

## **Using Digital Technologies for School-Family Partnerships: A Case at a Brazilian Preschool During the Pandemic**

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*This paper presents a case of remote education during the COVID-19 pandemic with preschool students in Brazil. The sudden change from in-person to online instruction required innovative and creative ways to engage students and families in the learning process. Digital resources and technologies facilitated communication, instruction, and the promotion of strong and enriching school-family partnerships. Reflections on the experience's outcomes were based on Freire's (1987, 1989, 1996) concepts and perspectives on education, with a particular emphasis on the significance of context and collaboration. Both access and literacy in the use of digital technologies were sometimes barriers that had to be overcome. The proximity and partnership between school/educators and families brought invaluable gains that continued after the end of the remote teaching period. This new and complex pedagogical design and approach amplified the number of agents involved in the teaching-learning process of preschool students and pointed to transformations in the educational practices of the school where they were implemented. Among the changes brought by this experience is the families' greater empathy and respect for educators as well as their lasting and increasing will to engage in their children's education. This experience has also shifted the beliefs and practices of the educators involved as they not only learned new strategies but also kept on using many of them after students were back on site.*

**Keywords:** Remote education, School-family partnership, Early childhood education, Preschool education, Digital technologies

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This article shares an experience at a public preschool in Sao Paulo, Brazil, during the COVID-19 pandemic, when students were suddenly forced to transition to a remote delivery mode of education. The participants were a teacher and one group of 30 mixed-aged preschool

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children from 3 to 5 years old. The school of Early Childhood Education grouped children of different ages in preschool based Vygotsky's understanding that:

Learning awakens various internal developmental processes that are able to operate only when the child interacts with people and his environment and when in cooperation with his peers. Once internalized, these processes become part of the acquisition of children's independent development. (Vygotsky, 1991, p. 118)

This means that a more knowledgeable person can teach what they know to someone else. For instance, more experienced children could teach less experienced ones during interactions (Silva & Hai, 2016). Based on these ideas and following governmental guidelines, the school proceeded to mix children of different ages in the same classroom to benefit all children's learning and developmental processes (Prefeitura Municipal de Campinas, 2013).

When the COVID-19 pandemic became a serious global concern, Brazilian schools were suddenly required to change how education was delivered. Remote instruction became imperative, affecting students of all ages, including preschoolers. The lack of sufficient time to train teachers and prepare families for the instant changes posed significant challenges to the accomplishment of pedagogical practices, which primarily involved concrete and hands-on activities for motor and cognitive development with an additional intense focus on developing social skills facilitated by in-person interactions. The following sections will provide more details on those challenges and the strategies adopted to overcome them. Overall, the set of pedagogical practices applied by the teacher was perceived as positive by participants.

As highlighted by Kim and Sheridan (2015), “connections between families and schools are viewed as a key element of children’s positive adjustment and are linked to children’s academic, social, emotional, and behavioural functioning” (p. 1). Popular discourse among early

childhood educators tends to agree that the involvement of families in the educational processes of children is critical for an enhanced overall learning experience, and this aligns with multiple research findings (see Francis et al., 2016; Kim & Sheridan, 2015; Schuck et al., 2023). The Brazilian official document that includes guidelines for childhood education in the country also highlights that “education is a duty of the family and the State” (Ministério da Educação, 1996, para. 4). Considering this, it is crucial to acknowledge that much of the favourable outcome of this experience was the result of a positive and collaborative relationship between the teacher and the parents of the children involved.

The emergency remote teaching experience with this group of young children stimulated reflections that linked to Freire's ideas (1987, 1989, 1996). Freire's ideas were referenced and embedded in the text as the experience was described and unfolded. Ultimately, this paper's goal is to encourage conversations on the importance of school-family partnerships in early childhood education and the incorporation of digital tools and resources into children's education to develop digital literacy and skills essential in the 21st century.

