

**Mathematics Fair as a collaborative practice in teacher training: an  
overview of academic productions (2015–2025)**

**Feira de Matemática como prática colaborativa na formação  
docente: um panorama das produções acadêmicas (2015–2025)**

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**ABSTRACT**

This article aims to analyze how the Mathematics Fair has contributed to teacher training, with an emphasis on collaborative practices, from 2015 to 2025, examining what has been produced in the last decade. This is an initial study with the specific objectives of identifying and analyzing Brazilian academic productions, theses and dissertations, that address the Mathematics Fair as a collaborative teacher training practice. To better understand these purposes, it is necessary to examine Brazilian academic productions to understand what has already been produced on the subject. To this end, a mapping of theses and dissertations available in the CAPES Thesis and Dissertation Catalog was carried out. The investigation sought to identify trends, approaches, and contributions of this initiative to the training process of teachers who teach Mathematics in Basic Education. The results show that Mathematics Fairs are transformative educational practices, capable of breaking with the traditional transmission paradigm and bringing Mathematics teaching closer to its social and civic function. In this sense, they constitute spaces that respond to the contemporary challenges of teaching, promoting the construction of knowledge based on criticality, autonomy, creativity, and innovative pedagogical practices. The relevance of the study

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lies precisely in understanding these formative experiences as alternatives to the current demands of the teaching profession.

**KEYWORDS:** Mathematics Fairs. Mathematics Education. Teacher Training.

## RESUMO

Este artigo tem como objetivo geral analisar de que maneira a Feira de Matemática tem contribuído para a formação docente, com ênfase nas práticas colaborativas, no período de 2015 a 2025, buscando identificar o que foi produzido na última década. Trata-se de um estudo inicial que tem como objetivos específicos localizar e analisar as produções acadêmicas brasileiras – teses e dissertações – que abordam a Feira de Matemática como prática colaborativa de formação docente. Para melhor compreender tais propósitos, é mister buscar, nas produções acadêmicas brasileiras, o que já tem sido produzido sobre a temática em estudo. Para tanto, realizou-se um mapeamento de teses e dissertações disponíveis no Catálogo de Teses e Dissertações da CAPES. A investigação buscou identificar tendências, abordagens e contribuições dessa iniciativa no processo formativo de professores que ensinam Matemática na Educação Básica. Os resultados evidenciam que as Feiras de Matemática se configuram como práticas educativas transformadoras, capazes de romper com o paradigma transmissivo tradicional e de aproximar o ensino da Matemática de sua função social e cidadã. Nesse sentido, constituem-se como espaços que respondem aos desafios contemporâneos da docência, ao promoverem a construção de saberes pautados na criticidade, autonomia e criatividade, por meio de práticas pedagógicas inovadoras. A relevância do estudo está justamente na compreensão dessas experiências formativas como alternativas frente às exigências atuais da profissão docente.

**PALAVRAS-CHAVE:** Feiras de Matemática. Educação Matemática. Formação de Professores.

## 1 Introduction

The teaching of Mathematics, historically marked by content-driven approaches and pedagogical practices centered on the memorization of formulas and procedures, has been increasingly challenged by proposals that seek to redefine the teaching of the discipline from a critical, contextualized, and humanizing perspective.

In this context, the Network Movement of Mathematics Fairs (MRFMat) emerges as a significant initiative by promoting the integration of teaching, research, and outreach in non-formal learning environments. Created in 1985 in the state of Santa Catarina, the Mathematics Fairs have expanded to other regions of Brazil, establishing themselves as spaces of authorship, collaboration, and agency for those involved in the educational process. These events connect the production of mathematical knowledge with meaningful pedagogical practices, valuing both the teacher's role as a mentor and educator and the student's active participation in the construction of knowledge.

