

# Virtual Education. Experiences and Perceptions from a confined learning environment

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## Abstract

The confined teaching and learning practices that were experienced during the COVID-19 pandemic period triggered different challenges and difficulties for students and teachers. Therefore, the purpose of this article is to describe the experiences and perceptions of a group of undergraduate students from the Pedagogical and Technological University of Colombia, where the experiences they had to face are recognized, in order to continue their training process in a confined environment and added to the uncertainty generated by the pandemic. With this purpose, the interpretive research paradigm with a mixed approach was adopted, for which a research instrument with open and closed questions was applied, through which the challenges, difficulties and conflicts faced during confinement were revealed, as the pandemic motivated a synergy between technology, teachers and students that disrupted the teaching and learning processes, opening the need to rewind the traditional educational practices. This study concludes that virtual education, although it presented challenges and difficulties, also offered opportunities for adaptation and growth in the academic sphere. However, it is necessary to continue working on improving technological infrastructure and the training of teachers and students so that virtual education is an effective and efficient tool in the teaching and learning process. Furthermore, it is important to note that virtual education should not be viewed as a secondary option, but as an alternative, that complements traditional educational practice

**Keywords:** Virtual education, teaching and learning, confinement, pandemic, ICT.

## 1. Introduction

Learning environments have been characterized as scenarios where different physical and sensory elements are integrated to facilitate teaching and

learning processes, leading to a close relationship between teachers, students, and content as a strategy for knowledge construction. Usually, these scenarios are previously adapted in schools,

where the teacher makes use of resources and teaching strategies to motivate and awaken the desire to learn in students, facilitating the understanding of the subjects to be studied. However, during the health emergency caused by COVID-19, students' learning environments were altered, as they moved from the conventional classroom to the home, where the academic environment dissolved into a family environment, bringing different challenges and experiences to students and teachers.

Undoubtedly, during the pandemic period, there were several situations of uncertainty in different sectors, and the education field was no exception. In this sense, within the framework of the SGI 2610 research project at UPTC "The formation of educators from public policies in information and communication technologies in the Colombian educational context," which was being developed at that time, an attempt was made to analyze the experiences and perceptions of a group of students who unexpectedly faced a virtual education process, without having the experience or the required infrastructure to respond to this sudden form of receiving their classes.

The document presents data associated with connectivity, recording of virtual classes, the most privileged technological means of access for the development of classes, the intensity of synchronous and asynchronous activities, the role of instant messaging tools during the teaching and learning process, teacher training, and students' preferences between the virtual and face-to-face modalities. Furthermore, the reflection of the work carried out exposes the challenges and difficulties that arose during this training process within the framework of the pandemic, as well as the insights that students draw from the experienced experience.

The process of transforming the educational and training scenario has been improving and being observed over time, as a result of the implementation of better educational environments that impact multiple educational actions, leading to a review of experiences that are more positive, as education and learning takes place for new knowledge with the support of information and communication technologies (ICT). Moreover, there are taboos against the

replacement of the machine with teachers, which are no longer taboos, becoming something normal. Therefore, it is important to learn to socially coexist with the diversity of tools that mediate knowledge, where alternative learnings, assertive communication, and better educational environments are prioritized, where technology is incorporated into the school and home context. This represents a substantial change for the teacher in the triad of family, society, and school, along with the development of life skills that underlie this new reality, in light of the pandemic, where reflection, argumentation, and the search for alternative virtual spaces is essential, amidst changing educational dynamics, as López (2020) noted in the way of developing teaching-learning processes.

These school environments, where young people took on the challenges and obstacles of confinement, have contributed to a change in perception among those who participate in the educational process, such as administrators, teachers, students, policymakers and society in general. They have been mobilized by both local, national and international educational policies, making educators and students the main actors in education during the pandemic. This involved transformations in their perceptions of education and their work, adjusting their schedules, curriculums, and strategies to their own reality, and generating technological alternatives through virtuality. This led to acceptance among all participants as equals, through accompanying guidance that focused on learning to coexist together in alternative, conducive environments for learning, according to Mena (2020) as a life opportunity during the pandemic and a search for coexistence among the participants in the educational process.