### **The Experience: Transitioning to Remote Instruction**

Amidst the chaos brought upon by the COVID-19 pandemic, the Brazilian government declared the temporary closure of all schools in March 2020, mandating that students continued their education remotely. In that context, a group of 30 children between the ages of 3 and 5, along with their families and a teacher, participated in an emergency experience to facilitate the children's remote learning. Although the use of digital resources was already encouraged in the school pre-pandemic, the activities that children participated in did not require active engagement or mediation from families, whose involvement became necessary during the pandemic. To provide adequate support to families and facilitate communication between

schools and caregivers, the teacher created a WhatsApp group. In this group, the teacher used to post suggestions of educational YouTube videos as well as websites and blogs that offered children's songs, fun science experiments that could be easily reproduced at home, videos on healthy eating education, environmental preservation, anti-racist education, and other resources carefully selected to align with the school's pedagogical project. Communication, interaction, and relationships between teachers and caregivers gradually improved. Photos and videos of the children working on the suggested activities at home were shared so the teacher could provide feedback and encouragement to students and families.

Freire (1987) suggested that dialogue must always be embraced as an educational principle. This implies acknowledging that all those involved in the teaching and learning process teach something and learn from each other and that education must promote "reflection and action together" (Pouwels, 2019, p. 5). Freire's dialogic pedagogy is "a humanizing process and not just a transformative one" (Razzak, 2020, p. 1006). Similar principles supported the proactive engagement of the teacher with the caregivers to inquire about their and their children's interests so activities tailored to their preferences could be proposed. This proved efficient as families later voluntarily shared videos and links to educational content on the previously suggested topics. The WhatsApp group became a collaborative educational space where technology was used in innovative ways that promoted families' involvement in their children's education. Upon the return of the children to the school in November of 2021, families asked for the continuity of the WhatsApp group.

### **Initial Challenges in Building the School-Family Partnership**

During the 18 months of remote instruction, challenges existed that interfered with the success of the experience. One of the main issues experienced by some families was their poor

home internet connection and limited access to reliable electronic devices. This often went hand in hand with another problem: certain adults were not available to help their children with school activities for various reasons. Due to those problems, some children from that school and their families chose to be excluded from the experience described in this paper.

Another issue worth highlighting relates to the sudden changes in instruction delivery brought about by the pandemic that did not allow enough time for participants to prepare themselves for that situation. In addition, neither the government nor the school provided specific training and/or sufficient resources to support educators. Moreover, a significant number of teachers needed access to adequate electronic devices at that time and needed to gain the knowledge to research and use readily available digital resources and create digital content. A notebook was provided to teachers, but it had limited capabilities and poor memory space, and it could have been more helpful to those who already struggled with technology use. The lack of teacher training resulted in a significant increase in educators' workload, which needed to be reflected in their salaries, possibly affecting the motivation of some. Again, dealing with digital technologies in their professional practice was something many teachers at that school were not familiar with, and others were not open to, so this posed a significant problem to the effective continuation of the education of some groups during remote instruction.

In the experience described in this paper, the teacher's willingness and professional dedication were essential to successfully managing the situation. The teacher's openness to dialogue, use of digital technologies, and innovative pedagogical approach were essential to the positive outcomes observed during the emergency remote instruction period.

### **Positive Outcomes of the Experience**

The strategies adopted and the school-family partnership created during the remote schooling experience discussed in this paper enabled families to play a critical role in their children's education. At home and under the teacher's guidance, families had a similar role to educators in the classroom as they worked as mediators in the educational activities developed by the students. In doing that, caregivers became aware of the value and vastness of the pedagogical work developed by teachers. They could appreciate the diverse and varied curriculum experiences young students had access to, including art, science, environmental and food awareness, and emotional education (Ministério da Educação, 2010). Many families disclosed that they learned new things with their children, and there was a growing recognition of the importance of experiential learning in early childhood education.

Another positive outcome was related to the relevant shift in families' perception and usage of electronic devices and digital technologies in general. During and after this experience, families reported having learned how to use their devices in more purposeful ways, for example, to research and learn in addition to a mere means of entertainment. In this process, families and children explored and learned new technology methods.

Another noteworthy aspect relates to how this situation led to a collaborative learning community where everyone had a voice and actively participated in their learning, opposing the historically predominant traditional education approach that looks at learners as passive subjects (Freire, 1987). For example, families became more engaged when a father's magic experiment video was shared, inspiring participation from all. A teacher's video on the importance of bees for pollination also sparked discussion and led to two families sharing photos of their fruit plants and the health benefits they provide. These experiences integrated themes of early childhood education and fostered a movement of autonomy and collaboration in knowledge construction.