The Mathematics Fairs Network stands out as a catalytic, pioneering, and promising experience by bringing together different stakeholders—schools, teachers, students, universities, and communities. By promoting active methodologies, student authorship, and collaborative teacher education, the network transforms isolated initiatives into collective actions with broad impact, expanding scientific culture and strengthening participants' agency. It thus consolidates itself as a dynamic space for innovation, professional development, and the dissemination of mathematical knowledge, capable of driving meaningful transformations in the educational landscape. Finally, it is worth noting that the state of São Paulo does not yet have a consolidated culture of Mathematics Fairs, as is the case in other Brazilian states.

The challenges of teacher education and educational quality are directly linked to the need to bridge theory and practice, value and support teachers, strengthen continuing education, integrate innovative technologies and methodologies, and ensure sustainable educational policies. In light of the challenges faced in teacher education and instructional quality within the field, overcoming these obstacles becomes essential for building an education that is high-quality, inclusive, and transformative.

Within this framework, the present study is justified by the need to understand the formative role of Mathematics Fairs, particularly regarding teachers' professional development and students' engagement in investigative practices. It therefore seeks to discuss how pedagogical workshops and the projects presented at the Fairs can help transform relationships with Mathematics, making them more dialogical, inclusive, and meaningful.

Continuing education and teachers' professional development, encouraged through participation in Mathematics Fairs, both require and foster formative processes focused on planning investigative activities, conducting evidence-based assessment, and supervising student projects. As a result, forward-looking practices no longer depend on the isolated enthusiasm of a single teacher but instead become part of the institution's repertoire.

Initial and continuing teacher education has been widely discussed in light of practices that promote reflection, collaboration, and the articulation between theory and practice, as observed in the works of De Paula et al. (2021), Nacarato and Moreira (2019), and Rodrigues (2016). Events in the field of Mathematics Education—such as the International Seminar on Research in Mathematics Education (SIPEM), the State Meetings on Mathematics Education (EPEM), and our research group, the

“Collaborative Group for Mathematics and Science Education”—stand out as spaces for discussing both initial and continuing teacher education. Actions such as these aim to “promote reflection, collaboration, and the articulation between theory and practice” (Rodrigues et al., 2021).

In this context, the Mathematics Fair presents itself as a relevant pedagogical practice with the potential to bring together pre-service teachers, students, and the community around a shared goal: making Mathematics more accessible, engaging, and connected to reality.

The organization of a Mathematics Fair can be understood as a formative space that goes beyond the boundaries of the classroom, fostering the mobilization of diverse knowledge and competencies among teachers, students, and the school community. Such experiences encourage the development of investigative, critical, and collaborative pedagogical practices, contributing significantly to teachers’ professional growth.

From this perspective, the specific objective of this article is to identify and analyze Brazilian academic works—theses and dissertations—that address the Mathematics Fair as a collaborative practice in teacher education, published between 2015 and 2025. To this end, a survey was conducted in the thesis and dissertation catalog database of the Coordination for the Improvement of Higher Education Personnel (CAPES) in order to map how this theme has been approached. The decision to rely exclusively on this catalog as a research source is justified by its reliability, scope, and scientific relevance. It is an official database maintained by the Ministry of Education that compiles the academic production of *stricto sensu* graduate programs recognized by CAPES, ensuring methodological quality and institutional legitimacy. The catalog includes dissertations and theses from across the country, enabling a broad and representative view of trends, themes, and research approaches in the field of education. Moreover, these works undergo rigorous academic evaluation processes, which guarantee the credibility of the information and the consistency of the collected data.

This mapping is further grounded in the importance of understanding how such practices contribute to the education of teachers who teach Mathematics in Basic Education, particularly in light of contemporary challenges that call for professionals who are more critical, autonomous, and creative.

