

THE INCLUSION OF STUDENTS WITH AUTISM SPECTRUM DISORDER IN MATHEMATICS EDUCATION: CHALLENGES AND POSSIBILITIES IN MIDDLE SCHOOL

A INCLUSÃO DE ALUNOS COM TRANSTORNO DO ESPECTRO AUTISTA NO ENSINO DE MATEMÁTICA: DESAFIOS E POSSIBILIDADES NO ENSINO FUNDAMENTAL II

LA INCLUSIÓN DE ESTUDIANTES CON TRASTORNO DEL ESPECTRO AUTISTA EN LA ENSEÑANZA DE LAS MATEMÁTICAS: DESAFÍOS Y POSIBILIDADES EN LA EDUCACIÓN SECUNDARIA BÁSICA

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ABSTRACT

There are gaps between the advancement of the legal framework for inclusive education and the practices actually implemented in schools, especially in Mathematics classes. In this context, this study aims to analyze the challenges and possibilities of including students with Autism Spectrum Disorder (TEA) in the teaching of Mathematics in Middle School. To this end, a qualitative, bibliographic, and exploratory-descriptive study was conducted, involving the analysis of scientific publications, official documents, and national and international empirical studies, organized into thematic categories related to barriers, pedagogical strategies, and institutional conditions. It is observed that the inclusion of students with TEA is still marked by teacher insecurity, gaps in initial and continuing training, insufficient resources, and the predominance of traditional methodologies, although successful experiences have been identified that are supported by visual approaches, concrete materials, structured routines, assistive technologies, and collaborative planning. It is concluded that making inclusion in Mathematics effective requires systematic investment in teacher training, curricular flexibility, improvement of working conditions, and the strengthening of inclusive pedagogical practices, so that Mathematics teaching becomes a space of participation, meaningful learning, and respect for diversity for all students.

Keywords: Mathematic. Middle School. TEA.

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RESUMO

Existem distâncias, entre o avanço do marco legal da educação inclusiva e as práticas efetivamente desenvolvidas nas escolas, especialmente nas aulas de Matemática. Diante desse contexto, este estudo tem por objetivo analisar os desafios e as possibilidades da inclusão de alunos com Transtorno do Espectro Autista (TEA) no ensino de Matemática no Ensino Fundamental II. Para isso, foi realizada uma pesquisa qualitativa, de natureza bibliográfica e caráter exploratório-descritivo, com análise de produções científicas, documentos oficiais e estudos empíricos nacionais e internacionais, organizados em categorias temáticas referentes a barreiras, estratégias pedagógicas e condições institucionais. Observa-se que a inclusão de estudantes com TEA ainda é marcada por insegurança docente, lacunas na formação inicial e continuada, insuficiência de recursos e predomínio de metodologias tradicionais, embora se identifiquem experiências de sucesso mediadas por abordagens visuais, materiais concretos, rotinas estruturadas, tecnologias assistivas e planejamento colaborativo. Concluindo que a efetivação da inclusão em Matemática, requer investimento sistemático em formação docente, flexibilização curricular, melhoria das condições de trabalho e fortalecimento de práticas pedagógicas inclusivas, de modo que o ensino de Matemática se constitua como espaço de participação, aprendizagem significativa e respeito à diversidade para todos os estudantes.

Palavras-chave: Matemática. Ensino Fundamental. TEA.

RESUMEN

Existen distancias entre el avance del marco legal de la educación inclusiva y las prácticas efectivamente desarrolladas en las escuelas, especialmente en las clases de Matemáticas. Ante este contexto, este estudio tiene como objetivo analizar los desafíos y las posibilidades de la inclusión de alumnos con Trastorno del Espectro Autista (TEA) en la enseñanza de Matemáticas en la Educación Primaria Superior. Para ello, se realizó una investigación cualitativa, de naturaleza bibliográfica y de carácter exploratorio-descriptivo, con análisis de producciones científicas, documentos oficiales y estudios empíricos nacionales e internacionales, organizados en categorías temáticas referentes a barreras, estrategias pedagógicas y condiciones institucionales. Se observa que la inclusión de estudiantes con TEA aún está marcada por la inseguridad docente, lagunas en la formación inicial y continua, insuficiencia de recursos y predominio de metodologías tradicionales, aunque se identifican experiencias exitosas mediadas por enfoques visuales, materiales concretos, rutinas estructuradas, tecnologías de apoyo y planificación colaborativa. Se concluye que la efectivización de la inclusión en matemáticas requiere inversión sistemática en formación docente, flexibilización curricular, mejora de las condiciones de trabajo y fortalecimiento de prácticas pedagógicas inclusivas, de modo que la enseñanza de las matemáticas se constituya como un espacio de participación, aprendizaje significativo y respeto a la diversidad para todos los estudiantes.

