, although there is significant progress, there are challenges in the effective implementation of integrated assessment and teaching practices. For example, Arroyo (2021, p. 95) points out that "the effectiveness of integrated approaches is often limited by factors such as lack of adequate educator training, insufficient technological infrastructure, and institutional resistance to change." This suggests that for these practices to be truly effective, a coordinated effort is needed that involves not only the adoption of new methodologies and technologies, but also a broader transformation of school culture and the education system.

In summary, the evaluation of the effectiveness of integrated formative assessment practices and active methodologies, reinforced by technologies, in institutions of integral education points to a specific potential for beneficial modification of the teaching-learning process. While there is evidence of benefits provided by student engagement, personalization of teaching, and enhancement of core competencies, there is still much to be explored about the long-term impacts of these tactics. The continuous training of teachers, the improvement of technological infrastructure, and the creation of a school culture that values innovation and experimentation are fundamental elements to maximize the effectiveness of these integrated practices in full-time schools.

## CHALLENGES IN THE IMPLEMENTATION OF EDUCATIONAL TECHNOLOGIES

The application of technologies in education in full-time schools, particularly in the context of formative assessment and active methodologies, presents a number of considerable challenges that require a meticulous approach. Gadotti (2017, p. 48) argues that "one of the biggest barriers to the application of educational technologies in full-time schools is inequality in access to and quality of technological infrastructure, which can intensify the educational inequalities already present". This observation highlights the relevance of a fair strategy in the implementation of technologies in the educational context.

Moran and Bacich (2018, p. 93) highlight another crucial challenge:

> Effective implementation of educational technologies in formative assessment practices and active methodologies is not limited to the purchase of equipment and software, but also requires a fundamental review of pedagogical practices and school culture. Several teaching challenges face challenges to adapt their teaching

Revista ARACÊ
ISSN: 2358-2472

> strategies to effectively incorporate technologies, which requires specific investment, continuous training and technical-pedagogical support.

This perspective emphasizes that the successful implementation of educational technologies goes beyond the mere acquisition of technological resources, requiring a deeper transformation in educational practices.

Parente (2019, p. 72) addresses the challenges related to educational management and policy:

> Often, the application of technologies in education in full-time schools encounters bureaucratic and political barriers. The absence of solid public policies and requirements for technological incorporation, together with the interruption of educational programs, makes the sustainable and efficient application of technological innovations in the school context a challenge.

There is a need for a systemic and long-term approach to the implementation of educational technologies, which considers not only technical aspects, but also political and administrative aspects.

Cavaliere and Coelho (2015, p. 156) point out that "a significant challenge in the implementation of educational technologies is to ensure that their use does not become an end in itself, but remains aligned with the pedagogical objectives and principles of integral education". This observation highlights the importance of staying focused on educational goals, utilizing technology as a means to achieve broader pedagogical ends.

Leclerc and Moll (2020, p. 118) discuss the challenge of evaluation and monitoring:

> The adoption of pedagogical technologies for formative assessment and monitoring of learning in full-time education institutions raises complex questions about data privacy, ethics in the collection and use of student information, in addition to the requirement to create assessment methods appropriate to the scenario of integral and technology-mediated education.

This commentary underscores the need to address ethical and practical issues in the implementation of technology-based monitoring systems.

In summary, the challenges in implementing educational technologies in institutions of integral education are varied, including technical, pedagogical, political, and ethical aspects. The solid literature suggests that overcoming these challenges requires a concerted effort that encompasses multiple aspects, such as teachers, school administrators, policymakers, and technology creators. In addition, it is crucial to preserve a perspective of equality and inclusion, ensuring that technological innovations benefit all

Revista ARACÊ
ISSN: 2358-2472

students and do not intensify existing inequalities. An effective implementation of educational technologies requires a meticulously and personalized approach, attentive to diverse educational contexts and able to adjust to evaluations and changes in educational demands.

## FUTURE PERSPECTIVES FOR TECHNOLOGICALLY IMPROVED INTEGRAL EDUCATION

The future prospects for technologically enhanced comprehensive education are characteristic of a fusion of pedagogical innovations and technological progress that have the potential to profoundly modify the educational experience in full-time schools. Santos and Ferreira (2021, p. 62) anticipate that "the future of integral education will be marked by highly personalized and adaptable learning environments, in which artificial intelligence and data analytics technologies will come together to provide personalized educational experiences for each student". This perspective proposes a significant change in the way we understand and apply integral education.

Almeida and Valente (2020, p. 89) complement this perspective, stating:

> The future of technologically enhanced integral education will probably see a growing integration between physical and virtual learning environments. Technologies such as virtual and augmented reality, combined with learning methods based on games and simulations, provide engaging experiences that considerably expand the opportunities for practical and experiential learning in full-time educational institutions.

This projection highlights the potential of emerging technologies to create richer and more engaging learning environments.

Pretto and Passos (2017, p. 103) address the perspectives for the role of the educator:

> In the near future, with technological advances in integral education, the role of the educator will change to that of a curator and facilitator of learning experiences. Technologies will be responsible for many daily teaching and assessment activities, enabling teachers to dedicate themselves to more complex and innovative aspects of the teaching process, such as the socio-emotional growth of students and individualized guidance.

