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THE SCHOOL AS A SPACE FOR LEARNING TEACHING: SUPERVISED CURRICULAR INTERNSHIP IN A PEDAGOGY PROGRAM AMIDST THE PANDEMIC

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Abstract: This article aims to analyze supervised curricular internship experiences in an undergraduate teacher education program in Pedagogy, in light of the challenges posed by Emergency Remote Teaching (ERT). The study follows a qualitative approach and analyzes the statements of interns and teachers. The internship, even during ERT, provided meaningful learning experiences, contributing to the development of teaching practice.

Keywords: Supervised curricular internship; Teacher training; Emergency Remote Education.

ESCOLA COMO ESPAÇO DE APRENDIZAGEM DA DOCÊNCIA: ESTÁGIO CURRICULAR SUPERVISIONADO EM UM CURSO DE PEDAGOGIA EM MEIO À PANDEMIA

Resumo: O objetivo deste artigo é discutir experiências de estágio curricular supervisionado, em um curso de licenciatura em Pedagogia, considerando-se os desafios do Ensino Remoto Emergencial (ERE) e as possibilidades da construção de um espaço virtual como ambiente de formação. A abordagem é qualitativa e analisou falas de estagiárias e professoras regentes. Conclui-se que o estágio, mesmo no ERE, assegurou aprendizagens significativas, contribuindo para o desenvolvimento da prática docente.
Palavras-chave: Estágio curricular supervisionado; Formação docente; Ensino Remoto Emergencial.

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La escuela como espacio de enseñanza-aprendizaje: prácticas curriculares supervisadas en un curso de pedagogía durante la pandemia

Resumen: Este artículo tiene como objetivo analizar experiencias de prácticas curriculares supervisadas, en una carrera de licenciatura en Pedagogía, considerando los desafíos de la Enseñanza Remota de Emergencia (ERE) y el espacio virtual de la escuela como entorno de formación. El estudio tiene un enfoque cualitativo y analizó testimonios de pasantes y docentes. Se concluye que la práctica docente, incluso en la ERE, proporcionó un aprendizaje significativo para estudiantes y docentes de educación básica en cuanto al desarrollo de la práctica docente en diferentes contextos.
Palabras clave: Prácticas curriculares supervisadas; Formación de profesores; Enseñanza remota de emergencia.

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1 INTRODUCTION

The COVID-19 pandemic introduced a series of challenges and setbacks to teacher education processes, including undergraduate degree programs. Due to the requirements for social distancing and isolation, institutions of Basic and Higher Education were confronted with the necessity of suspending their in-person classes, resuming them as soon as the adoption of strategies capable of mitigating the impacts of the suspension became urgent, in the format of the so-called Emergency Remote Teaching (ERT).

If, as advocated by legislation and evidenced by scientific production in the field, teacher education is constituted through the inseparability of theory and practice (Lima; Pimenta, 2006), activities such as those about internships became a veritable challenge amidst the pandemic scenario. How was it possible, then, to ensure the importance of the school as a locus for learning and teaching, despite the restrictions imposed by the pandemic? Is it possible to guarantee the potency of the school environment regarding teacher education even if the conceptions of materiality and physical presence have been subverted by the virtual realm? Drawing upon these and other questions, the general objective of this article is to discuss experiences of supervised curricular internships in a Pedagogy undergraduate program, considering the challenges of Emergency Remote Education (ERE) and the possibilities of constructing a virtual space as a formative environment.

Regarding the structure of the text, following this introduction, there is an analysis of the pandemic and the new demands for professional learning, addressing the school as a virtual, yet real, space within the pandemic scenario. Subsequently, the Technological Pedagogical Content Knowledge in the virtual school environment and the generational gap amidst supervised internships during Emergency Remote Teaching are presented. Following this, the methodology is detailed. Subsequently, the data are discussed based on testimonies resulting from a panel debate conducted as a means of reflecting on experiences within the practicum course for the early years of elementary education. Finally, the article presents the concluding remarks that summarize the discussion.

2 THE PANDEMIC AND THE NEW DEMANDS OF PROFESSIONAL LEARNING AND TEACHING PRACTICES: THE SCHOOL AS A VIRTUAL, YET REAL, SPACE

The crisis caused by the COVID-19 pandemic in 2020 demanded adaptation from Basic and Higher Education institutions as a means of mitigating the impacts of the suspension of in-person

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classes. Due to the isolation and social distancing measures recommended by the World Health Organization (WHO) and national agencies, Emergency Remote Teaching (ERT) was seen as a viable and necessary alternative, despite the problems encountered. Some of the criticisms leveled against this form of organizing educational processes precisely target the lack of preparation, training, infrastructure, adequacy, etc., given the urgency that characterizes emergency solutions during periods of crisis (Moreira; Schlemmer, 2020; Castro; Queiroz, 2020; Hodges et al., 2020; Saldanha, 2020).

