Reimagining Pedagogical Innovation in Vulnerable Contexts: Meanings, Obstacles, and Horizons for Action

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ABSTRACT. Innovative practices within the classroom have become a mandate for educational systems. However, critical local issues, needs, and opportunities persist, affecting a consensus on both theoretical and practical aspects of their development. The aim of this study was to critically discuss the conceptualization of pedagogical school innovation in vulnerable school contexts. From a qualitative research perspective and through a case study, five focus groups were conducted with 50 teachers from two Chilean schools with a high level of school vulnerability. Data were analyzed using the semantic content analysis technique. The primary results reveal: (1) heterogeneous approaches to understanding innovation in the classroom (such as adaptation, change, and novelty), (2) local barriers hindering its development (including lack of time, absence of definitional consensus, and student characteristics), and (3) opportunities to overcome these barriers, such as attitude change, resource availability, and teamwork. The pedagogical implications of perceiving vulnerable students as a barrier to innovation are critically discussed, along with the challenges for school teachers and teacher training.

Keywords: educational innovation; pedagogical research; poverty; Chile.

Reimaginar la innovación pedagógica en contextos vulnerables: sentidos, obstáculos y horizontes de acción

RESUMEN. La innovación escolar en el aula se ha vuelto un mandato para los sistemas escolares. Sin embargo, persisten problemáticas críticas locales, necesidades y oportunidades que afectan un consenso en torno a su desarrollo teórico y práctico. El objetivo de este estudio fue discutir críticamente la conceptualización de innovación escolar pedagógica en contextos escolares vulnerables. Desde una perspectiva cualitativa de investigación y mediante un estudio de caso se llevaron a cabo cinco grupos de discusión con 50 profesores de dos escuelas chilenas con alto índice de vulnerabilidad escolar. Los datos analizados con la técnica de análisis de contenido semántico. Los principales resultados muestran: (1) aproximaciones heterogéneas para entender la innovación en el aula (como adaptación, como cambio y como novedad), (2) barreras locales para posibilitar su desarrollo (como la falta de tiempo, la falta de consenso definitorio y características del alumnado); y (3) oportunidades para enfrentar las barreras como el cambio de actitudes, recursos y trabajo en equipo. Se discuten críticamente las implicancias pedagógicas de entender al alumnado vulnerable como barrera para la innovación, así como los desafíos para profesores de escuela y para la formación docente.

Palabras clave: innovación educativa; investigación pedagógica; pobreza; Chile.

Reimaginar a inovação pedagógica em contextos vulneráveis: sentidos, obstáculos e horizontes de ação

RESUMO. A inovação escolar na sala de aula tornou-se um mandato para os sistemas educacionais. No entanto, persistem questões críticas locais, necessidades e oportunidades que impactam um consenso em relação ao seu desenvolvimento teórico e prático. O objetivo deste estudo foi discutir criticamente a conceptualização da inovação escolar pedagógica em contextos escolares vulneráveis. De uma perspectiva de pesquisa qualitativa e através de um estudo de caso, foram realizados cinco grupos de discussão com 50 professores de duas escolas chilenas com alto índice de vulnerabilidade escolar. Os dados foram analisados com a técnica de análise de conteúdo semântico. Os principais resultados mostram: (1) abordagens heterogêneas para entender a inovação na sala de aula (como adaptação, mudança e novidade), (2) barreiras locais para possibilitar seu desenvolvimento (como a falta de tempo, a ausência de consenso definidor e

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características dos alunos); e (3) oportunidades para enfrentar as barreiras, como a mudança de atitudes, recursos e trabalho em equipe. São discutidas criticamente as implicações pedagógicas de entender os alunos vulneráveis como uma barreira para a inovação, bem como os desafios para os professores escolares e para a formação docente.

Palavras-chave: inovação educacional; pesquisa pedagógica; pobreza; Chile.

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Introduction

Following the gradual return to classrooms after the pandemic, the concern for innovation has permeated the educational field in a systemic manner, becoming a central tenet in the agendas of international and regional organizations. According to the Organisation for Economic Co-operation and Development (OECD, 2021), education systems are urged to foster a culture of collaborative innovation, while the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2021) emphasizes that any new social contract must be grounded in narratives of innovation and cooperation. These mandates have been taken up by the Chilean Ministry of Education (2022) in its Comprehensive Educational Reactivation Policy, which seeks to promote the recognition and exchange of innovative practices in response to the ongoing challenges of holistic learning.

