Remote collaborative learning between teachers of different educational contexts

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ABSTRACT. Mastery of reading and writing by the school-age population has been an ongoing challenge for Brazilian education. With attention to this challenge, a piece of action research is being carried out, aimed at promoting collaborative learning, involving school units from three Brazilian regions and researchers from seven universities. The research aims are to evaluate the validity, viability and effectiveness of a university/school partnership, which lead to mobilizing knowledge in implementing, in school dynamics, innovative pedagogical practices aimed at the full mastery of writing, reading comprehension and the expression of thought in different languages. The development of the research took place from April 2019 to March 2020, in person, and since April 2020 remotely, with synchronous meetings, making use of a federal university's resources for remote teaching. This article refers to a period of remote activities (May 2020 to December 2021) and aims to: 1. analyze gains and losses in adapting research to remote contexts, caused by the COVID-19 pandemic; and 2. systematize knowledge produced during this period. This stage involved collaborative learning activities by basic education teachers, based on the adaptation of the Lesson Study model. All activities carried out are recorded on video, some which are the focus of the analyses presented in this article. As results so far, it was found that, on the one hand, collaborative learning between peers, promoted in the research, has enabled dialogue between teachers from different regions of the country (and the children themselves), deepening and diversifying their praxis in class; on the other hand, it is also possible to identify an appropriation, by the participants, of theoretical assumptions and concepts discussed and collectively agreed upon as guidelines for the elaboration of innovative pedagogical practices, that is not particularly autonomous.

Keywords: cooperative learning; teacher training; continuing education; basic education; inclusive education; innovation.

Aprendizagem colaborativa em formato remoto entre professores/as de diferentes contextos educativos

RESUMO. O domínio da leitura e da escrita pela população em idade escolar tem sido um desafio para a educação brasileira. Com atenção a este desafio, está sendo realizada uma pesquisa-ação, voltada à promoção de aprendizagem colaborativa, envolvendo unidades escolares de três regiões brasileiras e pesquisadores/as de sete universidades. Os objetivos da pesquisa são: avaliar a validade, viabilidade e efetividade de intervenções colaborativas, propiciadas por uma parceria universidade/escola, que levem ao adensamento de práxis pedagógicas dirigidas ao domínio pleno da escrita de alunos em contextos de diversidade, a partir da instrumentalização teórico-prática de docentes da Educação Básica, em diferentes linguagens. O desenvolvimento do trabalho ocorreu de abril de 2019 a março de 2020, de modo presencial, e desde abril de 2020 de modo remoto, com encontros síncronos, utilizando-se a estrutura para ensino remoto de uma universidade federal. Este artigo tem por objetivos analisar os ganhos e perdas na adaptação da pesquisa ao contexto remoto, bem como sistematizar e refletir criticamente os conhecimentos produzidos entre maio de 2020 e dezembro de 2021, tendo como base os registros digitais das atividades de aprendizagem colaborativa realizadas online. Esta etapa envolveu atividades de aprendizagem colaborativa de professores/as da educação básica, a partir da adaptação do modelo *Lesson Study*. Todas as atividades realizadas são gravadas em vídeo e algumas delas são foco das análises apresentadas neste artigo. Como resultados até o momento, verificou-se que, por um lado, a aprendizagem colaborativa entre pares, promovida na pesquisa, vem possibilitando interação entre professores/as de diferentes regiões do país (e entre as crianças), adensando e diversificando suas práxis em sala; por outro, identifica-se, ainda, apropriação pouco autônoma, por parte dos/as participantes, de

pressupostos teóricos e conceitos discutidos e pactuados coletivamente como diretrizes para a elaboração de práticas pedagógicas inovadoras.

Aprendizaje colaborativo en formato remoto entre maestros de diferentes contextos educativos

RESUMEN. El dominio de la lectura y la escritura por parte de la población en edad escolar ha sido un desafío permanente para la educación brasileña. Con atención a este reto, se está realizando una investigación-acción, con el objetivo de promover el aprendizaje colaborativo, involucrando unidades escolares de tres regiones brasileñas e investigadores de siete universidades. Se pretende evaluar la validez, viabilidad y eficacia de la alianza universidad/escuela, visando la movilización de saberes en la implementación de prácticas pedagógicas innovadoras, en la dinámica escolar, encaminadas al pleno dominio de la escritura, la comprensión lectora y la expresión del pensamiento en diferentes idiomas. El desarrollo de la investigación se dio de abril de 2019 a marzo de 2020, de forma presencial, y desde abril de 2020 de forma remota, con encuentros sincrónicos, utilizando la estructura para docencia a distancia de una universidad federal. Este artículo se refiere a un período de actividades remotas (desde mayo de 2020 a diciembre de 2021) y tiene como objetivos: 1. analizar ganancias y pérdidas en la adaptación de la investigación al contexto remoto, causada por la pandemia de COVID-19; y 2. sistematizar los conocimientos producidos durante este período. Esta etapa implicó actividades de aprendizaje colaborativo por parte de maestros de la educación básica, a partir de la adaptación del modelo *Lesson Study*. Todas las actividades realizadas son grabadas en video y algunas de ellas son el foco de los análisis presentados en este artículo. Como resultados hasta el momento, se constató que, por un lado, el aprendizaje colaborativo entre pares, promovido en la investigación, ha posibilitado el diálogo entre maestros de diferentes regiones del país (y los propios niños), profundizando y diversificando su praxis en sala; por otro lado, también es posible identificar una apropiación poco autónoma, por parte de los participantes, de supuestos teóricos y conceptos discutidos y acordados colectivamente como directrices para la elaboración de prácticas pedagógicas innovadoras.