## **2 Theoretical Framework**

The Network Movement of Mathematics Fairs (MRFMat) stands as an important initiative in the field of Mathematics Education by bringing together investigative and formative principles within non-formal learning spaces that extend beyond the boundaries of the traditional classroom. According to Oliveira and Dalmann (2004, p. 86), it is a proposal that, “aligned with the principles and objectives of Mathematics Education, values investigative work, motivating both students and teachers to engage in mathematical research.” This perspective is consistent with approaches that understand the teaching of Mathematics as a social practice (Borba & Skovsmose, 1997; Skovsmose, 2000), centered on the collective construction of meaning and on critically engaging with lived reality.

In this sense, Mathematics Fairs represent privileged spaces for the development of meaningful and contextualized teaching and learning practices, promoting the socialization of knowledge among students, teachers, and school communities across different educational levels. By fostering dialogue between school-based knowledge and experiential knowledge, the fairs strengthen the agency of those involved and broaden the understanding of Mathematics as a language, tool, and cultural expression (D'Ambrosio, 2002). Santos, Oliveira, and Civiero (2020) emphasize that Mathematics Education must respond to the concrete expectations and needs of teachers and students in order to enrich educational processes through investigative and dialogical practices.

However, in everyday school settings, this proposal still faces structural and epistemological obstacles. Among them is traditional teacher education, often marked by a reproductive and technicist bias that has sustained pedagogical practices centered on the repetition of algorithms and decontextualized exercises (Ponte, 2012), particularly in Mathematics-specific subjects. This formative perspective tends to confine teachers to the role of content transmitters, inhibiting the development of a reflective and critical stance toward the educational process (Pimenta & Lima, 2017). Added to this are the precarious working conditions of teachers, excessive teaching loads, professional devaluation, and growing student apathy in the face of a complex and hyperconnected reality in which an excess of information does not, in itself, ensure the production of meaningful knowledge.

Since the creation of the first Mathematics Fair in 1985 in the state of Santa Catarina, the movement has gained adherence and visibility in other Brazilian states, such as Bahia and Sergipe, and more recently at the national level (Hoeller et al., 2015). This expansion highlights not only the potential of the initiative but also the

continuity of its foundational educational principles, which provide pedagogical coherence and formative intentionality across the different stages of the process.

Mathematics plays a central role in many aspects of everyday life; however, many students still perceive it as a complex and challenging subject. This perception underscores the importance of innovative and interactive pedagogical practices, such as workshops. Frequently linked to Mathematics Fairs, these workshops offer experiences that integrate theory and practice, providing participating teachers with opportunities to apply mathematical concepts in real-life situations. Beyond supporting conceptual understanding, such experiences foster authorship, experimentation, and student agency.

According to Hoeller et al. (2015), Mathematics Fairs promote the construction, reconstruction, and dissemination of mathematical and scientific knowledge from Early Childhood Education through Higher Education, including Special Education. Grounded in collective participation and in the active listening of classroom teachers, the fairs incorporate a model of continuing education in which assessment takes on a process-oriented, formative, and qualitative character. Within this context, mentors act as evaluators, and feedback becomes an instrument for reflection and pedagogical re-elaboration.

Mathematics workshops, in turn, play a strategic role in this formative process by making teaching more interactive and applicable, increasing student interest, and fostering the development of cognitive and socioemotional competencies. Active participation in working groups, conceptual discussions, and the resolution of real-world problems enhance collaborative learning and contribute to the formation of more autonomous and critical individuals. Moreover, the collective development of projects at the fairs encourages skills such as creativity, communication, argumentation, and cooperation—essential elements for a humanizing education.

Still according to Hoeller et al. (2015), Mathematics Fairs constitute fertile environments for collaborative work among teachers, students, and the community. They promote the exchange of experiences, the sharing of knowledge, and the joint construction of meaning, contributing to a teaching practice that is more reflective and responsive to the needs of the school context. Visits to the fairs by other teachers also represent formative opportunities, enabling contact with multiple projects, approaches, and teaching materials that can be reinterpreted and adapted to different educational realities.