However, the systematization of innovative experiences proves to be a highly complex task. First, the very conceptualization of innovation presents a challenge for both education systems and school institutions (Lomba et al., 2022). Second, the limited investment in the education sector negatively affects the promotion of cutting-edge educational practices (Moreira-Arenas, 2021). Third, the absence of formal and informal platforms that facilitate innovation within schools hinders the implementation of sustainable innovative processes (Camacho, 2020). Fourth, innovation has often been reduced to a purely technological activity (Santos Guerra, 2018). Fifth, educational institutions frequently face excessive administrative pressures and burdens, which restrict the development of innovative initiatives (Valdés, 2023). All of these issues were exacerbated during the pandemic. Despite early expectations that the crisis could become an opportunity for innovation, evidence suggests that the opposite occurred (UNESCO, 2021; OECD, 2021).

In light of these considerations, this study aims to understand pedagogical innovation as a locally grounded practice in contexts of high educational vulnerability. According to the evidence, schools operating in complex socio-educational environments face greater challenges in implementing transformative practices (Peirano et al., 2015; Fardella et al., 2023), while the concept of innovation itself remains difficult to define and enact (García Gómez & Escudero, 2021). The objective of this study is to critically examine the conceptualization of pedagogical innovation within vulnerable school contexts. To this end, five discussion groups were conducted with 50 teachers from two schools with high levels of educational vulnerability in the Valparaíso Region of Chile. This article seeks to explore innovation as a pedagogical and situated practice. The hope is that the contributions of this study not only reflect a specific local situation but may also prove valuable for educational settings aiming to promote innovation from a pedagogical perspective.

Innovation as a pedagogical practice

Defining innovation is a complex task to systematize, as its interpretation varies depending on context and perspective. In organizational terms, it has been conceptualized as the act of overcoming paradigms that hinder the improvement of organizational processes (Hernández, 2016). This notion implies dynamism, context-sensitive action, and the identification of problems that require targeted responses; furthermore, it must be framed within organizational development and the transformation of institutional needs. From an educational perspective, innovation is understood as any planned action aimed at generating change within school institutions that leads to improvements in formative practices. It requires both professional and institutional development, involving the participation and understanding of the entire educational community (Macanchí et al., 2020). At the pedagogical level, innovation refers to changes in relational models, the infrastructures that support teaching and learning activities, and adjustments to curricular content, methods, media, formats, and assessment techniques (Pascual, 2019). This study focuses on this pedagogical dimension of innovation.

Santos Guerra (2018) emphasizes that pedagogical innovation encompasses practices and processes that bring about changes in classroom dynamics. According to Deppeler and Aikens (2020), such innovation must

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be conceived as a collective responsibility rather than solely an individual initiative. Key aspects include lesson design rooted in professional learning, participatory practices, flexibility, and sustainability. This perspective aligns with that of UNESCO (2021), which defines innovation as a deliberate and planned effort to address problems and overcome traditional teaching models. In this regard, Brevis-Yéber et al. (2022) highlight the importance of reflective teaching practices aligned with the local realities of schools and their educational projects. This view supports the idea that innovation entails transformations in interpersonal relationships and in the teaching and learning process (Rimari, 2005; Rios, 2004).

Although recent years have seen educational innovation focused primarily on digital technologies and alternative teaching methods (Tirado-Olivares et al., 2021), Martínez and Rogero (2021) argue that the true value of innovation lies in its capacity to adapt to the school context and the complexity of everyday school life (Pattison et al., 2016). From this perspective, innovation should be understood as a practice that strengthens inclusive and diverse environments (Barreiro Collazo, 2022), fosters healthy school coexistence (Fierro-Evans & Fortoul-Ollivier, 2022), promotes social justice (Arceo & Tirado, 2022), and mobilizes learning in contexts of educational vulnerability (Gómez Hernández et al., 2022).