Palabras clave: aprendizaje cooperativo; educación continua; formación de los maestros; educación básica; educación inclusiva; innovación

Introduction

At the beginning of 2019, we implemented a piece of action research as part of an inter-institutional project in Information and Communication Technology (ICT) and innovation in schooling processes for Inclusive Education: considering different contexts in Brazil and Spain[1], involving researchers from seven universities (six Brazilian and one Spanish), aimed at promoting collaborative learning with teachers from four public elementary schools and a hospital class, located in four different cities: Corumbá (MS), Belém (PA), Mesquita (RJ), and Rio de Janeiro (RJ). The objectives of the project are: to evaluate the validity, viability and effectiveness of collaborative interventions in University/School Partnerships, that mobilize pedagogical Praxis directed to the full mastery of students' writing in contexts of diversity, from the theoretical and practical instrumentalization of basic education teachers, in different languages. The issues that anchor the inter-institutional Project concern precisely the validity, viability and effectiveness of a University/School Partnership aimed at 'knowledge mobilization' (Fischman et al., 2018)[2] in implementing, in school dynamics, innovative pedagogical practices aimed at the full mastery of students' writing in a context of diversity, their reading comprehension and their expression of thought in different languages.

We define innovative pedagogical practices as those that attribute new meanings to conventional practices, with a view to the 'intentional and planned' implementation (Pastoriza, 2022) of teaching strategies that ensure equal learning opportunities, value difference, and promote inclusion (Antunes et al., 2017; Monge López &

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[2] For Fischman et al. (2018, p. 2), 'knowledge mobilization', understood as a set of strategies to share the knowledge produced within the scope of educational research with the educational community, includes "[...] includes iterative, purposeful, multidirectional interactions among researchers and groups (policy makers, practitioners, third-party agencies, community members) aimed at better understanding and improving educational organizations and systems."

Torrego Seijo, 2018). Based on the definition proposed by Panitz (1996), we understand collaborative learning as a philosophy of collective work that, valuing the contributions of each member of the group, seeks to build possible consensus through cooperation. We consider collaborative learning to be one of the most appropriate processes for promoting pedagogical innovation, in the sense attributed to the term by Torrego Seijo et al. (2016); Torres et al. (2004); Monge López & Torrego Seijo (2018); Carvalhêdo and Portela (2020). Focusing on the creation of innovative pedagogical practices aimed at the qualification of writing and the expansion of reading fluency and textual comprehension is justified by the tragic indicators in reading and writing of Brazilian schools (Alves & Ferrão, 2019). Ensuring full mastery of the language is among the main goals of the National Education Plan 2014-2024 (Federal law 13.005, 2014), aiming at the literacy of all children, the reduction of illiteracy indicators among young adults and the qualification of reading fluency and textual comprehension. The achievement of these goals depends on the implementation of public policies anchored in research results, permanent and planned investments in teacher education and school structure, precise and feasible objectives, financial and technical support to teaching work, quality of initial and continuing education of teachers, among other factors. It does not depend inescapably on the insertion of information and communication technologies (ICT) in schools, since these do not operate in isolation and do not promote actions that policy makers, managers and teachers have not been able to promote. However, the incorporation of ICT to pedagogical practices in reading and writing may contribute to expanding and qualifying children's communicative skills, their reading comprehension and their writing, configuring plural spaces for interaction and dialog, offering technical and theoretical subsidies for the free expression of ideas, favoring the creative appropriation of material in different languages, among other planned pedagogical actions and well defined objectives (Rojo & Almeida, 2012; Both et al., 2016; Naumann & Pischetola, 2017).

The research stage referred to in this article was carried out in 2020 and 2021, during which the Covid 19 pandemic occurred and social distancing measures were implemented. This stage involved collaborative learning activities of basic education teachers, based on the adaptation of the model *Lesson Study*[3] (Chokshi & Fernandez, 2004; Cerbin & Kopp, 2006; Muri, 2017) to the context in which the pedagogical activities of the teachers participating in the project were being carried out. In addition to implementing collaborative learning practices, which we believed could support teachers' activities, we also proposed to test the functionality and effectiveness of this adapted model and systematize and analyze the learning resulting from the interaction process between researchers, graduate and undergraduate students, and basic education teachers, in regards to the creation of innovative practices in reading and writing.