Opportunities for reflection also extend to the fairs' evaluation process, involving evaluators, exhibitors, and mentors. When developed dialogically, feedback supports the review of conceptual, methodological, and formative aspects, enriching the trajectories of those involved. The community that attends the event likewise expands its understanding of Mathematics, recognizing its multiple applications and connections with other fields of knowledge.

In this way, Mathematics Fairs become spaces for articulating teaching, research, and outreach, allowing participants to experience new ways of teaching and learning. For teachers, workshops emerge as powerful spaces for professional development in which critical reflection on practice occupies a central place. As argued by Nóvoa (1992) and Tardif (2002), teacher education must be continuous, situated, and dialogical —characteristics present in the formative dynamics promoted by these events.

Thus, Mathematics Fairs assume a strategic role in building a more critical, collaborative, and humanizing education. By fostering spaces for encounter, authorship, and dialogue, they contribute to overcoming fragmented and overly instrumental school practices, bringing Mathematics closer to its social function: the education of reflective, creative individuals capable of engaging with reality responsibly and with a sense of collective commitment.

### **3 Research Methodology**

This qualitative and descriptive study focused on bibliographic research. Data collection was conducted using the CAPES Thesis and Dissertations Catalog, considering the time frame from 2015 to 2025 and selecting exclusively works that addressed Mathematics Fairs in connection with teacher education and collaborative practices.

Using the descriptor “Mathematics Fairs,” thirteen academic works were identified, including three doctoral theses and ten master’s dissertations. To meet the objectives of this study, the abstracts were analyzed and, when necessary, the full texts were reviewed. After a more careful analysis, one dissertation was excluded for addressing exclusively aspects related to the discipline of Psychology in Mathematics Education, without engaging with the proposed objectives. Thus, twelve studies were selected to compose the analysis presented in this article, and the results regarding the number of studies identified in the CAPES Thesis and Dissertations Catalog are summarized in Table 1.

Table 1 – Studies Selected from the CAPES Thesis and Dissertations Catalog

N.	Year	Author	Title	Type	Institution
1	2018	Silva, A. N.	A methodological proposal aimed at sparking students' interest in Mathematics	Professional Master's	UFSJ
2	2018	Silva, F. A. da	Expansion and socialization of knowledge and curricular innovation of Mathematics teachers: 1st State Mathematics Fair of Acre	Professional Master's	UFAC
3	2018	Assunção, E. M de	A group of teachers in a Mathematics Fair project: contributions to teaching practice	Professional Master's	UFJF
4	2021	Costa, N. de O.	An investigation into learning processes observed in students from the early years of Elementary Education participating in National Mathematics Fairs	Professional Master's	UFJF
5	2021	Santos, A. F. dos	Mathematics Fair and civilization: possibilities for (trans)formation of educational practices	Doctorate	UFSC
6	2021	Schroeder, T. R.	Mathematical education and articulations between institutions: a possibility of science education	Professional Master's	UDESC
7	2021	Vuolo, R. H.	On the teaching of geometry: a study based on productions exhibited at Mathematics Fairs	Professional Master's	UFSC
8	2022	Assis, S. M. de	Potentialities of the Mathematics Fair as a formative space for teaching practices among teachers who teach Mathematics	Master's	UNEMAT
9	2022	Nau, F. J.	Mathematical conceptions in the modality "Mathematics for..."	Professional Master's	UFSC
10	2023	Gonçalves, A.	Between memories and histories: the education of teachers as a Movement within the Mathematics Fair Network	Doctorate	UFSC
11	2023	Araújo, V. S	Contributions of Mathematics Fairs to the professional development of teachers who teach Mathematics in Tocantins	Master's	UFNT
12	2023	Zabel, M.	The Mathematics Fair as a possibility for educational praxis	Doctorate	UNESP/Rio Claro

Source: Prepared for this study (2025).

#### 4 Engaging with the Data

Reading the selected studies made it possible to construct a posteriori categories, developed based on the recurrence of themes, approaches, and contributions identified in the works.