## Discussion

Using digital resources in this experience was essential to help build and strengthen school-family ties. School-family partnership is fundamentally important for early childhood education, and through this experience, families learned to participate more actively in the formal education of their children. This has also built a collaborative learning community that has brought invaluable gains to all participants. It is important to consider that this experience emerged from a new and unplanned situation, with no expected roles for families and educators *a priori*. The partnership between the teacher and the parents was elaborated as the experience evolved. Looking back at the experience and analyzing it through theoretical lenses makes it possible to understand how the teacher applied Freire's (1987) dialogic principle in her strategic decisions. The activities proposed to students were collaboratively discussed and designed in a dialectical movement where parents, children and instructors contributed and had a voice in the process. According to a study by Schuck et al. (2023) that investigated a similar situation, teachers reported that technology-mediated teaching "allowed for parents and teachers to gain better mutual understanding" (p. 297). The authors stated that technology-mediated instruction "also created the possibility of greater insight for both teachers and parents. Empathy from parents and teachers is crucial, as past research has shown that increased mutual understanding leads to better teacher-parent partnerships" (Schuck et al., 2023, p. 301).

The WhatsApp group worked as a safe space to share ideas and feelings, support each other, ask questions, build relationships, as well as give and receive feedback. This links to Freire's (1989) culture circle, a learning situation where everyone has a voice and an active role. Freire's culture circle idea is based on the teacher as a mediator, on dialogue and problem-based learning to empower those involved to change their reality through knowledge and awareness.

According to Freire (1989), in a culture circle praxis, each person is the author of their knowledge construction process, although the participation of others is valued. It is essential for teachers to design their actions with pedagogical intention, knowing the children's learning realities and needs.

In the current digital age, the development of specific skills and learning how to use digital devices and resources for acquiring knowledge and improving productivity are essential not only for preparing students for the future job market but, more importantly, for equipping citizens with reasonable conditions for inclusion and participation in society. Freire (1989) argued that literacy is not just about reading and writing but instead using these skills as tools for personal growth, social inclusion, and empowerment. By fostering digital literacy, individuals are better prepared to navigate an increasingly connected world and effectively contribute to the global community.

Finally, a collaborative learning community emerged among caregivers and the teacher with a focus on cooperation, collaboration, and mutual support during unprecedented circumstances such as emergency remote teaching. The interactions through the WhatsApp group allowed the engagement and active participation of families, fostering a sense of shared responsibility and ownership of the learning process, which could be particularly empowering for caregivers who may have felt isolated or overwhelmed during the pandemic. This sense of community and collaboration has proved to have lasting benefits, even after the remote teaching period ended, by encouraging ongoing communication, support, and shared learning among caregivers, teachers, students, the school community, and other stakeholders.

## **Conclusion**



The COVID-19 pandemic has forced schools worldwide to adopt new course delivery modes, and this experience of transitioning to remote instruction in a public preschool in Brazil signals the possibility of a new educational design and new practices in early childhood education. Overall, all those involved considered the outcomes of the experience positive. However, some limitations prevented more families from participating, such as poor home internet connection, lack of electronic devices, and lack of availability of caregivers to instruct and assist the children. These issues deserve to be addressed in future opportunities for a more inclusive experience that effectively embraces digital technology and resources in early childhood education.

In conclusion, creating a WhatsApp group was essential to support families during the emergency remote schooling period. It facilitated communication between schools and caregivers. Despite the challenges experienced, the strategies adopted and the school-family partnership created enabled families to play a critical role in their children's education. This experience resulted in a growing recognition of the importance of experiential learning in early childhood education and a relevant shift in how families perceived and used electronic devices and digital technologies in general. The situation led to the establishing of a collaborative learning community, where everyone has space and voice, corroborating the development of individuals actively participating in their learning.