To initiate this discussion, it is necessary to conceptually define what is understood by Emergency Remote Teaching, given that its specificities directly impacted the internship experience reported herein. “The term remote means distant in space and refers to a geographical distance” (Moreira; Schlemmer, 2020, p. 8). According to Saviani (2020), Emergency Remote Teaching (ERT), more recently, could be understood as a substitute for in-person teaching during the pandemic period; that is, while face-to-face education was suspended. However, experiences predating the pandemic period can be cited, as emergency education proposals have historically been utilized during periods of crisis, such as wars or armed social conflicts.

The technology upon which the ERE relies also varies, with experiences involving the use of radio, television, and correspondence (Moreira; Schlemmer, 2020). In any case, what defines this peculiar form of organizing the educational process is, in addition to its emergency nature, the separation in time and/or space, as well as the use of diverse technologies that mediate the teaching-learning process and enable pedagogical interaction (Veloso, 2022; Veloso; Mill, 2024).

Although by the aforementioned definition, ERE resembles Distance Education (DE), a schism has been established between the two in discussions, including academic ones, given the emergency nature that particularized the experiences during the pandemic. The distance modality is regulated by Article 80 of the National Education Guidelines and Framework Law (LDB). Changing its historical development, the most recent DE legislation, resulting from Decree No. 12,456/2025, introduces significant limitations regarding the possibility of offering teacher training at a distance, instituting what has more recently been called the “blended learning modality” (Brazil, 2025).

Regardless of legislative transformations, distance education (ED) is, in fact, viewed as a regulated modality that demands qualified professionals, pedagogical planning, adequate materials and resources, and specialized technological infrastructure, among other requirements (Brasil, 2017). This signifies that, unlike distance education, emergency remote education (ERE) possesses the

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conspicuous characteristic of exceptionality, as it compels educational proposals into a remote format for a determined period; that is, for the duration of a specific moment of crisis. “It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses, and that will return to that format once the crisis or emergency has abated” (Hodges et al., 2020, online).

Although theoretical definitions are a field of contention, with objections raised regarding the oppositions made between Distance Education (DE) and Emergency Remote Education (ERE) (Veloso; Mill, 2024), we need to specify that the temporal and/or spatial distance, a characteristic of both, has direct implications for pedagogical practice. Given the importance of reflective practice for the development of pedagogical content knowledge (Mizukami, 2004), ensuring the school environment experience as a privileged moment in teacher education became a challenge during the pandemic. Amidst ERE, the school became virtual. The teaching-learning process began to be mediated by digital technologies, and physical presence was subverted.

Nevertheless, it is noteworthy that temporal and spatial distance, in and of itself, does not imply the depletion of exchange between subjects. Given that, in the development of teaching practice, the role of the Other is foundational to the constitution of the Self (André et al., 2017), one must consider the efforts made during the Emergency Remote Education (ERE) period to construct a social presence and a dialogical space despite the physical separation among those involved in the internship practices. In other words, the experience during the pandemic period allowed us to confirm the importance of Pedagogy, which, for Pimenta (1994), can be defined as the field that studies education as a social practice. That is, as a practice that only affirms and constitutes itself insofar as it depends on social relations. These relations, in a society marked by the digital, are not restrictThe school environment is thus composed of different actors—teachers, students, interns, pedagogical supervisors, principals, the community, etc.—such that, during the internship in Environmental Education, an effort was made to emphasize the importance of this space, which is, above all, a human environment of exchanges and interrelations. Certainly, the physical and temporal distance introduced new challenges and problems. Although virtual, the school environment could only be established as a space for learning and teaching by being constructed by actors, that is, the social subjects who are part of it.

As a foundation for what we propose, it is worthwhile to revisit the concept of the virtual. According to Lévy (1999, p. 49),

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> In the philosophical sense, the virtual is obviously a very important dimension of reality. However, in common usage, the word virtual is often employed to signify unreality—whereas "reality" presupposes a material actualization, a tangible presence. [...] Generally, it is believed that a thing must be either real or virtual; that it cannot, therefore, possess both qualities simultaneously. Nevertheless, strictly speaking, in philosophy the virtual is not opposed to the real, but rather to the actual: virtuality and actuality are merely two different modes of reality. [...] The virtual exists without being present. [...] Cyberspace encourages a style of relationship almost independent of geographical locations (telecommunication, telepresence) and the coincidence of times (asynchronous communication).