This study approaches innovation from a perspective centered on the teaching process, understood as a pedagogical transformation in the construction and experience of the classroom space, always situated within a specific time and place of instruction. It involves challenging and transforming historically established practices in order to engage in reflective and contemplative pedagogy (Skliar, 2017). In this process, the teacher plays a crucial role in disrupting and reimagining conceptions of teaching and classroom practice (Pendergast & O'Brien, 2023).

In this context, innovation is conceived as a pedagogical practice in constant evolution and adaptation to the specific educational setting. However, innovation as practice must be subject to discussion, reflection, and collective consensus within school communities (Brevis-Yéber et al., 2022; Deppeler & Aikens, 2020). For this reason, the objective of this study is to critically examine the conceptualization of pedagogical school innovation in vulnerable educational contexts.

Method

Based on the objective of this study, a qualitative research methodology was adopted, employing a case study approach as proposed by Flick (2015). For case selection, an intentional sampling technique was used (Flick, 2015), which allows for the identification of specific cases suitable for building a corpus of examples and thereby conducting an informed analysis of the study object. The two participating schools are tuition-free, do not implement arbitrary student selection processes, and present high levels of educational vulnerability. Both schools have received academic excellence recognition from the Chilean Ministry of Education, which considers factors such as effectiveness, improvement, initiative, enhancement of working conditions, equal opportunities, and the integration and participation of all members of the educational community. Through a university–school partnership, both schools maintain an agreement with the School of Education at the sponsoring university, aimed at establishing a Learning Laboratory (LAP) and developing training in transformative pedagogical practices.

Fieldwork

To produce data, the discussion group technique was employed. According to Canales (2006), these are micro-conversational systems that provide insights into broader structures of thought and the rationalizations through which a group represents itself. In this case, the participants were school leadership teams and teachers who did not know each other but shared equal speaking rights, as they held similar roles and operated within a common reality. These were primarily conversations focused on a shared topic of interest.

Specifically, five discussion groups were conducted with 10 participants from both schools. Each group was moderated by two university faculty members—one led the discussion by managing questions and ensuring equal participation, while the other took field notes. The three guiding questions were: (1) What does it mean to innovate in your school? Please conceptualize school innovation based on your experience; (2) What barriers exist in your school to promote innovation? Identify local challenges that affect classroom innovation; and (3) What opportunities are available in your school to address the aforementioned barriers? Point out potential opportunities for innovation in light of the problems discussed.

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These discussion groups took place on university premises and lasted approximately 80 minutes each. Prior to the sessions, formal authorization was obtained from school principals and informed consent was collected from all adult participants. All documents were reviewed and approved by the bioethics committee of the sponsoring university.

Data analysis

To explore situations and practices related to pedagogical innovation, content analysis was prioritized as the analytical technique, following Flick's (2015) guidelines. This technique allows for a deeper understanding of the data and the social contexts in which it was produced (Krippendorff, 1990). The process unfolded in three main stages. First, during the material organization phase, once the audio recordings of the discussion groups were transcribed, the texts were read and re-read to develop a comprehensive understanding of the material and to enhance document comprehension. Second, in the open coding phase, using the software Atlas.ti, the texts were segmented into small units of meaning related to the consensus points around the three guiding questions. Following Atkinson and Coffey's (2003) suggestions, common patterns were identified to organize codes and excerpts, thereby refining the hermeneutic base. Finally, during the categorization phase, a systematic evaluation of the data allowed for the grouping of related content into categories and subcategories that reflected patterns of agreement across the discussion groups. For this study, priority was given to the nine subcategories with the highest density of excerpts and citations.

Results

Meanings of innovation

This first section addresses the first guiding question: "What does it mean to innovate in schools? Please conceptualize school innovation based on your experience." The following categories emerged through content analysis.

Innovation as the Adaptation of Teaching

This first category encompasses excerpts that frame innovation as a process of adapting teaching methods to meet the diverse needs of all students. Participants discussed the importance of continuously adjusting pedagogical practices to align with rapid societal changes and evolving educational contexts. They also highlighted the significance of student participation in learning processes and the reuse of educational materials to foster multiple perspectives and skills. Innovation was described as an ongoing adaptation to the local context and to the needs of new generations of learners.

I believe it is necessary to continuously adjust and adapt education, and also adapt it to the context in which we live every day. Societies, especially today, are changing rapidly, so education, methods, and practices must change too. We have a duty to stay up to date. I think that's where innovation becomes crucial (Discussion Group 1).