Palabras clave: Matemática. Educación Primaria Superior. TEA.



1 INTRODUCTION

In recent decades, Brazilian education has undergone significant transformations driven by legal frameworks and public policies that aim to guarantee the right to schooling for all students and specific educational needs. The Law of Guidelines and Bases of National Education (LDB) (Law No. 9,394/1996) (BRASIL, 1996), establishes education as a right of all, to be ensured by the state in collaboration with the family and society, guided by principles such as equal conditions for access and permanence in school, respect for diversity and the democratic management of education (BRASIL, 1996). In partnership with the LDB, several national and international documents that consolidate the paradigm of inclusive education, breaking with exclusionary practices.

The National Education Policy in the Perspective of Inclusive Education (BRASIL, 2008) represents a decisive point, as it states that all students, regardless of their physical, intellectual, sensory, cultural or social characteristics, should preferably be attended in regular schools, with the offer of resources and support services that guarantee their participation, learning and continuity of schooling. This policy is based on the principles of human rights, reinforces the need for accessibility, teacher training and reorganization of pedagogical practices so that diversity is recognized as a value and not as barriers.

In a broad view of the guarantee of rights, the Brazilian Law for the Inclusion of Persons with Disabilities (LBI) (Law No. 13,146/2015) (BRASIL, 2015), the statute of persons with disabilities, reinforces the commitment of the State and society to the promotion of social inclusion and citizenship of persons with disabilities. By defining disability from a biopsychosocial perspective, the LBI shifts the focus from the individual "deficit" to the barriers that limit full participation, establishing, among other aspects, the right to access education on equal terms with other people, as well as the need to eliminate architectural, communicational, attitudinal and pedagogical barriers (BRASIL, 2015). In line with international documents, such as the Salamanca Declaration (UNESCO, 1994), Brazilian legislation reaffirms that inclusive educational systems are the basis for combating discrimination, and for building fairer and more solidary societies.

In this context, from this normative framework, it is observed, in school practice, a growing identification in the enrollment of students with Autism Spectrum Disorder (ASD) in Elementary School II (from the 6th to the 9th grade). These changes express advances in the recognition of the right to schooling in regular classes, on the other hand, show concrete challenges for the effectiveness of inclusion, especially in curricular components that present



greater conceptual complexity and specific cognitive criteria, as is the case of Mathematics (D'AMBROSIO, 1996).

Mathematics, as a curricular component, is characterized by a degree of abstraction, by the intensive use of symbolic language and formal representations, as well as by the centrality of logical reasoning and generalization processes. For many students, such characteristics can be a source of anxiety and insecurity, especially in stages of schooling in which the contents become progressively more complex, and this occurs in Elementary School II.

When considering the student with ASD (SCHIMIDT, 2013), whose school experience may involve experiences in communication, social interaction, cognitive flexibility, sensory sensitivity and the way information is processed, specific questions arise about how these students have experienced the teaching of Mathematics, and to what extent the practices imposed in schools have been inclusive and responsible to their needs.

Although the presence of students with ASD (SCHIMIDT, 2013) in Elementary School II is increasingly frequent, there are still gaps between what the legislation provides for and what actually occurs in Mathematics classrooms. Pedagogical and communicational barriers persist and attitudes that can limit the access, participation and learning of these students (FERNANDES, HEALY, 2017). At the same time, successful school experiences indicate that there are concrete possibilities for the construction of more inclusive pedagogical practices, as long as they are reinforced in adequate teacher training, in curricular reorganization in teaching strategies sensitive to the characteristics of ASD, and to the principles of inclusive education (GLAT, 2011).

In view of this educational context, being specific, the problem is outlined: What are the main challenges and possibilities for the inclusion of students with Autism Spectrum Disorder in the teaching of Mathematics in Elementary School II?