The proposal is still being implemented and, from a practical point of view, implies: 1) regular theoretical studies under the leadership of research coordinators; 2) collaborative creation of pedagogical activities in literacy, reading and writing, with the use of information and communication technologies; 3) implementation, by teachers participating in the research, of the planned activities, in their different contexts; 4) collective evaluation of the results; 5) reflections on practice (Praxis). The pedagogical practices created and implemented take into account the teachers' relationship with students, ensuring active participation of all, especially children with disabilities.

This article aims to analyze the gains and losses in the adaptation of research to remote contexts, as well as systematize and critically reflect the knowledge produced between May 2020 and December 2021, based on the digital records of collaborative learning activities carried out *online*.

Methodology

This is a piece of action research (Tripp, 2005) of a longitudinal nature, with a duration of 4 years, which includes a collaborative research approach (Ibiapina, 2008; Jesus et al., 2014) and collaborative learning. It provides for the promotion, observation, recording, monitoring and descriptive-interpretative analysis of collaborative learning activities (Panitz, 1996) of teachers regarding the co-creation, implementation and evaluation of pedagogical practices in reading and writing, with the use of ICT.

The first stage of the project was implemented in a school in Corumbá, a partner of the education and Citizenship research group, linked to the Graduate Program of the Federal University of Mato Grosso do Sul,

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[3] *Lesson Study* (classroom lessons) refers to an in-service teacher training model, originally developed in Japan and adapted in other countries. We will resume the topic in another section of the text.

Pantanal Campus, and in a hospital class of a philanthropic hospital, maintained by the Secretariat of Education of the state of Pará, in Belém, with work developed in partnership with the Paulo Freire Popular Education Center linked to the Graduate Program of the State University of Pará. According to the planning and execution schedule, the results of this stage should be presented and discussed in March 2020 and, following this presentation, the face-to-face research should be replicated in the other schools participating in the project: one in the city of Rio de Janeiro, one in Duque de Caxias and another in Mesquita (in the outskirts of Rio de Janeiro).

However, the closure of schools due to the covid 19 pandemic prevented face-to-face entry into other school contexts. The proposal was, therefore, adapted to a digital environment, both with regard to collaborative learning between researchers and teachers and, as far as possible, to the execution, together with the students of the participating schools, of remote educational activities planned together. As the project focuses on pedagogical practices in literacy, reading, and writing, teachers of the 2nd year of Elementary School were invited to participate. The change of format implied: 1) the adaptation of the research methodology and the collaborative learning model to a remote context; 2) the alteration of the activities to be proposed to the students.

In the second semester of 2021, some of the participants began to return to classrooms with their students, however, with the configuration of the research in three regions of the country, study meetings and activities' co-creation among participants continued remotely. During this period, the team consisted of seven researchers linked to the HEI partners of the inter-institutional project (Federal Universityo of Mato Grosso do Sul, Pontifical Catholic University of Rio de Janeiro, Rural Federal University of Rio de Janeiro, State University of Pará, State University of Rio de Janeiro, Catholic University of Dom Bosco, University of Alcalá), two recent PhDs, four graduate students *stricto sensu*, two scholarship holders for scientific initiation and 20 teachers of basic education. Also, in the second semester of 2021, a remote discipline considering the theme "pedagogical innovation and diversity", was offered as an elective in the graduate programs in education of Brazilian researchers. The discipline involved the entire team of researchers and was open to research participants and other academics. In March 2022, the results of the two years of execution were systematized and collaboratively evaluated in a face-to-face meeting of the entire team, held in the Pantanal campus of the Federal University of Mato Grosso do Sul.

The implementation of collaborative learning included adaptation to the research context of the model *Lesson Study* of in-service teacher training, evaluating the effectiveness and functionality of this adaptation. The choice of this model is due to the good results obtained in its implementation in Japanese schools, where it was originally developed, and also to successful adaptations in other countries, including Brazil (Fernandez, 2002; Dudley, 2013; Curi & Borelli, 2019).

In general, the training model in *Lesson Study* provides for: 1) identification, by participating teachers in their schools, of programmed content(s) of greater complexity and/or difficulty for students and/or that requires a more elaborate pedagogical approach to be the object of new teaching practices; 2) elaboration and detailed planning, by small groups of teachers of the same area of knowledge, of teaching practice(s) of that content(s); 3) implementation of the practice(s) by all members of the group, each in turn, with the support of others. At the end of the execution cycle, in which everyone has implemented the same practice in their classes, the group evaluates the executions and the results, in terms of interest, participation, and student learning and records, validates, reviews, modifies, eliminates, etc. that practice, depending on what was observed.