It's participatory learning. When students are part of the process, they acquire knowledge more effectively. Also, considering the quality of materials—how they can be reused—this helps students see things from different perspectives, from other subjects or in different ways. That allows them to connect and develop different skills (Discussion Group 3).

I see innovation as adaptation to the context I'm in. In my classes, for example, I must adapt to different generations. There's always a starting point, but that must be adapted (Discussion Group 5).

These excerpts demonstrate a shared commitment to constant adaptation as a form of innovation, with an emphasis on student engagement and responsiveness to changing generational and social contexts. Innovation is viewed not as a fixed product, but as a situated educational process that requires attentiveness to shifting societal dynamics.

Along similar lines, participants underscored the need to update didactic and methodological knowledge to strengthen teaching strategies tailored to their particular student populations. This perspective positions innovation as central to inclusive pedagogical processes that acknowledge and respond to diverse school trajectories.

Innovation as a Process of Change

The second category includes excerpts that conceptualize innovation as a process of change. Innovation is not necessarily seen as something entirely new but may also involve revisiting older, effective practices.

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Participants described innovation as a balance between the tried-and-true and the novel, emphasizing its transformative potential over the medium and long term.

I see it as a mix. Innovation invites change, but as some colleagues said, it could mean incorporating new technologies or practices, creating surprise. For instance, presenting a process based more on inquiry, where the student explores what's going to happen—without everything being laid out by the teacher. But I also think it could mean bringing back something that worked in the past. Not everything has to be cutting-edge; something from the past, if it was effective, can be reintroduced. Like fashion—something from 40 years ago is back, just in different colors (Discussion Group 3).

To me, innovation is mostly about change. It doesn't have to be new. You can take old practices that worked and use them again (Discussion Group 4).

I think innovation is part of the professional role. I might be within the system, but I, as a professional, can introduce change and innovate in my own practice. I see innovation as a process of change and constant relearning (Discussion Group 2).

I understand innovation as change, but also as introducing something new to generate that change. For example, in math, using the Learning Lab to teach mathematical concepts through new experiences—that's innovation (Discussion Group 5).

These reflections reveal a nuanced and context-sensitive understanding of innovation. Innovation is not a static concept but encompasses a range of practices, from integrating new technologies to reapplying proven methods. This view challenges the assumption that innovation must always entail something unprecedented, and instead values past experiences as resources for addressing present challenges. The idea of continuous adaptation emerges as a transversal need in contexts characterized by ongoing transformation and growth.

The Learning Lab (LAP) is recognized as a central space for rethinking classroom change—where past resources and new pathways intersect in a process of ongoing reflection.

Innovation as Breaking Routine

This third category gathers statements that define innovation as breaking away from routine and established norms—whether in teaching methods or in interactions with students. Participants emphasized the importance of new perspectives and experiences in the classroom. Innovation is described as a disruption of traditional knowledge and a chance to challenge the routine, shift roles, and design meaningful, creative activities for students.

Doing new things that are out of the ordinary. I'm not sure if it's already been mentioned, but clearly, innovating means breaking from the routine through new processes—working on the same concept from a different perspective, always taking it to practice so it's not just an empty concept (Discussion Group 3).

It's about taking students into new experiences, as Valentina said—something that breaks the mold, that's not just another linear class (Discussion Group 4).

I see it as breaking with what we know. We have to unlearn what we experienced in school and university—we hold on to those concepts, but innovation makes us change. And many activities can be done with something as simple as a piece of paper. People think you need a lot of resources to innovate, but really, we must first change ourselves in order to give students this beautiful sense of innovation (Discussion Group 5).

Breaking, challenging standards, disrupting routine, changing roles (Discussion Group 1).

These excerpts suggest that innovation entails confronting everyday educational standards through creativity, disruption of paradigms, and the introduction of new perspectives and experiences that reimagine classroom practices. Innovation is seen as a means of making teaching more dynamic and relevant.

This vision of disruption—whether through resources, methods, or roles—emerges as a collective notion of transforming classroom practices. In this view, student participation in role exchange becomes a key component, extending the "sense of innovation" to all members of the educational community.