Data analysis was conducted using the content analysis technique as outlined by Bardin (2011), allowing for a systematic and interpretive reading of the material.

Initially, an exploratory reading of the abstracts was carried out, followed by an in-depth reading of the full texts when necessary.

Based on this procedure, the studies were grouped into thematic categories such as teacher education and professional development; student learning and development; interdisciplinarity and curricular articulation; thematic modalities and philosophical conceptions; science communication and the valuing of Mathematics; and mapping and the historical perspective of the Fairs. These categories guided both the structure and the discussion of the results presented in this article. Table 2 provides a detailed explanation of each of these categories:

Table 2 – Categories of the Selected Studies, Developed *A Posteriori*

<b>Categories</b>	<b>Rationale</b>
1 – Teacher Education	Encompasses studies that highlight involvement in the Fairs as a space for continuing education, collaboration, and teacher reflection. Emphasizes the Fair as an environment for exchange among teachers, professional development through collaborative planning, the use of teaching materials, the reframing of teachers' knowledge, and active participation in the planning and implementation of the Fairs as a formative experience.
2 – Student Learning and Development	Includes research demonstrating how participation in the Fairs fosters students' skills such as autonomy, creativity, and communication. Draws on a Freirean perspective to analyze the potential of the Fairs to promote educational praxis, critical-reflective education, and the development of civic awareness.
3 – Curricular Interdisciplinarity	Examines how the Fairs promote integration among disciplines and contribute to interdisciplinary teaching praxis, as well as the analysis of textual productions and methodological challenges, especially in the teaching of Geometry within the context of the Fairs.
4 – Thematic Modalities	Discusses the epistemological dimension of Mathematics within the Fairs, proposing the restructuring of modalities based on alternative philosophical conceptions.
5 – Valuing Mathematics	Presents strategies for making Mathematics more engaging and accessible through the use of media and cultural resources that contribute to enhancing the discipline's value.
6 – Historical Perspective	Conducts historical, social, and epistemological analyses of the Network Movement of the Fairs, highlighting its collaborative and educational nature.

Source: Prepared for this study (2025).

The analyzed studies confirm the central objective of this research by demonstrating that the formative processes linked to the Network Movement of Mathematics Fairs (MRFMat) have significantly contributed to the continuing education of Mathematics teachers over time and across diverse educational contexts. However, further research on this topic is needed in order to gain a deeper understanding of the actual contributions of Mathematics Fairs. The role of the evaluation of projects presented at the Fairs is also noteworthy, understood as a transversal and ambivalent

element capable of both enhancing and limiting the development of critical teacher education.

Although the selection criterion adopted was the inclusion of works addressing Mathematics Fairs in connection with teacher education and collaborative practices, it was observed that some of the selected studies (such as numbers 4, 5, and 6) focus predominantly on students rather than directly on teachers. Even so, these studies were considered relevant to this article, as they allow for an assessment of how the fairs influence pedagogical practices and collaborative processes, indirectly reflecting on teacher education and the construction of shared educational experiences.

Among the selected works, studies 2, 5, 8, 10, and 11 stand out within Category 1, entitled “Teacher Education,” as they demonstrate how participation in Mathematics Fairs supports continuing education and the improvement of teachers’ pedagogical practices. Study 2 analyzed teaching knowledge reframed through participation in the Mathematics Fair of the state of Acre, showing how the socialization of experiences promotes transformations in curricular conceptions and practices. Study 5, developed through an action research methodology in the municipality of Juiz de Fora, investigated teachers’ involvement in planning and implementing the Fairs, highlighting collective participation as a space for exchange, learning, and professional engagement.