Thus, the experiences during the internship at ERE, within a virtualized school environment, demonstrated that the virtual is not unreal. They evidenced that, indeed, many conceptions related to time, space, human relations, practice, learning, teaching, etc., were fundamentally re-signified. However, despite the challenges, we observed that the interactions between the subjects—especially teachers and interns—were not “less real” or less significant. The pandemic compelled us, often even unconsciously, toward the efforts of constructing a virtual, yet still real, school environment. More than that, it clarified the importance of human relationships that not only permeate but also enable the constitution of the school as a locus for the learning of teaching

According to Mill (2006), a virtual classroom possesses a distinct configuration from the traditional one, yet it remains a space properly defined as such. This is because it carries a strongly symbolic dimension, given that spaces, as places, are constructed through meanings and representations, not depending solely on material arrangement (Mill, 2006). In fact, the school space, although also constituted by the physical characteristics and the materiality that circumscribes it, possesses a symbolic value dependent on the social relations and the actors who constitute it. It is a fact that the virtual classroom is distinct from the in-person one; it is not, however, less real than any other space composed of human beings. We therefore reiterate that the virtual is not unreal. It merely complexifies and introduces other implications—both positive and negative—for education as a social practice.

Based on the experience with interns in an undergraduate Pedagogy course during the ERE, we will seek to identify and analyze these implications within a school environment characterized by virtuality and other nuances that diverge from those commonly encountered in face-to-face pedagogical practices. In the subsequent section, we introduce the discussion concerning the centrality of technological knowledge in these virtual and, therefore, real experiences.

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3 THE TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE (TPACK) IN THE VIRTUAL SCHOOL ENVIRONMENT: GENERATIONAL CLASH AND ROLE SUBVERSION

We proceed from the premise that, despite its emergency nature, Distance Education (DE), much like Emergency Remote Education (ERE), distinguishes itself as a peculiar form of organizing the educational process insofar as the subjects are separated in time and/or space (Veloso; Mill, 2024). This implies the use of technological resources that enable pedagogical mediation. Discussions regarding the specificities of virtual teaching are thus relevant for teachers who faced the necessity of re-signifying knowledge when working remotely during the pandemic. It should be recalled that virtualization, in the philosophical sense adopted herein, is not opposed to reality. Therefore, teaching in virtual environments, as a variation of reality, produces new notions of space, presence, distance, and proximity, but does not preclude the need for content knowledge which, when combined with pedagogical knowledge, generates the reasoning inherent to the teaching activity, just as occurs in face-to-face education (Shulman, 2014).

What changes, both in Distance Education (DE) and in Emergency Remote Education (ERE), is the requirement for specific knowledge focused on the appropriate use of digital technologies. These technologies transcend the role of a mere didactic resource available to the teacher to become the very core of the existence of teaching and learning. Mishra and Koehler (2006), building upon the knowledge base proposed by Shulman (2014), assert that, in contemporary society, mastery of technological resources becomes an imperative. Unlike in the past, recent technologies are no longer "invisible," as they demand specialized and specific knowledge aimed at their comprehension (Mishra; Koehler, 2006). By introducing technology as part of the knowledge base for teaching, these authors propose a new conceptual framework that culminates in the so-called Technological Pedagogical Content Knowledge (TPACK). This represents the amalgamation resulting from the intersection of content, pedagogical, and technological knowledge. TPACK, according to Mishra and Koehler (2006, pp. 1,028–1,029), is defined as:

> […] an emergent form of knowledge that transcends all three components (content, pedagogy, and technology). This knowledge differs from that held by a disciplinary or technology expert, as well as from the general pedagogical knowledge shared by teachers across disciplines. TPCK constitutes the foundation of effective teaching with technology and necessitates an understanding of the representation of concepts using technologies; pedagogical techniques that employ technologies constructively to teach content; knowledge of what renders concepts difficult or easy to learn and how technology can help mitigate some of the challenges

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> students encounter; knowledge of students' prior knowledge and theories of epistemology; and knowledge of how technologies can be utilized to build upon existing knowledge and to develop new epistemologies or reinforce established ones.

In the same way as pedagogical content knowledge, TPACK is also, and above all, constituted by reflective professional practice. This practice, during pandemic times, occurred amidst numerous urgencies and uncertainties (Oliveira; Silva; Silva, 2020). Certainly, the experiences in Emergency Remote Education (ERE) within virtual school environments were decisive in mobilizing knowledge that converges toward the construction and consolidation of TPACK. Beyond other specificities that characterized internships in virtual environments, the use of technologies ceased to be an option and became a sine qua non condition for the exercise, or even the possibility of existence, of the teaching-learning process. This implies that those educators with little or no mastery of digital technological resources faced a series of difficulties.

In these virtual school environments where technology, and consequently TPACK, were brought to the core of activities, an inversion in the typical structure of the relationships between teachers and student-teachers was observed, for instance. Indeed, a critical reading of pedagogical practice demonstrates that the learning of teaching is composed of reciprocity, within a dialogical process, and is therefore a joint construction of knowledge (Freire, 1994). This means that conceiving of teaching practice in internships in a vertical manner, based on markedly asymmetrical power relations, can become a contradiction for critical discussions on teacher education.