### References

- Francis, G. L., Blue-Banning, M., Turnbull, A. P., Hill, C., Haines, S. J., & Gross, J. M. S. (2016). Culture in inclusive schools: Parental perspectives on trusting family-professional partnerships. *Education and Training in Autism and Developmental Disabilities, 51*(3), 281–293. <http://www.jstor.org/stable/24827524>
- Freire, P. (1987). *Pedagogia do oprimido [Pedagogy of the oppressed]* (17th ed.). Paz e Terra. [http://www.lettras.ufmg.br/espanhol/pdf/pedagogia\\_do\\_oprimido.pdf](http://www.lettras.ufmg.br/espanhol/pdf/pedagogia_do_oprimido.pdf)
- Freire, P. (1989). *An Importância do ato de ler [The importance of the act of reading]* (23th ed.). Cortez Editora & Autores Associados. [https://educacaointegral.org.br/wp-content/uploads/2014/10/importancia\\_ato\\_ler.pdf](https://educacaointegral.org.br/wp-content/uploads/2014/10/importancia_ato_ler.pdf)
- Freire, P. (1996). *Pedagogia da autonomia [Pedagogy of freedom]* (25th ed.). Paz e Terra. [https://edisciplinas.usp.br/pluginfile.php/5019418/mod\\_resource/content/1/Pedagogia%20da%20Autonomia%20-%20livro%20completo.pdf](https://edisciplinas.usp.br/pluginfile.php/5019418/mod_resource/content/1/Pedagogia%20da%20Autonomia%20-%20livro%20completo.pdf)
- Kim, E., & Sheridan, S. (2015). Foundational aspects of family–school connections: Definitions, conceptual frameworks, and research needs. In S. Sheridan, E. M. Kim (Eds), *Foundational aspects of family-school partnership research* (pp. 1-14). Springer International Publishing. [https://doi.org/10.1007/978-3-319-13838-1\\_1](https://doi.org/10.1007/978-3-319-13838-1_1)
- Ministério da Educação [MEC]. (1996). *Lei de diretrizes e bases da educação nacional [Law guidelines and bases of national education]*, Lei nº 9.394. Brasília: MEC. [https://www.planalto.gov.br/ccivil\\_03/leis/19394.htm](https://www.planalto.gov.br/ccivil_03/leis/19394.htm)
- Ministério da Educação [MEC]. Conselho Nacional de Educação [CNE]. (2010). *Diretrizes curriculares nacionais para a educação infantil [National curriculum guidelines for*

*early childhood education*].

[http://portal.mec.gov.br/dmdocuments/diretrizescurriculares\\_2012.pdf](http://portal.mec.gov.br/dmdocuments/diretrizescurriculares_2012.pdf)

Ministério da Educação [MEC]. (1998). *Referencial curricular nacional para a educação infantil* [National curriculum framework for early childhood education].

[http://portal.mec.gov.br/seb/arquivos/pdf/rcnei\\_vol1.pdf](http://portal.mec.gov.br/seb/arquivos/pdf/rcnei_vol1.pdf)

Prefeitura Municipal de Campinas [PMC]. (2013) *Diretrizes curriculares da educação básica para a educação infantil* [Curriculum guidelines for basic education for early childhood education].

[https://www.campinas.sp.gov.br/arquivos/educacao/04\\_diretrizes\\_infantil.pdf](https://www.campinas.sp.gov.br/arquivos/educacao/04_diretrizes_infantil.pdf)

Pouwels, J. (2019). We are in need of each other: Paulo Freire and the role of conflicts in education. *International Journal of Social Pedagogy*, 7(1), 1–15.

<https://doi.org/10.14324/111.444.ijsp.2019.v7.1.009>

Razzak, N. A. (2020). Paulo Freire's critical and dialogic pedagogy and its implications for the Bahraini education. *Educational Philosophy and Theory*, 52(9), 999-1010,

<https://doi.org/10.1080/00131857.2020.1716731>

Schuck, R. K., Lambert, R., & Wang, M. (2023). Collaborating with parents during COVID-19 online teaching: Special educator perspectives. *Education 3-13*, (51)2, 292-305.

<https://doi.org/10.1080/03004279.2021.1967421>

Silva, J. C., & Hai, A. A. (2016). O conceito de Zona de Desenvolvimento Proximal na educação infantil: Apropriações nas produções acadêmicas e documentos oficiais brasileiros [The concept of the Zone of Proximal Development in early childhood education:

appropriations in Brazilian academic productions and official documents]. *Perspectiva*,

34(2), 602-628. <https://doi.org/10.5007/2175-795X.2016v34n2p602>

Vygotsky, L. S. (1991). *A formação social da mente: O desenvolvimento dos processos*

*psicológicos superiores [Mind in society: the development of higher psychological processes]*. (4th ed.). Martins Fontes.

[https://edisciplinas.usp.br/pluginfile.php/3317710/mod\\_resource/content/2/A%20formacao%20social%20da%20mente.pdf](https://edisciplinas.usp.br/pluginfile.php/3317710/mod_resource/content/2/A%20formacao%20social%20da%20mente.pdf)