Study 8 examined the First Mathematics Fair of Barra do Bugres/MT (FEMABB) as a formative space in the early years of Elementary Education, emphasizing the promotion of innovative and reflective methodologies in Mathematics teaching. Study 10 addressed formative processes mediated by teachers’ memories within the context of the Network Movement, demonstrating how experiences at the Fairs foster critical reflection on practice and professional development. Finally, Study 11, a case study conducted at the Military School of Tocantins, analyzed teaching practices mobilized through participation in the Fairs, underscoring positive impacts on the construction of professional autonomy and the use of new teaching resources.

With regard to Category 2, “Student Learning and Development,” studies 4, 5, and 12 show how student participation in Mathematics Fairs contributes to the development of socioemotional competencies, autonomy, critical thinking, and student agency. Study 4 investigated the effects of participation in National Fairs, revealing advances in students’ attitudes toward Mathematics and in their recognition of its relevance to everyday life. Study 5 adopted the perspective of the Civilizing Equation to interpret the Fair as a space for critical-reflective education, contributing to the

formation of conscious and socially engaged individuals. Study 12, grounded in Freirean assumptions, conducted interviews with exhibitors from the Rio do Sul Fair, identifying both “denunciations”—critiques of the system—and “announcements”—transformative proposals—thus reinforcing the emancipatory character of the Fairs.

Studies 3 and 7 were grouped under Category 3, “Curricular Interdisciplinarity,” for exploring the potential of the Fairs to promote dialogue between Mathematics and other areas of knowledge, fostering interdisciplinary approaches and innovative pedagogical practices. Study 3 examined the Applied Mathematics modality, emphasizing the importance of articulating disciplines to broaden teachers’ perspectives and transform pedagogical planning. Study 7, by analyzing the approach to Geometry in works presented at the Santa Catarina Mathematics Fair (FCMat), identified innovative methodologies and challenges faced in teaching the subject based on experiences developed at the Fairs.

In Category 4, “Thematic Modalities,” Study 9 stands out for its epistemological reflection on the categories of the Fairs, analyzing the Pure Mathematics modality by contrasting absolutist and fallibilist conceptions of Mathematics. The study emphasized the need to broaden the epistemological understanding of the field, recognizing Mathematics as a human and historical construction.

Regarding Category 5, “Valuing Mathematics,” Study 1 investigated strategies aimed at popularizing Mathematics and stimulating student interest. The survey identified the use of resources such as films, books, and awards as motivational devices capable of making the teaching of the discipline more engaging and meaningful.

Finally, Study 6, included in Category 6—“Historical Perspective of the Movement”—examined the trajectory, principles, and collaborative networks of MRFMat, pointing to its consolidation as a plural and collective formative space grounded in a shared style of thinking.

Across the studies, it becomes evident that the formative processes promoted by Mathematics Fairs contribute to the construction of a collaborative and critical teaching practice aligned with Mathematics instruction and student inclusion. The ambiguous nature of evaluation at the Fairs is also highlighted, as it may function both as a promoter of criticality and as a limiting factor in teacher education.

The empirical analysis of experiences such as the Mathematics Fair of Barra do Bugres/MT, among others conducted in different contexts, indicates that these events function as third spaces for teacher education—hybrid environments between formal

and informal contexts that articulate theory and practice, foster professional development, strengthen teacher agency, promote pedagogical innovation, and support meaningful learning. Additionally, they broaden teachers' perceptions of Mathematics and its didactics, encouraging the use of diverse methodologies and the exercise of critical reflection on teaching.

However, the body of research also reveals significant weaknesses, particularly regarding the scarcity of spaces dedicated to debating the political, social, and cultural dimensions of teacher education. Issues such as meritocracy, working conditions, public educational policies, and resistance to theoretical thinking still receive limited attention in the formative discussions promoted by the Fairs, representing a challenge to the consolidation of critical and transformative education.

In light of the above, the Network Movement of Mathematics Fairs constitutes a relevant arena for continuing education by promoting the collective construction of knowledge, strengthening teachers' professional culture, and enhancing pedagogical practices in Mathematics. For its formative potential to be fully realized, it is essential to strengthen the connection between formal and informal educational spaces, as well as to incorporate a critical and contextualized approach to the issues that shape the educational field.