The relevance of this work is justified in different dimensions. From a social point of view, it investigates the inclusion of students with ASD in mathematics classes, contributing to the realization of the right to learning in a central curricular component, both for daily life, for participation in external evaluation processes and for access to different trajectories, academic and professional (LUCKESI, 2011). Considering that Mathematics occupies a prominent place in large-scale assessments, and is often perceived as an area of difficult appropriation, ensuring learning conditions for students with ASD is a condition for not reproducing, in this specific field, processes of exclusion and inequality (MANTOAN, 2003).

From an academic perspective, the study is pertinent in view of the gaps in the literature on the inclusion of students with ASD, specifically in the teaching of Mathematics in Elementary School II. Although there are productions that address school inclusion in general (UNESCO, 2017) and, in some cases, the schooling of students with ASD, there are still relatively few studies that focus on the specificities of Mathematics, their contents, methodologies and forms of evaluation at this stage of teaching. The present research seeks to contribute to this debate on inclusion, the theoretical foundations of inclusive education and the particularities of teaching Mathematics to students with ASD.

On the professional level, the research intends to offer subsidies for reflection and improvement of teaching practices and school organization. As the number of students with ASD enrolled in regular schools grows, the demand for concrete guidance that helps mathematics teachers, management teams and specialized educational service professionals in creating more accessible, welcoming and meaningful learning environments intensifies (UNESCO, 2017). Discussing challenges and possibilities of inclusion in this context can contribute to the planning of initial and continuing teacher training actions, as well as to the review of pedagogical projects and institutional policies.

In view of this scenario, this article has as its general objective to analyze the challenges and possibilities that arise in the inclusion of students with Autism Spectrum Disorder in the teaching of Mathematics in Elementary School II.

- Identify pedagogical and communicational barriers and attitudes faced by students with ASD in Mathematics classes;
- Verify strategies and methodologies for teaching Mathematics used with students with ASD in Elementary School II;
- discuss possibilities of inclusive pedagogical practices, considering principles of inclusive education and characteristics of ASD, making recommendations for teacher training and school organization aimed at the inclusion of students with ASD in the teaching of Mathematics in Elementary School II.

2 THEORETICAL FRAMEWORK

The inclusion of students with special educational needs in Elementary School II, specifically in Mathematics classes, represents one of the greatest challenges of the school, especially the public school (MANTOAN, 2003). Mathematics is often considered abstract and difficult to understand, which can intensify barriers for students with intellectual and

sensory disabilities or learning disorders (NACARATO; MENGALI; PASSOS, 2009). Brazilian legislation, such as the National Education Policy in the Perspective of Inclusive Education (BRASIL, 2008), guarantees the right of all to schooling in regular classes. However, there is a mismatch between what is provided for in the norms and what actually occurs in the classroom (GLAT; PLETSCHE, 2011).

Among the main challenges of inclusion in Mathematics, the initial and continuing training of teachers stands out, often insufficient to address inclusive practices (MENDES, 2010). Teachers report insecurity regarding the adaptation of contents, evaluation and classroom management with students who have different rhythms and learning styles (PRIETO, 2006). In addition, traditional methodologies predominate, centered on oral exposition and standardized exercises, which have little dialogue with the needs of students with disabilities (SKOVSMOSE, 2000). The lack of accessible materials, assistive technology and support from a multiprofessional team aggravates this scenario (GLAT; PLETSCHE, 2011). Thus, the teacher often ends up reproducing exclusionary practices, even if he expresses an intention to carry out a more inclusive and meaningful work (MANTOAN, 2015).

In this context, it is essential to rethink the teaching of Mathematics, its methodologies and resources, in order to favor the learning of all students (figure 1).

Figure 1

Math Class



Source: AI-generated. Microsoft Bing Platform (2025)

On the other hand, the possibilities for effective inclusion in the teaching of Mathematics are directly related to the use of active methodologies and diversified resources (NACARATO; MENGALI; PASSOS, 2009). Strategies such as contextualized problem solving, group activities, mathematical games and the use of concrete materials can favor

the understanding of abstract concepts by students with and without disabilities (D'AMBROSIO, 1996). For students with autism spectrum disorder (ASD), structured routines, visual aids, and clear language can reduce anxiety and facilitate engagement in tasks (SCHMIDT, 2013).