In the pilot project, implemented in 2019 in a school in Corumbá/MS, the model had not yet been implemented. The researchers held face-to-face meetings at school with 2nd grade students and their teachers, in which pedagogical practices were created in reading and writing, with the use of different languages, with the production of written records and photography. The results were systematized (Ferreira et al., 2021) to be taken as a reference in the implementation of the later stages of the research, by teachers linked to other school contexts. In the same period, the hospital class in Bethlehem, PA, developed activities with similar perspectives and purposes.

In March 2020, with the interruption of face-to-face school activities, teachers from Corumbá and Belém were invited to join teachers from other schools that would integrate into the project (Rio de Janeiro, Duque de Caxias, Mesquita) in online synchronous meetings, on video conferencing platform. The first meetings focused on theoretical training, with workshops and in-depth lectures on literacy, reading and readership.

At the end of the first year, the *Lesson Study* model was proposed and adapted to collaborative online learning and minigroups composed of teachers from schools in different cities were organized, so that each group had at least one teacher from each of the states (MS, RJ, PA). The choice to place teachers who work in schools from different locations in the same team aims to value diversity as a training element and enable a better understanding of the challenges and potentialities that involve the implementation of a common curriculum in different cultural contexts.

The project progresses with two types of meetings: a general meeting, in which the teachers of the basic network and the researchers participate, with the intention of carrying out studies, proposing activities and evaluating praxis; the second type refers to the meetings of collaborative work subgroups (the minigroups), always formed by teachers of the basic network of the three states that make up the research. General meetings take place *online* every 5 weeks, with the participation of all members of the research, on a videoconference platform. The perspective of collaborative learning is present at all times and in these meeting the themes that will be transformed into pedagogical practices by the members of the mini-groups are proposed and discussed. Collaborative learning procedures involve:

1. mini-group meetings for practice planning;
2. definition of the teacher who will implement the practice;
3. execution of the practice and written or audiovisual record, shared in a digital environment;
4. discussion and evaluation of the practice by the mini-group;
5. development and maintenance of digital communication and of interaction environments (*blog*, digital murals) to share records.

The mini-group meetings began to take place in 2021, in the interval between the general meetings, and their frequency depends on the activities that are being developed at each stage of the project.

All participants were informed of the objectives, risks, benefits and confidentiality guarantees associated with participation in the project and signed an Informed Consent Form (ICF). The children were offered a term of assent, in the format of a comic book, explaining the goals and characteristics of the research, which was handed to them by the researchers and/or teachers, depending on their location. The parents or guardians of the students were also requested to give consent for the children to participate in the project with the use of an ICF. The participants were informed and agreed that the meetings would be recorded and that the recordings and other materials produced in the process would be archived in a virtual archive, that coordinators and participants have full access to the archives and that these are the privileged source of monitoring and analysis of the process. Interpretative analyses of the material are carried out by the project coordination (researchers linked to the partner universities), at the end of each completed research stage, seeking to identify recurrences that allow producing inferences about the effectiveness of collaborative learning and its reflections on the creation of innovative pedagogical practices in different educational contexts. With the development of the project, teachers began to be invited to participate in the analyses, with the intention of fostering their protagonism as authors-co-authors in the research process.

Collaborative learning and intercultural education

We define collaborative learning as a process of building pedagogical knowledge, which occurs in a non-hierarchical way, with common objectives. It is a training strategy which seeks to promote reflections among peers based on a knowledge of experience, stimulate exchanges and build theoretical knowledge to improve pedagogical practice. It is, in a certain way, related to the collaborative research that, as Ibiapina clarifies in the presentation of his work in 2008, is about "[...] a type of research that brings together two dimensions of research in education, the production of knowledge and the continuous training of teachers" (Ibiapina, 2008, p. 7).

Collaborative work is pointed out as an adequate and effective way to promote transformative pedagogical strategies in school contexts (Carvalhêdo & Portela, 2020; Freire et al., 2022), to incorporate information and communication technologies into teaching-learning practices and expand teachers' media literacy (Brasilino et al., 2018), as well as to promote research on the organization of collective pedagogical work, through the transformation of reflective pedagogical practices.

Critical Interculturality is one of the references of the project because, whether in research or in training practices, local cultures and subjects are valued for having their own way of seeing and interacting with reality, enabling coexistence with cultural differences. According to Candau (2003):

> Critical Interculturality guides processes that are based on the recognition of the right to difference and the fight against all forms of discrimination and social inequality. It tries to promote dialogical and egalitarian relations between people and groups that belong to different cultural universes, working on the conflicts inherent to this reality. It does not ignore the power relations present in social and interpersonal relationships. It recognizes and assumes conflicts looking for the most appropriate strategies to face them (Candau, 2023, p. 148).