Barriers to the Concept of Innovation

This second dimension addresses the second guiding question: "What barriers exist in your school to innovate? Identify local challenges that affect innovation in the classroom." The categories presented below emerged through content analysis.

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Student-Related Barriers

This fourth category includes excerpts that highlight the challenges and complex realities teachers face when trying to implement innovation in the classroom. Participants identify a range of constraining factors, such as students with special educational needs, emotional and family burdens, frequent absenteeism, behavioral issues—including physical aggression—and deficits in academic skills and discipline. Social vulnerability, including issues like lack of breakfast, precarious family situations, or limited support at home, is also cited as a major obstacle to innovation.

Many children have special educational needs (Discussion Group 3).

I see it as coming from the student side, because of the social context they're in... we work with students who carry a lot—emotional and family burdens—and all of that comes into the classroom. They bring it with them, and we have to teach in that context (Discussion Group 3).

I was going to mention absenteeism—it's not just one or two students, sometimes it's ten or half the class. Absences can last a week, sometimes three weeks, so innovating becomes very difficult. If I try to innovate while already halfway through the unit, the best I can do is review. But I can't go back for students who've missed two weeks—it's difficult (Discussion Group 4).

In our school we have three or four classes, and each class is different. Some groups are more restless, but what really worries us is that we have students on the autism spectrum who become dysregulated and hit others—even teachers. That's concerning because the other kids can't relax, and we always have to be on alert. With smaller groups, it's easier to reach them and personalize the learning (Discussion Group 5).

There are also issues with students' characteristics—lower academic skills, lack of interest, discipline problems, reading deficits, lack of motivation, disrespect. These things are all student-related. And that raises the big question: what can we do to help them develop study habits they don't have, interest they don't show, self-discipline they lack, and the motivation that's missing? There are so many elements that come from the students themselves (Discussion Group 5).

They talked about vulnerability—over 90%—and that brings a lot of issues. Someone mentioned whether students even had breakfast, whether they live alone, whether they stay home because there's no one to bring them to school. There are so many things that affect our ability to innovate (Discussion Group 2).

These excerpts illustrate that educational innovation is often hindered by student-related factors, which underscores the need for flexible approaches tailored to the diverse needs and challenges that students face.

Institutional aspects such as attendance, school climate, and low academic skills intersect with student subjectivities like neurodiversity, social realities, and levels of vulnerability—factors that demand an approach aligned with the evolving individual and collective needs of the classroom.

Time Constraints

This fifth category consistently identifies time as a key barrier to innovation. Teachers express concern over the lack of time for planning and implementing innovative classroom activities. This pressure is intensified by demands to recover learning and address student behavior before academic content can be tackled. The lack of time for creative thinking and reflection is seen as a limitation to pedagogical innovation.

I think it's pretty clear what I'm trying to say—and I'll add the time factor, which I think we all share. It's the hardest part: having enough time to prepare all the activities we would like to do in the classroom (Discussion Group 1).

Even in the LAP sessions, if we want to hang something up and we're moving from first to second period, we only have 15 minutes for break. Between bathroom and snacks, there's not enough time to set things up the way we'd like to—let alone the time needed for planning and creating materials (Discussion Group 3).

Time is also tied to the phase we're in. We're in the learning recovery phase, so we're already racing against the clock. We see it even in the kids' attitudes—before we can even start with content, we have to address their attitudes toward learning, the classroom, and following instructions (Discussion Group 3).

What stands out to me is that these aren't really 'local' problems—they're just things I need. Time, for instance—what I really lack are spaces for thinking, time to create. Teachers just don't have enough time to innovate (Discussion Group 5).

These reflections reveal a common challenge: the tension between the desire to innovate and the limited time available to do so. Teachers feel pressured by multiple demands, which in turn restricts their ability to engage with new approaches. Addressing time constraints is particularly difficult in contexts where collaboration is limited and structural management strategies are lacking.

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From another angle, the concept of limited time emerges as a workplace climate issue—mechanized by the ongoing tension between meeting performance demands and the inability to manage or reallocate available resources, despite a clear awareness of the need to do so.

Problems in the Conception of Innovation

This sixth category includes excerpts suggesting that innovation does not always imply radical transformation. The lack of consensus around what constitutes innovation emerges as a barrier to systematizing creative practices. Participants noted that teachers often innovate without realizing it—adapting and evolving daily in response to changing student needs and institutional demands. Innovation is seen not as a complete overhaul but as a gradual, adaptive process.