This view emphasizes that, far from making educators obsolete, technologies have the potential to elevate and enrich their role in the educational process.

Revista ARACÊ
ISSN: 2358-2472

Borges and Silva (2019, p. 75) discuss the perspectives for learning assessment and monitoring:

> In full-time schools, the future of assessment will be characterized by systems of constant and integral monitoring of learning. Educational technologies of data analysis and artificial intelligence will enable a deeper and more detailed understanding of students' advancement, not only in the academic sphere, but also in socio-emotional and competence aspects. This will allow for more curated and appropriate educational interventions.

This perspective suggests a significant shift in the way we assess and support student development in whole-education settings.

Costa and Oliveira (2022, p. 98) address the implications for educational equity:

> A key challenge for the future of technologically enhanced comprehensive education will ensure that technological and pedagogical innovations foster greater equity in education. It is essential to create strategies to democratize access to cutting-edge educational technologies and ensure that all students, regardless of their socioeconomic status, can take advantage of the opportunities provided by comprehensive education with a technological emphasis.

This observation highlights the importance of addressing equity issues as we move towards more technologically advanced educational models.

In summary, the future prospects for technologically enhanced integral education are marked by the combination of pedagogical and technological advances that have the potential to significantly revolutionize the educational experience. A literature review indicates a trend towards more personalized, engaging, and holistic learning models, supported by cutting-edge technologies such as Artificial Intelligence, virtual reality, and educational data analytics. However, achieving this potential will not only require technological advances, but also a fundamental reassessment of our teaching methodologies, curriculum structures and education policies.

As we progress towards this educational future, it will be vital to maintain a balance between innovation and inclusion, ensuring that changes in integral education are advantageous for all students and help build a more equitable and empowered society. This will require teachers, researchers, technology creators and policymakers to work together to develop education systems that are truly equipped for the challenges and opportunities of the 21st century.

Revista ARACÊ
ISSN: 2358-2472

## FINAL CONSIDERATIONS

The study sought to examine the combination of formative assessment and active methodologies in full-time educational institutions, with emphasis on the role of technologies in monitoring learning. The most revealed findings of this literature review indicate a remarkable shift in pedagogical and assessment practices in full-time schools, driven by the implementation of cutting-edge educational technologies.

It was noted that formative assessment in full-time schools acquires a new level with the use of technologies, enabling a more constant and thorough monitoring of the students' progress. On the other hand, active methodologies are found in the context of integral education in a favorable environment for their application, taking advantage of the extended time for more complex projects and more in-depth learning experiences. The combination of these strategies, backed by technologies, demonstrated ability to establish a more vibrant educational environment that is adaptable to the individual demands of students.

Technologies have played a key role in monitoring learning, providing instruments for real-time data collection and analysis, personalization of teaching, and immediate feedback. Artificial intelligence systems, adaptive learning platforms, and interactive dashboards have emerged as promising resources to assist teachers and students in the teaching-learning process.

The effectiveness of integrated assessment and teaching practices, when well implemented and supported by appropriate technologies, has shown promising results in terms of student engagement, competence development, and personalization of teaching. However, the research also revealed that the effectiveness of these approaches varies considerably depending on the context of implementation and the quality of support offered to educators.

The implementation of educational technologies in full-time schools has presented considerable and multifaceted challenges. Problems such as inequality in access to technology, the requirement for continuous training of teachers, ethical dilemmas related to privacy and the use of student data, and the relevance of reconciling the use of technology with the broader pedagogical objectives of integral education emerged as crucial issues to be addressed.

The future of technologically improved integral education indicates a scenario of greater personalization, with adaptive and engaging learning environments. The

Revista ARACÊ
ISSN: 2358-2472

incorporation of intelligence technologies such as artificial, virtual and augmented reality has the potential to considerably expand the opportunities for rich and varied educational experiences. However, realising this potential requires a meticulous strategy that harmonises technological innovation with robust pedagogical principles and ethical considerations.

The results of this research are relevant as they offer a thorough assessment of the present state and future prospects of incorporating formative assessment, active methodologies, and technologies into full-time schools. The results highlight the relevance of an integral perspective that takes into account not only the technical elements of technological application, but also its pedagogical, ethical and social consequences.

However, further studies are needed to validate the results of this study. Long-term research on the effect of these integrated strategies on students' academic and social-emotional progress would be especially helpful. In addition, investigations into effective methods for measuring the success of technologically advanced integral education programs, as well as studies on how to ensure equal access to and benefits from these innovations, fields relevant to future studies.

To conclude, the incorporation of formative assessment, active methodologies and technologies in full-time educational institutions constitutes a promising area for education. To succeed in this new environment, it will require constant and collaborative collaboration between educators, researchers, technology creators, and policymakers. The ultimate goal should be to develop educational systems that not only utilize technological potential to enhance teaching and learning, but also update and expand the basic principles of integral education, encouraging the integral and fair growth of all students.

Revista ARACÊ
ISSN: 2358-2472

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