The recognition of the plurality of subjects, knowledge and cultural practices and the promotion of dialogue between them makes it possible to learn from coexistence and difference, diverting the gaze from the individual subject to the collective subject, which favors collaborative work. In the Freirean perspective, dialogue enables intercultural relations. "To be dialogical is to transform reality with the other and not invade the other's culture" (Oliveira, 2015, p. 99). For Freire (2001), the recognition of differences presupposes respect for the cultural identity of the other, which occurs in a social and historical context and implies "[...] respect for the other's language, color, gender, class, sexual orientation and intellectual capacity" (Freire, 2001, p.60). Accepting and respecting difference requires, in education, knowing how to listen to the other and be consistent in discourse and action (Freire, 2007). It's a listening that presupposes understanding and putting oneself in someone else's shoes.

Critical Interculturality in Paulo Freire has as reference not only the understanding that there are differences between cultures, but, above all, the appreciation of intercultural relations, which presupposes dialogicity and ethics. In this way, Critical Intercultural Education establishes dialogical and solidary interpersonal relationships and respect for the diversity of subjects and cultures, based on the "[...] assured right for each culture to act with respect for each other, freely risking to be different, without fear of being different, being each 'for themselves', only as far as it is possible to grow together" (Freire, 1993, p. 156).

The Education proposed by Paulo Freire enables a "[...] critical discovery that we are subject makers of a world that is cultural [...]"(Oliveira, 2015, p. 98), promoting the recognition of cultural identities and the plurality of forms of knowledge, which implies subjects, their knowledge, and cultural contexts be valued. In addition, it aims at the process of humanization, by placing the human being at the center of the educational process, being seen as a subject of their knowledge, history and culture, that is, seen as being historically rooted in the sociocultural context in which they live and with autonomy in thinking, creating, acting and intervening in the world. According to Brandão (2014, p. 76), education "[...] must be thought of and practiced as a multifocal scenario of cultural experiences of exchanges of experiences aimed at the creation among us of knowledge and the sharing of the experience of the endless exercise of learning".

Analytical-interpretative description of collaborative learning activities in remote format

For this text, we chose to report, analytically, processes that were effective in collaborative practices. In virtual meetings held in the first semester of 2020, it was decided that collaborative learning should aim to develop activities to be proposed (or sent) to students on digital platforms and/or in printed material, which parents collected in schools. The exception was in the hospital class, which continued to host face-to-face meetings, since it serves children undergoing medical treatment.

It was understood that it was necessary to theoretically substantiate the creation of remote pedagogical activities. For this, it was decided to hold pedagogical meetings *online*, which was attended by researchers from the universities involved in the project (including, at this stage, members of the University of Alcalá de Henares, Spain, partner of the project), graduate and undergraduate students and teachers of Basic Education from different locations. The synchronous meetings were held on videoconferencing platforms and the support materials, as well as the records of the activities carried out by the teachers, were hosted on a digital educational platform contracted by the Federal University of Mato Grosso do Sul (University headquarters of the inter-institutional project), accessible to all participants. The workshops had a total duration of 45 hours of synchronous activities and 3 hours of asynchronous activities, carried out in minigroups. Synchronous activities took place weekly and, on average, 32 teachers participated in them.

To streamline communication and ensure the implementation of activities, a teacher from each of the schools participating in the project took over the Coordination of teachers linked to municipal schools, acting in the intermediation of these with the general coordination of the project.

The first workshop offered at this stage focused on the development of remote activities to promote phonological awareness[4] and was attended by a literacy teacher linked to the municipal public network of Tarumã, a city in the interior of the state of São Paulo, which had been a pioneer in the implementation of remote education and was obtaining good results in literacy. The second workshop addressed activities that fostered the pleasure of reading and training readers, which could be carried out by children in their homes. The following workshop discussed discursive practices; the final workshop focused on the use of digital technologies to favor interaction between children and was taught by Spanish researchers, based on research results implemented in public schools in Madrid.

After the workshops, participants filled out process evaluation forms whose (anonymous) responses were presented and discussed at the last synchronous meeting, at the end of 2020. Figures 1 and 2 detail the institutional relationship of the participants. The first graph indicates the percentage of teachers, undergraduate students, and graduate students linked to higher education institutions and the second indicates the institutional link of basic education teachers.

Figure 1. Percentage of teachers, postgraduates and undergraduates participating per HEI.
Source: Interagency survey, evaluation form 2020.
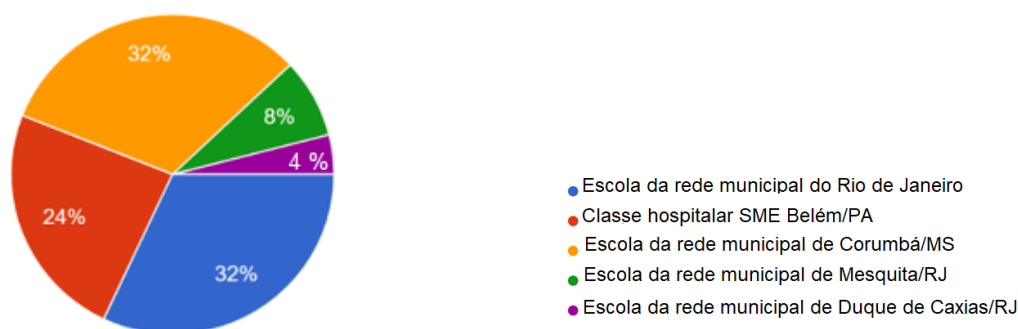
Figure 2. Percentage of participants linked to Basic Education schools.
Source: Interagency survey, evaluation form 2020.