I think teachers are constantly innovating, and we often don't even realize it. If I look at how I teach now, it's nothing like the way I was taught. So we have innovated. Maybe we just think innovation means showing up dressed like an astronaut to teach (Discussion Group 3).

Another issue is that we think innovating means tearing everything down and starting over from scratch (Discussion Group 5).

But you're right—any change we think of as innovation needs to be intentional. That means it has to lead us somewhere. Like, today I want to change this, even if it's small. Maybe that's where the value lies—in being deliberate, in being able to evaluate it afterward (Discussion Group 2).

These comments raise important questions about how innovation is understood and practiced in education. They emphasize that innovation can be a continuous process and also a conscious, planned effort for educational change. However, the absence of shared definitions often leads to the undervaluing of everyday micro-innovations.

Furthermore, innovation is associated with broader educational paradigm shifts, shaped by how classroom dynamics are generated and how available resources and planned interactions are mobilized.

Opportunities for Innovation

This third dimension addresses the third guiding question: "What opportunities exist in your school to address the previously mentioned barriers? What innovation opportunities can be observed in relation to the problems identified?" The following categories emerged from the content analysis.

Opportunity: Changing Attitudes

This seventh category highlights the importance of teacher dispositions toward innovation and emphasizes the attitudinal domain as key to enabling creative processes. A paradigm shift and teachers' willingness to adopt new teaching approaches are considered essential for fostering meaningful learning. Motivation is identified as a fundamental driver of student engagement and inquiry, and it is noted that such motivation can arise from both teachers and students. Participants also underline the importance of maintaining an open mindset, particularly regarding intergenerational collaboration between teachers and students, which can generate innovation in educational processes.

If we show that capacity to adapt to new stimuli, our whole attitude should shift, and what we can achieve becomes much greater than what we might initially expect. I think that paradigm shift is important—starting with teachers and then extending to students, so the entire educational community begins to change (Discussion Group 3).

I don't know, I think motivation is incredibly important. If I can spark motivation, I create engagement, opportunity, learning, inquiry... I believe everything starts with motivation. And there are students who will have to find that motivation on their own (Discussion Group 5).

What's beautiful is that, I think, all of us here have been open to change and adaptation. There are things we haven't learned yet, and younger teachers teach us. And we're able to say, 'You know what? I don't know this.' And they teach us—or sometimes it's the other way around. We have that open-mindedness that allows innovation to happen... (Discussion Group 5).

In the end, you get so overwhelmed that you end up doing the same as always. Then you get re-energized during LAP sessions or staff meetings—you say, 'Okay, let's go!' But then something gets in the way again. So it's also about a constant internal motivation (Discussion Group 2).

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These excerpts emphasize the importance of open-mindedness, continuous adaptation, and motivation—both among teachers and students—as conditions for effective and evolving education. Here lies an opportunity that requires collaboration and exchange across different roles, educational levels, and professional generations.

Additionally, motivation is grounded in reflective and dialogical spaces, from which the "decision" to innovate emerges. Its success or failure is shaped by the contingencies of educational practice.

Opportunity: Rethinking Resources

This eighth category includes excerpts that highlight the importance of rethinking educational resources as a means to incorporate new classroom practices focused on innovation and creativity. Participants recognize that access to innovative materials can stimulate student engagement and support the reimagining of the classroom environment. They also stress the value of developing concrete, durable teaching materials that are reusable and that encourage teachers' creativity and commitment to preparing pedagogical resources.

Having different, innovative materials—everything in the LAP is innovative to me—it's wonderful. It opens up possibilities for everyone, sparks motivation from every angle you can imagine (Discussion Group 3).

It's an opportunity to create high-quality materials—not just printed handouts. If students see something more tangible, sturdier, like cardboard, something that won't fall apart, it motivates us too. And it's easier to reuse later. We're building up a stock of materials for future use (Discussion Group 3).

The LAP also provides tools, like visual stimuli—and it's not digital technology, but more like handmade, material-based technology. And this craftwork isn't just a product—it becomes a pedagogical artifact that's more attractive, more engaging, better made. It captures attention, and that attention becomes a stimulus for the student—showing them that school isn't just about worksheets (Discussion Group 2).