It is necessary to consider the existence of roles assumed by the subjects whose exchanges comprise, on the one hand, experienced teachers and, on the other, interns in the process of insertion into the school environment. The remote internship and the centrality of TPACK during activities in Emergency Remote Education (ERE) provoked a veritable subversion of the established order. At certain moments, the interns assumed the role of the experienced professionals, as many possessed greater facility in the use of technologies.

We observe a generational gap marked by discrepancies in the domain of technological resources. It is indeed true that research findings, such as those by Falcão (2019), allow us to problematize the notions of digital natives and immigrants, as conceived by Prensky (2001). The mere fact of being born into a digital culture, although it may lead to greater instrumental proficiency and less aversion to contemporary technologies, does not necessarily imply a critical use of modern technological resources. This observation confirms the importance of TPACK for teaching, as

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specialized knowledge that originates from initial and continuing education, but also, and especially, through reflective professional practice. The effective use of technologies in teaching-learning situations is not an innate ability. On the contrary, it is constructed in light of the inseparability between theory and practice.

Despite this, the internships during the ERE made evident the generational gap between experienced teachers and interns undergoing initial training. The virtual school environment demonstrated that greater instrumental mastery and potentially lower aversion to technologies create fertile ground for the development of TPACK. Being a digital native, if we use Prensky's (2001) expression, does not imply, by inference, the appropriate use of technological resources in pedagogical proposals. However, having a certain prior mastery of that technological knowledge, which is part of TPACK, can facilitate fruitful intersections with content and pedagogical knowledge.

Furthermore, the exchanges during the internships, which subverted a commonly expected relationship between experienced teachers and student teachers, reaffirmed that the school environment, whether virtual or in-person, is the privileged locus for constructing the foundation of pedagogical knowledge. The internships during the ERE contributed, moreover, to problematizing the generally accepted view in teaching practices: on one hand, teachers with greater experience who, precisely because of this, assume the role of mentoring and thus teaching through experience; on the other hand, inexperienced student teachers who go to school merely to learn. Being intricate by nature, human relationships within the scope of professional teacher development are not reduced to a verticality between those who teach and those who learn. On the contrary, as Freire (2015) had already discussed, teaching is characterized by the dialectic expressed in the concept of "teach-learning" (dodiscência)—in the inextricable nature of teaching conjoined with learning.

The internship within the ERE, circumscribed by the virtual school environment, shook the conventional structures of the school setting and, at certain moments, positioned the students as more experienced subjects in the use of technologies. This occurred without, however, diminishing the central role of experienced teachers who, possessing greater mastery of content and pedagogical knowledge, contributed to the formation of future licensees, assisting in the construction of TPACK. What remains for us, as elementary learning derived from the experiences in the ERE, is the necessity to emphasize the importance of reflective professional practice for teacher education and, furthermore, the ratification of professional development in a field that depends on and only exists as such through human and social relationships.

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Everyone has something to teach, just as everyone has something to learn. Without diminishing the authority and central role of the experienced teacher, we advance in ERE with the legacy of reflecting upon the complexity of pedagogical practice. Furthermore, this involves reflecting upon the impossibility of conceiving teacher training, whether virtual or in-person, without the human and dialectical exchanges that essentially arise from practice within the school environment.

4 METHODOLOGY

This research employs a qualitative approach and originates from the second author's experience regarding the supervision of mandatory curricular internships within the Pedagogy undergraduate program at the Federal University of Lavras (UFLA). Notably, the accounts date from 2021, a period marked by the pandemic and the implementation of Emergency Remote Education (ERE), which, as previously discussed, necessitated the adaptation and redefinition of school practices. These practices were mediated by digital technologies and occurred in virtual spaces, which the supervising teachers in the schools often did not master and also needed to adapt to in the face of an adverse scenario. The internship was, therefore, challenging, not only because it was conducted online but, above all, because it required all involved parties to adopt a critical perspective and demonstrate resourcefulness in dealing with the difficulties posed by the COVID-19 pandemic and ERE.

The data to be analyzed in the next section result from the sharing that occurred during a synchronous meeting, mediated by the Google Meet platform, which took place within the scope of the course “Practices in the Early Years of Elementary Education.” This course is linked to the mandatory internship for this stage of basic education and was designed to record, discuss, and reflect upon the experiences lived. This course is part of the mandatory curriculum for the undergraduate degree in Pedagogy at UFLA. Specifically, the course, associated with the curricular internship, is offered in the 8th semester of the program, which comprises a total of 9 semesters.

The aforementioned meeting was designated a panel debate and was held on November 24, 2021, mediated by the internship supervisor. On this occasion, the interns gathered and reported their experiences, emphasizing the dilemmas encountered in teaching—specifically, the classroom management activity. Also participating in the panel were some of the cooperating teachers who were invited and accepted the invitation. The conversation was recorded and subsequently transcribed using

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the generative Artificial Intelligence (AI) tool Tactiq <https://tactiq.io/>. The data were then analyzed by the researchers in light of the theoretical framework.