In the form, the diversity of participating institutions was noted as a positive factor of the project. Teachers also indicated satisfaction with the focus of the studies and practices – reading and writing – and with the format of the workshops. Among the greatest gains was the collaborative work with colleagues from other states, which allowed a better perception of the diversity of school contexts, in addition to cultural exchanges, as can be seen in excerpts of testimonials recorded in the form:

The interactivity was wonderful. (Professor B).

[...] we were able to meet other people and see the works [they] are developing. (Professor N.).

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[4] 'Phonological awareness' is related to the ability to understand the phoneme-grapheme relationship and to consciously manipulate individual sounds, syllables and parts of syllables in Word formation (Soares, 2018).

It was a great learning experience, working with colleagues to create new ideas and develop them with my students. (Professor S.).

The exchange of experiences was very enriching. (Professor T.).

However, the evaluation of the activities carried out indicated a discrepancy between the perception of the researchers linked to the universities and that of the teachers of basic education. These were less satisfied with the process than the researchers, which indicated differences in expectations, confirmed in the discussion held in the synchronous meeting. The teachers evaluated the theoretical training as interesting, but most said they felt a lack of collaborative learning focused on pedagogical practices.

Based on the answers obtained in the form and what was discussed in the synchronous evaluation meeting, it was proposed to teachers to adopt, in 2021, the adapted model of *Lesson Study*. To deepen the experience with the new model, which presupposed the interaction between teachers from different schools, it was decided to configure the mini-groups with teachers from different regions. It was expected that Interculturality would offer new elements to collaborative learning by enabling relationships between subjects and differentiated cultural practices.

In 2021, six synchronous meetings were held, four of which were aimed at discussing pedagogical activities that promote dialogue between differences, based on the adoption of two themes proposed by the coordination: 1) Who Am I? How do I see myself? 2) Where do I live? to be worked on with students in the different educational contexts to which the teachers belong. The objective was to expand the interaction between teachers from schools in different regions and initiate contacts between students.

In the execution, some children recorded videos showing the place where they live; others made oral reports and drawings about their favorite places in the neighborhood or in the city where they live; others created maps with images of their city's sights; others wrote small texts about their place of residence. Videos from one school were shown to children from another school and 'audio-visual dialogues' were shown and discussed in the synchronous meetings. As part of the unfolding of the activities, the teachers presented, in a video, oral, and/or written report, the reactions and comments of the students watching the video made by the colleague from another location and the materials produced in response to the distant colleague.

This process reflected the presence of the intercultural dimension in collaborative learning, characterized by knowledge acquired from riverside communities of the Amazon, passing through the Pantanal of Mato Grosso do Sul and the peripheral context of the city of Rio, in which the debate on the potential diversity in the configuration of innovative and inclusive educational practices emerged, considering what Fleuri (2001, p. 56, emphasis added): "[...] each subject constructs their identity from different histories and cultural contexts. The relationship between different subjects constitutes a new 'inter ' cultural context. In this new context, not only individuals but also their respective cultural contexts are articulated".

Intercultural dimension of collaborative learning

The collaborative learning activities were reported and discussed in the synchronous meetings, held on a videoconferencing platform. The themes were experienced by the participants of the meetings, taking into account personal experiences and cultural contexts. After the joint discussions, the mini-groups were temporarily allocated in sub-rooms of the platform to elaborate a script for the execution of the themes with the students. These dynamics enabled exchanges of information about the different educational realities. In one of these moments, one of the teachers from Corumbá expressed surprise at the report of her colleague from Belém about the educational work in the hospital class:

In Corumbá we serve special education children and we have always been advised to work with concrete material.[5] I didn't know that we couldn't use [that kind of] concrete material. I did not have this knowledge, so it is good to work together, with various realities, to know a little about each thing. I did not have the knowledge that I could not use recycled material in the hospital class in Bethlehem. It didn't even cross my mind. And once again it shows the importance of sharing various situations and learning environments (Professor L., meeting 09/17/2021).

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[5] The teacher refers to 'recycled materials '(the name used by the Belém teacher) as 'concrete materials'. This probably indicates that the school where she works does not have concrete materials produced specifically for pedagogical purposes, so she needs to reuse common materials, which does not occur in the hospital class of Belém.