These reflections show that innovation can emerge through the creative and thoughtful use of materials and resources to enhance the teaching and learning process. Participants place high value on the creation of pedagogical 'technologies' that support motivation and commitment among both teachers and students within their school contexts.

Opportunity: Collaborative Work

This ninth category emphasizes the importance of collaboration and communication among teachers as key elements for fostering educational innovation. Participants mention the possibility of working through project-based approaches and using thematic connections across subjects, suggesting that collaboration among teachers can facilitate the implementation of innovative pedagogical strategies across grade levels and disciplines. Additionally, they stress the importance of overcoming common barriers—such as lack of resources—through teamwork and effective communication.

That's project-based work. And yes, projects can be done—maybe in lower or upper grades—and they can be connected by a common theme, perhaps across one subject or area, with each teacher contributing at their level. So yes, that's an opportunity (Discussion Group 3).

We need to get this idea out of our heads—I used to think this a lot—'I don't have money,' or 'I don't have materials.' In other schools, it was 'I don't have space' or 'I don't have time.' But sometimes it's about collaborating with other teachers in the same area. Cool things can be done through good communication (Discussion Group 4).

As teachers, we need to talk to each other to innovate. We need spaces where we can say, 'This is what's happening,' and think together—not from individual effort alone... (Discussion Group 2).

And when we do get those spaces, we also need to use them well. Sometimes we waste them talking about Avon catalogs instead of focusing on pedagogical reflection. I also think trust and dialogue are essential—not just among peers, but across the whole staff (Discussion Group 2).

These quotes highlight the view that trust and dialogue among peers are fundamental for promoting pedagogical reflection and educational innovation. Innovation is closely linked to spaces of collaboration and conversation—sites where classroom needs and institutional possibilities converge.

In this light, innovation is not perceived as an individual endeavor, but as a collaborative process. Peer collaboration, overcoming shared challenges, and building a culture of trust are key elements for driving pedagogical innovation and professional development within schools.

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Final considerations

From the voices of participants, classroom innovation is approached from multiple perspectives, including its understanding as the ongoing adaptation of teaching methodologies to meet students' evolving needs; a process of change that incorporates both proven and novel elements; a break from routine through new classroom experiences; and the challenge of redefining what innovation truly means. However, this innovation faces significant barriers, such as student-related factors (emotional and family burdens, frequent absenteeism, behavioral diversity, and deficiencies in skills and discipline), with time constraints also emerging as a major obstacle. To capitalize on innovation opportunities, participants emphasized the importance of teacher collaboration, effective communication, and professional dispositions, along with careful attention to the specific needs of students.

There is no unified conception of innovation among teachers, reflecting a lack of collective consensus on its meaning. Some view it as a process of constant adaptation to internal and external demands, while others interpret it as breaking routine and introducing novel elements into the classroom. This lack of shared understanding leads to individual and fragmented approaches to innovation. Adaptation is tied to the need to respond to changing circumstances, including students' diverse learning and cultural backgrounds, whereas breaking routine reflects the desire to generate surprising and challenging learning experiences. Innovation is thus framed as a creative search for alternatives—promoting an adventurous spirit in pedagogy.

However, the barriers to innovation remain evident and are closely linked to students' characteristics and needs. This is a pedagogically relevant and problematic finding. The classroom is a relational space where the teacher's beliefs and theories are enacted through pedagogical action. When student diversity is framed as a barrier to innovation, it implies that innovation is beyond the teacher's control. Yet, the teacher must necessarily re-situate their role, intertwining their act of teaching with the students' act of learning. This challenge requires recognizing one's own actions and developing the flexibility to engage with diverse modes of teaching. Representing students as obstacles also reveals that teachers' efforts to find appropriate methods may have been frustrating or ineffective—failing to yield the desired outcomes. The real challenge is how to embrace pluralism and difference not as resistance to overcome but as a reality to accept and work with. Perhaps what has been overlooked is the fact that when we teach, we teach unknowns in unknown contexts, where "[...] what is at stake in the act of educating—what we offer, what we give, what we try to share—should be addressed to anyone, to those others who never lose their character as unknown, and whom we wish to receive both in their generality and in their singularity" (Skliar, 2017, p. 25).