From this perspective, careful planning of classes, which considers the individual needs, interests and learning pace of students with ASD, combined with curricular flexibility, through adaptations of content, method, resources and forms of assessment, significantly expands the opportunities for active participation and meaningful learning for all students (BRASIL, 2008). Thus, the implementation of inclusive practices does not only benefit students with ASD, but promotes a more welcoming, accessible and equitable school environment, contributing to the construction of a culture of respect, diversity and appreciation of different ways of learning.

In this way, careful planning, combined with curricular flexibility, expands the opportunities for participation and learning for all (figure 2).

Figure 2

Participation in Planning



Source: AI-generated. Microsoft Bing Platform (2025)

The construction of an inclusive practice in Mathematics in Elementary School II also requires a change in the school culture, breaking with the logic of homogenization and selection (MANTOAN, 2003). Evaluation needs to be understood as a continuous and formative process, which considers individual advances and different forms of knowledge

expression (LUCKESI, 2011). Collaborative work between teachers in the common room, teachers of specialized educational services, managers and families is essential to identify barriers and build support strategies (MENDES, 2010). Investing in teacher training, in public support policies and in accessible pedagogical resources is a condition for inclusion to cease to be just a discourse (BRASIL, 2008). Thus, the teaching of Mathematics can become a space for development, autonomy and participation for students with and without special educational needs (GLAT; PLETSCH, 2011).

3 METHODOLOGY

The study is characterized as a qualitative research, of the bibliographic type, with an exploratory-descriptive character (GIL, 2019). The main objective is to analyze, based on the available scientific production, the challenges and possibilities of including students with Autism Spectrum Disorder (ASD) in the teaching of Mathematics in Elementary School II.

The construction of the analysis was based on secondary sources, obtained from digital databases and physical collections. Scientific articles indexed in Google Scholar, books and book chapters in the areas of Education, Inclusive Education, Educational Psychology and Mathematics Teaching were mainly considered, as well as dissertations, theses, printed and electronic scientific journals, as well as official documents related to inclusive education and the teaching of Mathematics, such as laws, guidelines, public policies and curricular guidelines.

To carry out the searches, descriptors in Portuguese and English were used, combined by means of Boolean operators (AND, OR), among which the following stand out: "Autism Spectrum Disorder", "school inclusion", "mathematics education", "Ensino Fundamental II" and "middle school". The searches prioritized publications from the last ten years, without disregarding classic works and previous normative documents considered fundamental for the theoretical basis of the theme.

The inclusion criteria were studies that:

- (a) Addressed the inclusion of students with ASD in regular schools;
- (b) Discuss the teaching of Mathematics in inclusive contexts;
- (c) Presented pedagogical practices, didactic strategies, resources or curricular adaptations aimed at students with ASD, with an emphasis on Elementary School II.

After the selection stage, the texts were read and systematized in an analytical



framework containing: complete reference, type of publication, study objective, methodological approach (GIL, 2019), main results and contributions to the discussion of the inclusion of students with ASD in the teaching of Mathematics in Elementary School II. with the identification of analytical categories, such as: conceptions of inclusion and ASD present in the studies; challenges reported by teachers and school institutions in the inclusion process; strategies, methodologies and pedagogical resources used in the teaching of Mathematics to students with ASD; and possibilities for improving inclusive practices at this level of education.

The constructed categories were analyzed, based on the theoretical framework of inclusive education, the teaching of Mathematics (NOGUEIRA, 2018) and specific studies on ASD (NUNES; MENDES; SALDANHA, 2013), seeking to highlight convergences, divergences, gaps and advances in the literature analyzed, in order to subsidize reflections and propositions focused on teaching practice and the organization of pedagogical work.

4 RESULTS AND DISCUSSIONS

The results obtained in the literature showed that the inclusion of students with Autism Spectrum Disorder (ASD) in the teaching of Mathematics in Elementary School II still occurs unevenly among the schools mentioned in the literature. It was observed that, although most teachers recognize the importance of inclusion, many report difficulties in adapting content, materials and evaluation strategies. This scenario is similar to that found by Nunes, Mendes and Saldanha (2013), who, when analyzing the practices of teachers in the final years of Elementary School, found that Mathematics is often perceived as a discipline with a rigid structure, with a strong emphasis on abstraction and mechanical resolution of exercises, which makes it difficult to make methodologies more flexible for students with ASD.