The coexistence of difficulties in an educational environment during the Covid-19 stage, among teams, individuals, and mediations led to an understanding of the public space in which they interact freely according to their needs, forming a community in which teachers, students, parents, and administrators participate with the goal of creating strategies aimed at everyone, as stated by Martínez (2005). The challenge involved the participation of all the people who influenced the

educational environment of the student population to achieve the expected results according to the teachers' planning, and it is more understandable to achieve diversity in the strategies used in the learning process by teachers.

It is very important to focus on creating spaces and scenarios supported by strategies where the educational community can live the sense of responsibility, which will be the fundamental element of training for the exercise of citizenship (Herrera, 2006). Additionally, work was sought in alternative virtual spaces as part of the alternative environments in education so that young people can develop more assertive communication skills and empathy in the face of different conflict situations that may arise, including this reality with the use of technology and the learning environment, with difficulties, but with great satisfaction of having fulfilled the duty on the part of educators within the framework of the formative process.

Finally, the authors express their gratitude to the Pedagogical and Technological University of Colombia for their support in the development of this project.

## 2. Methodology

The route followed in this research from the methodological process corresponds to an interpretive paradigm with a mixed approach, where descriptive statistics were incorporated, for which a detailed analysis was carried out with the surveys applied to 130 undergraduate students from different training programs at the Pedagogical and Technological University of Colombia.

According to the above, this research is articulated to an educational reality given between theory and practice, support of the methodological process from the actions of the protagonists of the investigated process and the relationship with the investigator inherent in the interpretation exercise, as indicated by Guba and Lincoln (1994), whose support is given from the data analyzed in critical moments, through which the system passes, as evidenced in the results from a confinement due to Covid 19.

In the same way, the interpretation made it possible to analyze the data from a depth of knowledge in virtual Education, the experiences and perceptions in learning environments in a confinement stage, from the perspective of their own experiences in relation to the realities of those participating in the investigative process, the undergraduate student focus group, as proposed by Bordini and Sperb (2011), giving an articulation between the experiences and experiences of the narratives that lead to the interpretation of each participant in the research, from the university context after the Covid 19 pandemic, and this is how the meaning of technology as a pedagogical and didactic mediation is understood, in a focused scenario and university population, where the interpretation process leads to evidence this type of alternative research, where changes are generated in the way of learning and seeing education, before, during, and after the pandemic, in possible virtual learning environments.

Following the line of work, it is relevant to follow some stages of interpretation in the investigative process, using observation, statistical data analysis, the survey that is priority for Hernández, Fernández & Baptista (2006) when articulating these experiences and experiences, in relation to the analysis of the categories that support the research, hand in hand with the use of technologies and pedagogical mediations and thus achieve the generation of diverse knowledge, according to each context and reality experienced during these confinement times, as proposed by Giroux and Tremblay (2008), a meticulous analysis of the same is presented, within the framework of a mixed research, whose relationship between qualitative and quantitative becomes a multimodal scheme (Tashakkori and Teddlie, 1998) and the same work is articulated to the same stages given to obtain the data and synthesize the information, which according to Creswell (1998), must be supported by a representative sample, some data collection strategies and the synthesis of the process from each given interpretation.

In this case, open-ended questions were used and the content analysis technique was employed, which from a hermeneutic conception allowed for

a reading of reality to recognize the perceptions and experiences of the surveyed students

### 3. Theoretical perspective

When making a theoretical approach to learning environments, positions that recognize them as scenarios where subjects converge to develop knowledge, skills, abilities and values are privileged. However, these scenarios require the teaching action to condition them, transform them and integrate innovative processes and resources that are in harmony with the time and progress of the students. In this regard, the National Education Ministry (2010) cited in Castro (2019) indicates that "a good educational environment is one that allows the learning of the students to grow in quality, which occurs when there are teachers who daily create pedagogical scenarios to teach how to learn, recognizing the students' prior knowledge, the construction of knowledge and problem solving in specific contexts" (p.42). In harmony with the above, the learning environments become spaces with different physical, human, social and cultural characteristics, according to (Castro, 2019), where teachers and students come together to interact, communicate, teach and achieve the construction of knowledge from a meaningful learning that lasts for a lifetime.