Lack of time and pressure to recover lost learning were also highlighted as significant obstacles by participants. Furthermore, the absence of adequate materials and resources was perceived as another limitation, alongside disparities in student motivation and abilities. A lack of shared vision and collective reflection on pedagogy and innovation further compounds these barriers.

Despite these challenges, several opportunities for innovation were identified. Collaboration and communication among teachers emerged as key factors. Project-based work and the use of overarching themes in teaching were seen as strategies that could facilitate the implementation of innovative practices. Teachers' disposition and motivation for change were deemed essential. The creation of durable and concrete pedagogical resources was also recognized as a means to boost creativity and teacher engagement. Participants emphasized the importance of maintaining an open mind—particularly regarding intergenerational collaboration between teachers and students—as a catalyst for educational innovation.

One of the key findings is the absence of a shared concept of innovation within the school community, which appears to stem from a lack of institutionalized conversations and collective reflection on pedagogical practice. This study underscores the importance of such conversations, which enable open and deep dialogue among individuals with diverse experiences. These interactions shape participants' perceptions and ethical responsibilities, leading to shifts in perspective. Dialogue is framed as a meeting of vulnerabilities, rather than an act of imposition—highlighting its transformative power (Brailovsky, 2019; Skliar, 2017).

This study on teacher education emphasizes the need to build a comprehensive understanding of innovation, community, and diversity in education. It asserts that pedagogical practices—including planning and assessment—must be approached holistically, fostering creativity and innovation as inherent aspects of educational work. This entails creating communities that support collaboration and the co-resolution of everyday challenges in teaching (Fardella et al., 2023; Peirano et al., 2015).

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A crucial aspect is the centrality of diversity—embracing differences among students. Barriers to innovation linked to students' specific characteristics must be overcome through recognition of both the teacher's own professional role and the diversity of others. This is essential for any meaningful pedagogical transformation, as it calls on educators to explore alternative, non-traditional approaches to teaching.

Findings also point to the need for building local consensus around innovation in the classroom, given that its meaning and relevance vary by context and perspective, and depend on the organizational processes specific to each school. This requires planned and collective actions to foster shared reflection on classroom practice and the classroom itself. Therefore, pedagogical innovation must be understood as a collective responsibility, involving elements such as lesson design, professional learning, participatory practices, flexibility, and sustainability (Pendergast & O'Brien, 2023; Brevis-Yéber et al., 2022; Deppeler & Aikens, 2020).

Teacher education faces the challenge of developing formative experiences based on core principles that guide all classroom actions. These principles must include the search for meaning, reflective dialogue, emotional engagement, ethics, holistic knowledge, curiosity, and creativity. Training must also incorporate historical, cultural, and contextual perspectives, while fostering educators' autonomy and emancipation. Education should not be reduced to the acquisition of pedagogical techniques, but rather support the development of teachers as reflective and creative agents, capable of responding to the changing needs of teaching (Garrido, 2018; Bárcena, 2005; Deppeler & Aikens, 2020).

Reaching a consensus on the meaning of innovation in education is a major challenge. Before innovation can be implemented, there must be a community of teachers committed to reflecting on their pedagogical practices, questioning their own institutional educational projects (PEIs), core pedagogical principles, and contexts. Innovation must be integrated into teachers' everyday practice, not treated as an isolated task. This is tied to the idea that learning in modernity has lost its flavor and meaning, becoming a lifeless transmission of knowledge. Teachers must recover the understanding that teaching is an art—a balance of journey and pause—that involves exploration and reflection. Building communities of discourse is essential for supporting innovative practice, providing a space to discuss core beliefs about pedagogy, student diversity, and learning. Such communities can help clarify innovation processes and foster meaningful dialogue on central issues in education (Lévinas apud Skliar, 2017; Biddle et al., 2000).

This study has certain limitations. Notably, it does not include student voices nor direct classroom observations, which may restrict a more comprehensive understanding of innovation processes in educational settings. However, future research should aim to deepen the exploration of other aspects related to innovation—such as the role of art and creativity—which could significantly enrich the analysis. There is also a need to explore innovation using mixed-method approaches and across different school levels, which would allow for a more holistic and contextually grounded understanding of this phenomenon.

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