Quantitatively, 30 students and 3 supervising teachers participated in the panel. The selection criteria were participation in the internship experiences during the Emergency Remote Education (ERE), within the scope of the aforementioned course, and availability/interest. The conversation was recorded with the participants' consent, and it was explained that the data could subsequently be used for teaching, research, and outreach activities, while preserving the confidentiality of those involved. The meeting lasted exactly 2 hours and 26 minutes. On that occasion, as mentioned, experiences during the internship activities in the ERE were discussed, such that the debate repeatedly emphasized work with teaching cases—a training instrument based on the studies of Shulman (2014).

The transcription produced by Tactiq was analyzed through the development of specific categories. Initially, the material was read in its entirety with a view to mapping and identifying potential central axes of analysis. Subsequently, the construction of categories proceeded, informed by the pivotal elements observed in the transcription. The written document was, therefore, systematized based on the following axes of analysis: internship experiences during Emergency Remote Education (ERE); the redefinition of roles and teaching practice; the school environment (even virtual) as a space for teacher training; and the challenges and potentialities of remote internships. In the next section, we present the results of this analytical endeavor, substantiating the analyses within the aforementioned axes. At times, we will resort to presenting full excerpts from the transcription that help us support arguments and inferences. The empirical material will be discussed in conjunction with the theoretical framework constructed throughout these pages.

5 FIVE INTERNSHIP EXPERIENCES DURING EMERGENCY REMOTE TEACHING: RECONCEPTUALIZATION OF ROLES AND TEACHING PRACTICE

The testimonies provided by the interns, along with the supervising teachers from the schools, stemming from the prompts made by the internship professor regarding the learning experiences, challenges, and achievements experienced by the group throughout the internship, offered us an in-depth perspective on the challenges of the virtual classroom. The difficulty in utilizing digital technologies was noticeable, given that, amidst Emergency Remote Teaching, experienced teachers were compelled to use these tools as a means of mediating teaching and learning and, consequently,

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mitigating the implications of the suspension of in-person classes. This abrupt transition from in-person to virtual instruction exposed structural and formative problems. Let us consider the statement of one student.

> Thus, I believe that the situation, the problem I encountered during the internship, was very specific to our teacher, who we found somewhat — somewhat desperate regarding technology, computers, the internet, Google Meet, and the need to redefine WhatsApp groups. And what did we observe? During the pandemic, there was a lack. I believe there was a lack of training for educators concerning internet-based technologies, right? And some, I won't say the older teachers, but the teachers who genuinely struggle with the virtual world, the internet, and these media tools. And a specific situation that occurred was during our very first contact with the teacher: she asked us to plan a lesson, specifically a mathematics content lesson, that utilized videos and slides, because at some point during the pandemic classes, with the help of another person, she felt that the children became more engaged when there were videos, slides, photographs, and drawings, right? So, we planned the lesson, conducted the teaching, and she truly observed afterward; she was very grateful and spoke about the importance of these resources for the children's learning, right? Therefore, I believe that what is missing, or what was missing, actually, but what happens is that the use of ICTs, of technologies, does not need to be confined solely to remote teaching, as it was. Because it seems like it's only for that moment, for the pandemic, and then it ends. But no, right? Many schools have computer labs, and they have other tools. So, that's it. So, it's just the same issue: I felt there was no training, and if there was, it was very little, right? There was no follow-up with the educators to see if they needed any assistance or anything like that (Student A).

In Student A's speech, it is noticeable that, at a certain point, the supervising teacher requested that the intern's teaching activity, focused on Mathematics, utilize technological resources such as videos and slides. This information, when contrasted with Student A's perception regarding the supervising teacher's apprehension and lack of proficiency, demonstrates that there was, as mentioned, a subversion of roles. The intern, still in training, had greater facility with technological tools, thus becoming, in the dialectical relationship of the classroom, the guide for the construction of activities involving digital technologies. Meanwhile, the supervising teacher, an experienced educator and, in the roles commonly assumed during the internship, responsible for contributing to the preservice teacher's education, found herself facing the necessity of genuinely learning. Furthermore, in the speech, the perception of formative gaps during Emergency Remote Education (ERE) is notable, given the fact that teachers were generally unprepared to deal with virtual teaching.

However, as TPACK theory confirms, the mastery of technological knowledge alone is insufficient to account for teaching activity. The confluence of pedagogical and content knowledge is indispensable. In this sense, the supervising teachers, possessing more experience and a greater mastery of what Shulman (2014) advocates as pedagogical content knowledge, directly influenced

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the training of the interns. Let us consider a situation in which a strictly pedagogical challenge mobilized competencies originating from reflective practice, which were consequently more comprehensive and consolidated in the case of the supervising teacher, who was more experienced in terms of teaching and learning.