Traditionally, the school has been conceived as a privileged place to shape behaviors, inculcate values and transmit knowledge, according to Arias (2018). The school is the bearer of the educational space where the process of interactions that configure the school environment takes place. However, ICTs, mainly expressed in social networks and mass media at a global level, have become the new educators. Therefore, it can be indicated that the home, the neighborhood, the city, the school, the virtuality, are spaces where learning environments can be enabled, as in the time of the pandemic where the learning environment that was implemented was based on the home with support from the virtuality, because "the confinement forced humanity to make radical pedagogical and social transformations, generated new scenarios and modes of life in which the use of new technologies prevails; physical spaces were replaced by virtual spaces; telematics

became the new channel of communication and information, telework and tele-education were forged" (Gordón, 2020, p.1).

According to Quintero & Munévar (2015), school environments should be characterized by being robust and impact educational contexts based on the quality of the teacher-student relationship as part of the pedagogical act, contributing to the quality of life in the school scenario through cooperation, participation, coexistence, peace, and joy. This is achieved through interdisciplinary approaches in each educational knowledge, skill, and experience.

Similarly, learning environments are framed within the context of what Flórez et al. (2017) describe as the result of various investigations into the physical environment or surroundings in which living beings interact. They express that it originated from the environmentalist paradigm but has changed due to various circumstances.

In the same way, Duarte (2003) points out the direction that each discipline takes from the conditions and resources used for learning. It is based on concepts, theories in relation to practice and its limitations and extensions depending on the depth of understanding adopted by students and educators in the learning process.

This is how Figueredo & Medina (2011) propose that a learning environment is a scenario built by the teacher with the full intention of achieving set goals, which involves determining the necessary spaces and tools for this purpose, so it must also establish the execution paths that guide development to reach the proposed goals. Flórez et al. (2017) also explains how learning environments become significant resources in the educational task based on the strategies and support tools used by the teacher and many of them must be able to manage themselves so that they can play with this diversity and quality of them when mediating in each educational process or pedagogical encounter. Therefore, they should be expressed with greater autonomy of the students and that they develop values in them, in addition to generating expectations in which the students themselves must propose and innovate to sustain the required environments.

Regarding the reality with the educational environment, each learning is related to each other, based on what Loughlin & Suina (1997 cited in Flórez et al. (2017)) stated, in that relationship where each teacher influences or mediates with students, knowledge and experiences for life, which is established through the organization of the physical space as such, adapting everything to the context and needs of the culture and immediate environment.

In summary, all spaces become educational environments for learners. Any scenario is suitable for inquiry, knowledge, and socialization as long as the teacher has a clear intention of teaching and a precise purpose in their pedagogical process, in accordance with Arias (2018).

School health has to do with pleasant environments where teachers and learners interact, since the concept of health is part of the concept of education. To understand the context of virtuality in the context of the pandemic, it is pertinent to analyze the initial purposes of this modality in normal academic situations. Therefore, it is important to understand that virtual education has been a training modality with many challenges and difficulties that have rarely been made as visible as in the pandemic, as it was being implemented with great acceptance for those with time and space difficulties. The expansion of distance education through virtual education became evident, causing users to have greater control over their sources of information and how they construct their learning. From this context, it can be noted that virtual education "has gained high acceptance in recent years, with an increasingly greater offer in areas with coverage in places and times that traditional face-to-face education does not attend to" (Varas-Meza et al., 2020, p.2). In line with this, Blanco & Anta (2016) conceive of virtual education as "a parallel world in which learning is acquired in a straight line, continuously and flexibly, and based on the situation."