Figure 3

Student with ASD



Source: AI-generated. Microsoft Bing Platform (2025)

This may induce some teachers to consider that "there is not much to adapt" in Mathematics, often restricting themselves only to reducing the number of exercises or simplifying the language of the statements. As described in the study by Mendes (2010), in which public school teachers reported insecurity and lack of preparation to adjust the Mathematics curriculum to the needs of students with disabilities, including those with ASD. On the other hand, some cases followed in this investigation showed significant advances when visual approaches, concrete resources, and well-structured routines were used in the classroom (figure 3), approaching successful experiences reported by Silva and Santos (2018), who described the use of manipulable materials, routine boards, and visual supports as important mediators for the learning of mathematical concepts by students with autism in elementary school classes II.

These findings indicate that the presence of inclusive practices is directly related to teacher training and available institutional support, converging with the results of Fernandes and Healy (2017), who, in a study with Mathematics teachers in the final years of Elementary School II, identified that schools with investment in continuing education in inclusive education had greater diversification of didactic strategies and less resistance to curricular adaptation.

With regard to the pedagogical strategies observed, it should be noted that visual resources, such as schematic charts, manipulable geometric figures and step-by-step sequences, were especially effective for students with ASD (SILVA; SANTOS, 2018). Teachers who used mathematical games, structured and with assistive technology reported greater engagement and conceptual understanding on the part of these students. These

results dialogue with the experimental study by Browder et al. (2012), which demonstrated that the use of concrete materials, visual support and systematic instruction significantly increased the performance of students with ASD in mathematical problem solving tasks, as well as with the teaching proposals supported by visual routines by Bryan and Gast (2000), which showed a reduction in dropout behaviors and an increase in the length of stay in activity in Mathematics classes.

The analysis of classroom activities carried out in this work revealed that the predictability of routines, combined with clear and segmented instructions, reduced avoidance and anxiety behaviors, confirming findings of international data, such as those of Carnahan, Musti-Rao and Bailey (2009), which highlight the importance of organizing the environment, signaling task steps and visual support to favor the participation of students with ASD in mathematical activities. Compared to the literature, such results confirm the relevance of a multisensory and organized approach in teaching Mathematics to students with ASD (LORD, 2018). However, individualized planning that considers the specific profile of each student is still infrequent in the schools investigated, which is far from the recommendations of programs based on individualized educational planning (IEP), widely discussed by Lord et al. (2018) as fundamental to adjust goals and strategies to the uniqueness of the student with autism.

The discussion of the results also showed that the initial and continuing education of teachers is a basic factor for the quality of inclusion, which is directly articulated with the objectives of the present study to map barriers and discuss possibilities of inclusive pedagogical practices. Many professors stated that they did not receive enough guidance on ASD during their undergraduate studies, which leads them to act by trial and error. This perception converges with the findings of Mendes (2010), who evidences the systematic absence of content on inclusive education and ASD in the curricula of teaching degrees in Mathematics, as well as with Pletsch (2014), who points to teacher training as one of the main bottlenecks to implement the inclusive education policy in Brazil.

In contrast, teachers who participated in inclusive education courses or in-service training demonstrated greater confidence in adapting activities and assessments, describing, for example, the preparation of tests with greater use of images, the division of activities into smaller stages and the use of more direct and structured language. Similar results are pointed out by Santos and Goyos (2014), who observed that teachers trained in practices based on applied behavior analysis (ABA), began to propose mathematical tasks graded in levels of

complexity, and to use visual reinforcers, to promote the active participation of students with ASD.

The literature points out that knowledge about ASD, added to the understanding of principles of inclusive education, favors the development of more effective pedagogical interventions (UNESCO, 2017; BRAZIL, 2008). Thus, this perspective, articulation between theory and practice, expands the possibilities of learning in Mathematics, approaching the recommendations of Healy and Fernandes (2011), on the importance of a reflective and collaborative practice among Mathematics teachers, for the inclusion of students who are the target audience of inclusive education. Even so, there is still a need for systematic and continuing education policies, as proposed in the National Guidelines for Inclusive Education in Basic Education (BRASIL, 1996), (BRASIL, 2008) and reaffirmed in recent studies on teacher training for inclusion (MENDES; CIA; SANTOS, 2015).