> To provide a little context, I must mention that I have been following this second-grade class for some time, for months. Thus, with the return of in-person classes, the number of children in online classes decreased. And on this specific day, there was only one child, whom I will call João here, but that is not his name; it is a name I created to preserve his identity. On that day, I proposed to introduce the reading of a comic strip from *Turma da Mônica*. I wanted to work on the issue of punctuation and vocal intonation during reading. However, when I presented the proposal to João, he refused and started to cry. Faced with this situation, I was in a state of shock because this had never happened to me before, neither in my experiences in the physical classroom nor in my experiences with remote classes. Therefore, I did not know how to handle the situation well. The teacher responsible for the class was with me. Her support was very important because she started talking to him, using very welcoming language, and he gradually calmed down (Student B).

The intervention of the supervising teacher, who also serves as an internship supervisor, when faced with a problematic situation, demonstrates an attitude grounded in the capacity to act urgently and decide amid uncertainty (Perrenoud, 2001). This capacity stems from a set of knowledge, skills, and attitudes that are (re)constructed throughout one's professional career through reflective practice. This set of competencies aligns with what Shulman (1986; 1987; 2014) asserts as the process of pedagogical reasoning. It concerns the ability to transform knowledge into instruction. "It encompasses six aspects common to the act of teaching: comprehension, transformation, instruction, evaluation, reflection, and new comprehension" (Nono; Mizukami, 2002, p. 73).

Student C corroborates the aforementioned, emphasizing the importance of pedagogical content knowledge as the foundation for the reasoning inherent to the act of teaching. In detailing her experiences during the remote internship, the student refers to the competence required to teach the same content through diverse tools, resources, and approaches.

> In this context, what we advocate for is present, which is pedagogical content knowledge, so that one can teach it in different ways. Only those who possess pedagogical content knowledge—that teacher, that professor—can diversify. It is not merely content knowledge. Knowing the epistemological foundations of mathematics does not mean I am qualified to teach mathematics. Therefore, it is content knowledge and pedagogical content knowledge that allows her, for example, to argue that the use of screen sharing can be a primordial element for this dialogue she is having with the children, teaching the same content in different ways. With the time constraint as well, I think she became very worried because the class passes very quickly, so she did not consider something that could be within this planned

> time that could bring new ways of teaching. So, this issue of technology sometimes limits, let us say, causes a little apprehension as well (Student C).

It is observed in the discourse of Student C that the importance of diversifying the teaching of content is emphasized. The undergraduate student even asserts that the mere mastery of the epistemological foundations of Mathematics—the example used—is insufficient. In her account, the intern exemplifies her assertion through the screen-sharing feature that the supervising teacher employed to establish learning in light of the proposed objectives. However, the challenges inherent to digital technologies must be considered. Student C states that, with the development of Emergency Remote Education (ERE), the supervising teacher realized that the class time was short, which hindered the use of certain pedagogical strategies involving digital technological resources.

Upon resuming the debate on TPACK, we realize that the premise of this theoretical framework is the "dynamic equilibrium among the three key elements (content, pedagogy, and technology) within teachers' knowledge base for teaching, resulting in the meaningful integration of these elements into teaching practice" (Ribeiro; Piedade, 2021, p. 4). Given the challenges of contemporary times, the proposal by Mishra and Koehler (2006) advocates that the exercise of teaching today requires such integration and, consequently, the inclusion of technology as part of the foundational knowledge of pedagogical practice. The pandemic, however, revealed that the reality of teaching practice in basic education, in many contexts, deviates from an ideal articulation of elementary knowledge. The internship experiences carried out by the second author of this text allow for clarification regarding the gaps in teacher training for the use of digital technological resources. This gap became unavoidable due to the specificities of Emergency Remote Education (ERE) and the necessity of technological mediation within the scope of teaching and learning.

The complexity of exchanges and the movement of praxis in the virtual internship reveals, in this context, an interesting and important process of correlation between knowledge and expertise. The supervising teachers, who are educators with more classroom experience and, tendentially, with expanded pedagogical content knowledge due to the objectified and reflected practice of their professional trajectories, contributed to the interns' formation by supporting their activities, which were still in an incipient process of insertion into the field. However, during the pandemic, the demand for digital technological knowledge, often absent in the base of teachers originating from a different generational reality, caused the intern-supervisor partnership to take on other nuances. In some situations, pedagogical content knowledge needed to be supported by the students who, coming from

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a generation immersed in digital culture, demonstrated greater dexterity and ease in the use of certain tools.

The relevance of this discussion is reaffirmed by the necessity, incidentally, of overcoming a generational notion that immediately associates the birth generation with digital literacy. A theoretical clarification is warranted here. According to Buckingham (2010), children's lives are directly affected by what the author terms digital media. This presents peculiar challenges to the contemporary school. However, caution must be exercised when considering a supposed *digital generation*.