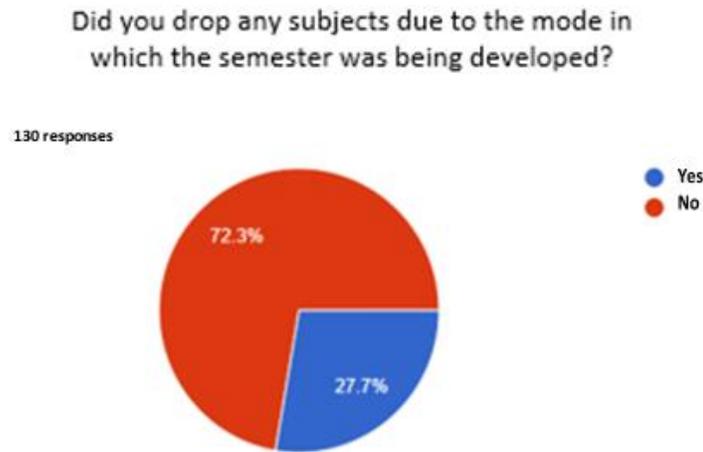
All the reviewed experiences highlight valuable aspects of virtual education in terms of flexibility, temporal organization, efficient access to didactic

resources, participation, interaction, collaborative work, innovation, personalized study pace, among other advantages that the modality brings to the teaching and learning processes of students and teachers. However, not all these advantages were enough during the pandemic, revealing a truth that was unknown in the school that called for a need for change, causing mutations that now portend the future of a disrupted school. Therefore, "this reality requires institutions not only to adopt an attitude of change and openness, but also to transform the teaching models and governance of institutions" (Varas-Meza et al., 2020, p.1).

#### 4. Results and discussion.

The analysis of the collected data revealed that during the pandemic period, there was a massive incorporation of technologies that led teachers and students to abandon physical and face-to-face practices to adapt to virtuality, making this contingency time an opportunity to explore virtual education, which constitutes a reflection of cyberculture. In this context, information and communication technologies (ICT) played a significant role, becoming the means to develop the teaching and learning process. These tools contribute to the way of teaching and learning, due to the usefulness they offer in designing, developing, and applying resources in educational processes, such as computer, audiovisual, and technological instruments, among others, that contribute to the realization of the right to education, according to Sánchez, Figueroa & Saavedra (2021).

Initially, the type of infrastructure available to students to access virtual classes was investigated, revealing that 50.8% accessed through a laptop computer, 34.6% through a cell phone, and 13.8% through a remote desktop. Then, the study population was questioned about the cancellation of any subject due to the unexpected virtual mode that was implemented, for which 72.3% of the students stated that they did not see the need to cancel, while 27.7% indicated that they did see the need to cancel, as shown in Figure 1.

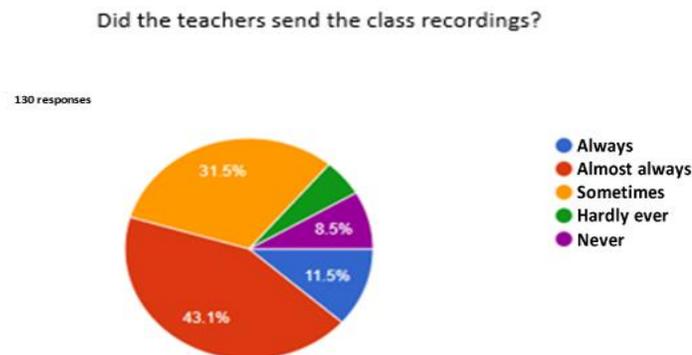
Figure 1. *Subject cancellation.*

*Note.* By the author.

The previous result allows us to refer that, despite the pandemic condition, social isolation did not stop the possibility of continuing with open academia and even with all the adversities that were experienced at a logistical level to function virtually, these practices of using technologies in education will continue to be refined to promote more enriched curricula that favor teaching and learning processes.