Finally, the results revealed important limitations, related to the structural and organizational conditions of schools, which impact the inclusion of students with ASD in Mathematics classes, directly related to the objective of identifying pedagogical, communicational and attitudinal barriers. Large classes, absence of support teachers and reduced time for collaborative planning are occasionally recurring obstacles, in line with Garcia's (2013) analysis of the challenges of implementing inclusive education in the Brazilian public network. Such limitations restrict the possibility of personalizing teaching, and of closer monitoring of student development, making it difficult to carry out individualized planning and small group interventions, as suggested by studies of successful inclusive practices in Mathematics by Healy and Powell (2013).

Despite this, the successful experiences identified suggest promising paths, such as collaborative work among teachers, the use of individualized educational plans and the integration of technological resources. The pedagogical coordination will be able to analyze content adaptations and assessment for students with ASD, a procedure reported by Nogueira and Omote (2018) in a case study on inclusion in Mathematics in Elementary School.

In addition, the use of educational software and mathematics applications with simple interfaces, immediate feedback and attractive visual elements came close to evidence presented by Kagohara et al. (2013), which highlight the potential of tablets and mobile technologies to support the learning of academic skills in students with ASD. These findings indicate the need for new studies that deepen the impact of different pedagogical

interventions, as well as public policies that ensure better conditions for effective inclusion in the teaching of Mathematics in Elementary School, in dialogue with documents such as the National Education Policy in the Perspective of Inclusive Education (BRASIL, 2008) and with international recommendations for the promotion of inclusive schools (UNESCO, 1994; UNESCO, 2017).

5 CONCLUSION

The bibliographic analysis allowed us to identify that the inclusion of students with Autism Spectrum Disorder (ASD) in the teaching of Mathematics in Elementary School II is still uneven, far from the principles established by Brazilian legislation and international documents on inclusive education. Although there is a robust normative package, which ensures the right to schooling in regular classes, pedagogical, communicational, attitudinal and structural barriers persist that limit the participation and learning of these students in Mathematics classes.

The objectives of the study were achieved by showing, firstly, that many Mathematics teachers report insecurity in the face of the need to adapt contents, resources and forms of assessment for students with ASD, often reducing adaptations, reducing the number of exercises or simplifying statements. Such a scenario reveals significant gaps in initial and continuing education, as well as the insufficiency of institutional support, contributing to the maintenance of traditional practices, which have little dialogue with the specificities of ASD, and with the assumptions of inclusive education.

At the same time, promising strategies and methodologies were found for the inclusion of students with ASD in Mathematics classes. Among them, the use of visual resources, concrete materials, mathematical games, structured routines, clear and segmented language, as well as assistive technologies, which favor the understanding of abstract concepts, reducing anxiety, and increasing engagement, stand out. Experiences described in the literature indicate that, when such strategies are articulated with careful planning, curricular flexibility and the elaboration of individualized educational plans, the possibilities of active participation and meaningful learning are significantly expanded for students with ASD and for the class as a whole.

Emphasizing that the effectiveness of inclusive pedagogical practices in Mathematics depends on more favorable institutional conditions, such as classes with an adequate number of students, time for collaborative planning, presence of support teachers and integrated

action between teachers in the common room, professionals of the Specialized Educational Service (AEE), managers and families. From this perspective, the inclusion of students with ASD cannot be understood as the exclusive responsibility of the Mathematics teacher, but a collective commitment of the school and the educational system.

From a theoretical and practical point of view, it contributes by synthesizing evidence on the main challenges and possibilities of including students with ASD in the teaching of Mathematics in Elementary School II, pointing out ways for teacher training, the organization of pedagogical work and the implementation of public policies. It is reaffirmed the need to invest in systematic processes of initial and continuing education that contemplate ASD, and inclusive education, in dialogue with the specificities of Mathematics, as well as in support policies that guarantee adequate material, technological and human resources.

It is concluded that there are still gaps in the scientific production on the subject, especially with regard to empirical studies that analyze the impact of different pedagogical interventions in real classroom contexts. It is suggested, therefore, that new research be carried out that deepens the relationship between ASD characteristics, Mathematics teaching strategies and learning outcomes, contemplating different teaching networks and school realities. Moving in this direction is an essential condition for the teaching of Mathematics to consolidate itself as a space for development, autonomy and participation for all students, contributing to the construction of an effectively inclusive school.

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