> In my view, there are good reasons to be cautious about the rhetoric of the digital generation. Like various arguments concerning ICTs in education, they are characterized by a form of technological determinism—by the notion that technology brings about social or psychological changes, regardless of how and by whom it is used. The notion of the digital generation also essentializes young people and can lead us to ignore inequalities and differences among them. Most technology enthusiasts seem to believe that the so-called digital divide is a temporary phenomenon and that the technology-poor will eventually recover lost ground as equipment prices fall. This means accepting that those who adopted such technology earlier have remained at the same level and, generally, that the market is a neutral mechanism that simply gives individuals what they need (Buckingham, 2010, p. 43).

The fact that interns are, as a rule, younger and, consequently, were born within the context of digital culture does not mean they are prepared to use the latest technologies for pedagogical purposes. Nor is critical and conscious use guaranteed. Indeed, the notion of the digital generation, which unfolds into other concepts such as digital natives (Prensky, 2001), sometimes carries heuristically vacuous generalizations. They do, in effect, exhibit the cultural characteristics of individuals born into a society influenced by digital technologies.

However, this relationship with technological resources does not necessarily promote digital literacy. The latter can be defined, according to Buckingham (2010), based on four pillars: a) representation, understood as the recognition that all digital media represent the world, rather than merely reflecting it, which entails a series of implications such as diverse interpretations and selections of reality that incorporate implicit values and ideologies; b) language, given that the digitally literate individual uses language but also understands its functioning, with an awareness of codes, broader conventions, and specific genres; c) production, considering the need to question who is communicating, to whom, and why, within the context of the various commercial influences that underlie the production and dissemination of content; and d) audience, since the use of the internet requires self-awareness regarding one's positioning as an audience, that is, as a reader or user. In

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general terms:

> It is concluded that digital literacy is much more than a functional matter of learning how to use a computer and keyboard, or conducting web searches, even though it is clear that one must begin with the basics. Regarding the Internet, for example, children [and adults] need to know how to locate and select material—how to use browsers, hyperlinks, search engines, etc. But to stop there is to confine digital literacy to a form of instrumental or functional literacy: the skills that children [and adults] need concerning digital media are not solely for information retrieval. As with the printing press, they also need to be able to critically evaluate and use information if they are to transform it into knowledge. This means asking questions about the sources of this information, the interests of its producers, and how it represents the world, understanding how these technological developments are related to broader social, political, and economic forces (Buckingham, 2010, p. 49).

It is understood that digital literacy is achieved by those who transcend the mere instrumental use of digital technologies, although such competence is indeed relevant. Digital literacy involves the capacity to understand and be aware of technology in its relations with political, economic, and social issues. The debate becomes even more intricate when we take it to the realm of education. What we call technological knowledge, within the scope of pedagogical knowledge and as part of the TPACK model, is, we reiterate, beyond use as an instrument or for entertainment purposes, which commonly characterizes the lives of younger individuals.

Hence, the virtual internship experience proved to be extremely important, as it connected certain knowledge about technology, sometimes more instrumental and lacking critical reflection, to pedagogical and content knowledge that, in initial training, are still incipient and more restricted. TPACK is the result of an integration between different forms of knowledge, originating from undergraduate studies, but also and, above all, from continuing education and reflected professional experience.

Still, regarding the analysis of the panel discussion speeches, challenges related to continuing education are observed, as described by one of the supervising teachers who, at the time, worked in the management of the municipal education secretariat of her municipality. However, it is possible to perceive that the obstacles, although they could not circumvent the issue of training for/through digital technologies in Emergency Remote Education (ERE), also encompassed resistance and a lack of interest on the part of the supervising teachers in the schools.

> Then, there was a period, I believe it was almost the entire month of July, so we received a 30-hour certificate for this training, and each day included the topic of technologies as well. Subsequently, and continuing up to the present, many courses are also being offered to

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> teachers on Google Forms and various other subjects. However, for many, the initial training we had in July—for those who were not accustomed to it—we cannot fully learn in just one month. When I say one month, I mean intervals; it was only on certain days of the week, not throughout the entire month, totaling 30 hours of training. And in these other training sessions that continued to be offered to teachers, the participation was not very high either. I can speak for my own school: of those currently being offered, I know of only two teachers who are participating. Two. So, I think we need to consider the whole picture, a little bit of everyone. I believe there was a lack—it is very difficult for everyone who lacks the skills—but I also think sometimes a little more involvement is needed, a willingness to seek it out, because some have great difficulty, but many also sometimes do not have as much interest or involvement as they should (Classroom Teacher A).

The lead teacher A emphasizes that, within the context of the municipality where she works, despite some training opportunities offered, there was a lack of interest on the part of the teaching staff. Certainly, a 30-hour course, as reported, is insufficient to exhaust the possibilities and formative needs in an emergency context such as the ERE (Emergency Remote Education). However, the development of digital literacy and, consequently, of TPACK (Technological Pedagogical Content Knowledge), as the junction of the knowledge required for effective teaching with Information and Communication Technologies (ICTs), also depends on a reciprocal commitment. That is, on an interest and willingness on the part of the teachers working in the school settings. It is needless to say that what we call interest cannot be dissociated from broader material issues, such as the workload dedicated to planning and professional development, dignified working conditions, minimal technological resources—both at school and at home—and support from the secretariat of education, among others.