## **5 Final Considerations**

Mathematics Fairs, by bringing together theory and practice, investigation and collaboration, have established themselves as relevant formative spaces within the context of Basic Education. Through workshops, projects, and the socialization of knowledge, these events promote student agency, encourage teachers' critical reflection, and strengthen the ties between schools and the community.

Thus, rather than isolated initiatives, the Fairs take shape as transformative educational practices capable of breaking with the traditional transmission-based paradigm and bringing Mathematics closer to its social and civic function. The experiences analyzed demonstrate that teachers' active participation in these spaces contributes to the reframing of their pedagogical practices, the development of innovative methodologies, and the establishment of continuing education that is situated and collaborative.

From the students' perspective, experiencing Mathematics in concrete contexts fosters interest, enhances motivation for learning, and supports the development of cognitive, social, and communicative competencies. Formative assessment, in turn,

emerges as a structuring element of this process by promoting autonomy, participation, and the quality of learning.

The Network Movement of Mathematics Fairs is therefore reaffirmed as a proposal aligned with the principles of Critical Mathematics Education, representing a promising pathway toward building a more democratic, creative school committed to the holistic development of individuals. Accounts from teachers cited in the analyzed studies—participants in the Mathematics Fairs Movement—revealed formative processes that go beyond the mere transmission of content, incorporating dimensions such as writing, critical evaluation, and student inclusion. These aspects support studies that recognize the Fairs as third formative spaces in which academic knowledge and practical teaching experiences intersect.

The centrality of collective practices and the sharing of knowledge among teachers reinforces the understanding that professional teacher education occurs within dialogical and collaborative contexts—an essential condition for overcoming the dichotomy between theory and practice.

Another recurring aspect in the analyses concerns the role of assessment, understood as a transversal and complex dimension with the potential both to promote and to restrict critical education. This ambivalence points to the challenges experienced in everyday teaching practice, particularly regarding working conditions, tensions arising from meritocracy-driven public policies, and resistance to deeper theoretical engagement.

Recognizing these weaknesses and highlighting the need to expand spaces for political, social, and pedagogical debate is fundamental to consolidating the Fairs as effective arenas for critical and emancipatory education. The analyzed studies therefore converge in advocating for a more consistent articulation between different formative contexts—formal and informal—as a strategy to strengthen teacher agency and foster pedagogical practices committed to social transformation.

As an example, the development of a pilot project carried out in 2024 is noteworthy, in which the first local Mathematics Fair was organized at a municipal school in Birigui. Institutional bureaucracy and the limited time allocated for continuing education were identified as constraining factors for the implementation of formative activities. Despite prior scheduling with the school administration, meetings often had to be postponed or reorganized due to urgent demands issued by the Municipal Department of Education, directly affecting the continuity and depth of the formative process.

In this way, this study synthesizes and complements the body of research on the Network Movement of Mathematics Fairs, highlighting its relevance for advancing continuing education in the field of Mathematics Education. The Fairs thus constitute important strategies for pedagogical intervention and the collective construction of knowledge, with significant potential to enhance teaching practice and promote a more critical, meaningful, and humanizing mathematics education.

Nevertheless, the limitations of this research are acknowledged, pointing to the need for expanding investigations and incorporating new sources and analytical approaches in order to deepen and consolidate understanding of Mathematics Fairs as spaces for the socialization and production of mathematical knowledge. It is hoped that this study will be expanded in future, more comprehensive stages, contributing to the strengthening and growth of knowledge on this topic.

Accordingly, the reflections presented here serve as a starting point for subsequent investigations and for the continuous improvement of the practices and conceptions surrounding Mathematics Fairs in the educational context, reaffirming their relevance as instruments of pedagogical and social transformation.

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