Faced with this comment, the teacher of the hospital class explained that all the materials used in that space needed to be carefully sanitized or sterilized to avoid contamination and that commonly used materials are more difficult to sanitize. Situations like this, in which educational contexts and pedagogical practices are compared spontaneously, have been configured as fruitful elements in the collaborative learning processes (Torres et al., 2004).

At different times, it was possible to perceive that reports of the educational work carried out in a certain context generated subsidies to understand the educational conditions in another context and raised questions about the impossibility of simply "replicating" pedagogical practices without adapting them to the local reality. The experience materialized the need to always make adjustments in the execution of the activity, co-created by the mini-group, in each school and even with each child, maintaining common assumptions and objectives. As Professor P. (Mesquita/RJ) reported, "[the exchanges] made us grow, both intellectually and through experience". It consists of a continuous participatory, collaborative training and reflection on the practices carried out in a group.

Results of other research on interlocutions between teachers in collaborative work (Carvalhêdo & Portela, 2020; Freire et al., 2022) point out that shared pedagogical knowledge and experiences pressure teachers to rethink their practices, in a permanent process of self-reflection and provide the emergence of new meanings for educational action.

The exchange that began between the teachers also entered the daily experiences in the schools involved in the project and the dialogue began to involve the children. The development of the topic 'Where do I live?' provided an unlikely 'dialogue' between a girl from the hospital class of Belém and a boy in care in the resource room of a school in Mesquita, in Baixada Fluminense, from the video narrative that the girl from Belém produced, with her mother's cell phone, about her place of residence.

Julia[6] lives in a riverside community near Belém, in a stilt house on a creek. While recording footage from the backyard of her home, her father arrived in a canoe, bringing fish he had just caught. In the recording, her father is seen getting off the boat, carrying the fish in his hand and showing them to her. In the background, a woman's voice (it could be her mother) and children's voices (possibly siblings) are heard greeting the man's arrival. The video has heart emoticons in image filters placed by the girl (Figure 3). The teacher posted an extract of the girl's narration and the background voices accompanying the narration on a digital board:

> This is my house. I live in the countryside. This is my backyard, as you can see.
> Woman says: Look, your father is coming, look! Fish! Wow! How beautiful! How good!
> The children say: Sardon! Sardon!

Figure 3. Fragments of the video recorded by a child of the hospital class from the theme 'where I live'.

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[6] Fictitious name. The recording was made with the authorization of the girl's mother, who also authorized the showing of the video to the children of the other school

Source: digital board of collaborative learning.

Julia's video was shown to Daniel[7], a child diagnosed with intellectual disability who is attended in the resource room of a school in Baixada Fluminense. In the script of the work done with the boy, the teacher recorded his great interest in the video, which she reviewed several times. He especially highlighted his enchantment with the stilt house over the water:

> He focused his attention entirely on Julia's House. He realized that it stands on a river, that it was made of wood, that her father arrived by boat and that he stepped directly on the stairs to go up to the house, that there were many trees around, that her father came with many 'live' fish! He wanted to know who Julia was (teacher's note)

Daniel drew Julia's House and the teacher proposed that he also make a model. She recorded the execution of the activity[8] and also a video response from the boy to Julia, in which he says that he would like to get to know her house and invites her to get to know the city where he lives.

In this meeting the knowledge of cultural aspects of the Riverside life of the Amazon was established, recognizing another's way of life, of the Riverside girl, establishing an intercultural dialogue between the two members of different social and cultural groups.

The materials were presented in the synchronous meeting, after which other video-dialogues were recorded with other children from different schools and shown to each other by their teachers.

Activities such as this attested to the fertility of intercultural dialogues between teachers and, through these, between the children of the schools where they work, configuring what we suppose to be a fertile soil for the continuity of the project in the coming years.

The collaborative learning relationship, created in the groups of teachers, with the support of studies and discussions in collective meetings (in which researchers and teachers participate) enabled the planning, organization and intentional execution of an activity that involved different languages necessary to read the world, and that contemplated quite diverse situations.

Provisional considerations

As already recorded, in the reported project, the collaborative learning mini-groups are composed of teachers from three regions of the country: North, Midwest and Southeast, each with different geographical and cultural characteristics. This format favors the interest in listening to and sharing reports of educational practices and contributes to members feeling motivated to discuss, compare realities, position themselves in front of colleagues, express convergences and divergences in the ways of conducting teaching-learning relationships, and, thus, build new knowledge together.