Ultimately, what has been presented provides grounds to assert that the dialectical relationships of the virtual internship were fruitful for both parties. They contributed to the development of both the interns and the experienced teachers. They fostered knowledge based on competencies that cannot be exhausted in formal higher education or even in intentional educational proposals. It was within the complex scenario of the virtual classroom, with all its potential as an immaterial space for symbolic exchanges, that praxis was consolidated. And the pedagogical reasoning put into practice influenced the development of pedagogical content knowledge, also contributing to the construction of TPACK—especially in the case of the cooperating teachers who, during the Emergency Remote Education (ERE), as mentioned, lacked a more technical and pedagogical mastery of the digital technologies necessary at that time.

These findings, notwithstanding their importance for the observed context, evidently represent a specific historical-social context. We consider that the results currently under discussion assist us in

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debating and reflecting upon teacher education processes, as well as the role of supervised practice, far beyond the scope of the Pedagogy degree. They also assist us in discussing school settings as spaces for education beyond the pandemic scenario. In any case, it must be considered that, as a qualitative study based on a specific reality, the data cannot be statistically generalized. The limitation of our scope is therefore acknowledged, as is the need for further investigations that can extend the analyses presented herein to other contexts, realities, and experiences.

FINAL CONSIDERATIONS

Numerous challenges were encountered during the Emergency Remote Teaching period. Among all the issues, the use of digital technologies was, in effect, central, given that many institutions and systems were unprepared to manage education mediated by contemporary technological resources. The necessity of adapting practices previously conceived and organized for in-person education, and subsequently transferring them to the remote model, generated a series of obstacles, including a lack of training and infrastructure.

This article discusses the obstacles presented by Emergency Remote Education (ERE) from the perspective of students who were, at the time, undertaking mandatory internships in the early years of elementary education. Given the social distancing and isolation measures recommended by health authorities, these interns had to monitor teaching-learning activities remotely, using digital tools such as Google Meet. They contended not only with the challenge of having completed part of their undergraduate studies remotely, but also with the fact that the internship—a crucial period for research and for establishing a link between theory and practice—was conducted remotely, along with all the resulting difficulties inherent in emergency experiences during the pandemic scenario.

In order to ratify the importance of the practicum in teacher education and demonstrate that the classroom, even in a virtual setting, constitutes a powerful space for professional development, we present, in these pages, accounts of the experiences during the Emergency Remote Education (ERE). The discussion took place during an activity called a panel debate, as part of the coursework for the discipline of practices in the early years of elementary education, featuring a movement of dialogues and sharing prompted by pertinent and instigating questions posed by the practicum professor, who mediated the panel. The goal was to problematize the practicum experiences and

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articulate issues concerning the learning of teaching, and the relationship between theory and teaching practice, especially within the context of ERE.

The results corroborated that the classroom is a pivotal space for education, such that human and pedagogical interactions, although mediated by digital technologies, did not have their potential diminished. Numerous obstacles were indeed present. However, the shared experiences and knowledge gained from the internship in Emergency Remote Education (ERE) unveiled a complex process of constructing the knowledge base for teaching through objective and reflective practices.

Our attention is drawn, in this analysis, to the disruptions concerning the commonly established hierarchies within the school environment. Faced with unfamiliarity regarding the use of certain resources, the supervising teachers occasionally found themselves in the role of learners, acquiring the skills to utilize digital technologies through the partnership established with the interns, who were younger and, customarily, more accustomed to such tools. This scenario, however, did not invalidate the pedagogical content knowledge that the experienced teachers brought to their teaching practices, thereby contributing to the professional development of the preservice teachers.

Ultimately, it is understood that the internship fulfilled its research role as a link between theory and practice, contributing to teacher education, both through the acquisition of knowledge via successful experiences and through the navigation of challenges and obstacles. These experiences generated lived realities that, through reflection, enabled the participants to (re)cognize themselves as educators who will operate in contexts characterized by the urgency and uncertainty typical of the teaching profession.

These results, although important, are limited to a specific historical-social context, as previously stated. From this perspective, they present the limitation inherent to a qualitative study, which, by not focusing on statistically relevant data, precludes generalizations. Based on this, further investigations into the same theme are suggested, which could explore not only internship experiences within Religious Education (ERE) in diverse contexts, but also experiences where the school environment constituted the quintessential space for praxis. Hybrid activities, the use of digital technological resources in pedagogical practices, and the construction of bridges between university and school are some examples of analytical categories that could be added to the present article to broaden the conclusions presented herein.

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