The collaborative learning among peers, promoted in the ongoing research, has enabled the interaction between what was lived in the context of the Amazon by the educators of the hospital class, whose educational work is aimed at children from riverside communities, in hospital treatment for having been victims of scalping by accident with a boat motor, the pedagogical activities of teachers from Pantanal schools, who serve Riverside and urban children, Brazilians and Bolivians, and the experiences of teachers from Baixada Fluminense, whose students experience a community marked by the inconstancy of public policies. In the encounter between origins, training and diverse professional experiences, knowledge, flavors and cultural practices of the subjects of the Amazon intersect with the worldviews of the Pantanal of Mato Grosso do Sul and with the contradictions that cross school education in the Baixada Fluminense, a region of rural origin, with forests and strong agricultural activity, subjected to an aggressive and uncontrolled urbanization process.

Over two years of joint work, teachers from these different contexts intertwined in intercultural dialogues that subsidized the creation and implementation of pedagogical activities. These, implemented with the children, gave rise to possibilities for reflection on their own life and housing contexts and contact with the reality of children living in distant and unknown places.

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[7] Fictitious name. The videos in which the teacher records the reactions of the boy and the activities he performed in dialogue with the video recorded by the classmate from Belém, were made with the authorization of the boy's mother and his own consent.

[8] The videos in which the teacher records the reactions of the boy and the activities he performed in dialogue with the video recorded by the classmate from Belém, were made with the authorization of the boy's mother and his own consent.

The interpretative reading of the materials produced by the teachers, the reports that accompany them and the discussions that took place during the synchronous meetings indicate that the execution, in different educational contexts, of activities created between peers, collaboratively, crossing experiences can favor the development of the capacity to integrate universal curricular contents with local knowledge and values. The fertility of collaborative learning in looking at children, their specificities and singularities, especially children with disabilities was also perceived, leading to small changes in teaching-learning relationships.

Evidence of recognizing the need for pedagogical practices to be centered on children and to promote greater autonomy in their relationship with the written language was identified in speeches, activity scripts, records and execution reports. However, this is still evidence captured in occasional comments, not solid empirical evidence. Collaborative learning that generates new practices implies knowing how to act and describe, listening to criticism, in addition to a significant improvement in the capacity for self-criticism, that is, it implies praxis, as defined by Paulo Freire (Carvalho & Pio, 2017). This requires time, coexistence, trust and listening, something difficult to build between teachers who work in different educational contexts and are so far from each other, whose interaction takes place exclusively in digital environments.

A less autonomous appropriation by the participants of the theoretical assumptions and concepts discussed was still noted and guidelines for the elaboration of innovative pedagogical practices were agreed on collectively, as defined by Torres and Irala (2021); Monge López et al. (2018); Carvalhêdo & Portela (2020). In general, previously incorporated pedagogical knowledge prevailed over the construction of new knowledge and practices, restricting the possibilities of innovation. It is complex and, in a way, uncomfortable, for teachers to admit that certain knowledge acquired in the exercise of teaching needs to be abandoned in favor of other approaches, which better meet the needs of students and provide more solid, autonomous and qualified learning. As argued by Charlot et al. (2022), teachers' relationship with knowledge implies 'internal mobilization', that is, "[...] to put yourself in a situation of movement with other objects that express desire, meaning, value" (Charlot et al., 2022, p. 4). This process is slow, it involves identification with knowledge" "[...] in a relationship with themselves and with their experiences built throughout professional training" (Charlot et al., 2022, p. 8) and requires a high burden of personal investment.

In addition, in the context of a pandemic, with numerous losses, suffering, family concerns and poor working conditions, it is much more difficult to move towards new learning. Thus, in many moments of the joint work, a tacit agreement seemed to be established between the teachers around the valuation and mutual approval of the practices carried out in the different educational contexts, without a critical evaluation, as foreseen by the model *Lesson Study*. Praise for the results – 'exciting', 'beautiful', 'you succeeded despite the difficulties' – prevailed in the meetings to discuss the pedagogical practices performed. This movement of 'self-protection' of the group indicates internal contradictions of collaborative learning, probably resulting, in this case, from physical distance and the impossibility of direct observation of the colleague's pedagogical practice, which meant that the mini-group had access only to fragments of it, edited in video.

However, it is necessary to record the fruitful and constant collaboration strategies undertaken in the mini-groups, recorded in the work reports and reported in the collective debates. These strategies involved: co-creation of pedagogical activities; production of didactic sequences; theoretical studies; reading and writing of texts; selection and creation of didactic materials; practice records; use of digital resources (cell phone cameras, video and audio editing programs, audio and video export and import, subtitling of audiovisual materials, real-time display, presentation applications), use of digital environments (digital murals, educational platform, virtual classroom, text repositories for shared writing, videoconferencing platforms, research sites, social media sharing environments, etc.). visual and audiovisual materials, interpersonal communication applications, screen sharing, etc.), among other procedures. It is evident, therefore, that the foundations on which collaborative learning is based are consolidated: partnership, availability for the new, solidarity, exchange of ideas and knowledge, teamwork and collective construction of knowledge (Torres & Irala, 2021; Freitas and Freitas, 2003), which gives a positive prognosis to the continuity of the project.

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