It is worth noting that one of the highest value actions left by technology-assisted teaching was the possibility of preserving recordings of the

content explained by the teacher in each of the class sessions, which can be seen in the students' response, illustrated in Figure 2, where 74.6% reported that the teachers sent their class recordings. Undoubtedly, this virtual mode of class practice facilitated the review and feedback of the student, making it easier to understand the topics. In this regard, Camacho (2020) refers to the remote mode leading to "flexible schedules, online class recording so that students could have access to content at other times. There was also flexibility in monitoring students' attendance" (p.3).

Figure 2. *Class recording.*

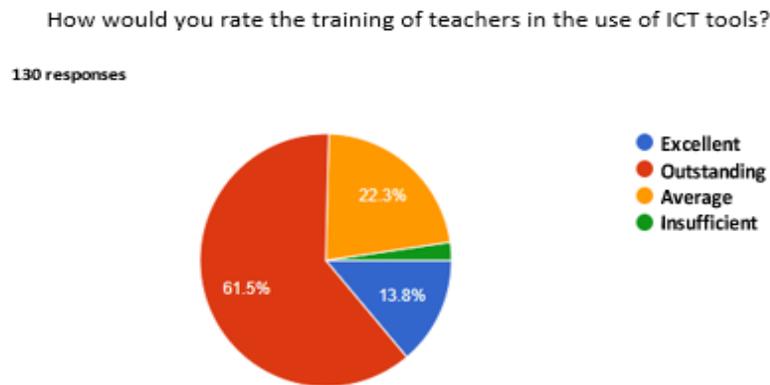
*Note.* By the author.

On the other hand, an exploration was carried out on the resources and means most used by teachers for virtual teaching during the pandemic period, observing that presentations, videos, and text documents were the most used for content development.

Now, regarding the students' appreciation of the teachers' qualification in the use of ICT, when it

comes to guiding virtual meetings, it was noted that 61.5% rated it as outstanding, 13.8% excellent, and 22.3% regular, as evidenced in Figure 4. However, it is considered necessary to go further and appropriate technology through reflection processes that lead to defining a new methodological strategy and rethinking teacher training aligned with the needs of today's society and its students (Camacho, 2020, p.6).

Figure 3. *Teacher Qualification.*

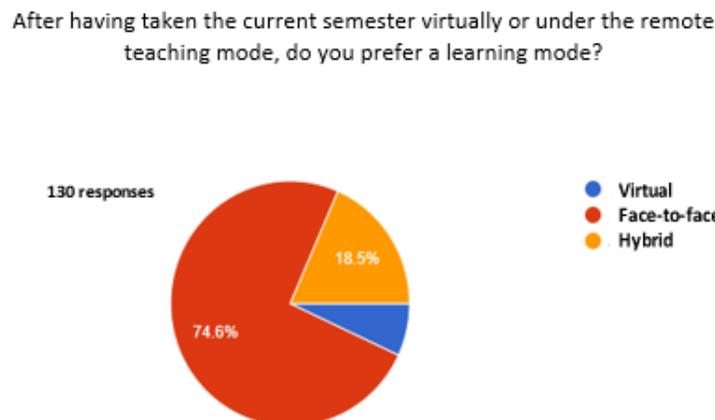


*Note.* By the author.

Additionally, the result obtained in Figure 5 drew attention, where students reported that after having taken the semester virtually, their

preference leaned towards the 74.6% face-to-face mode, as reflected in the following figure.

Figure 4. *Preference mode of study.*



*Note.* By the author.

It is evident that even students are not fully convinced of embracing a virtual learning process, perhaps due to the lack of face-to-face interaction, enjoyment of the physical classroom space, the limited infrastructure available, or the slight loss of attention that may be present in this modality. In this regard, Camacho (2020) indicates that the lack of interest in this learning modality may be due to the "lack of a pedagogical structure, that is, a methodology that allows its development, lack of student-teacher interaction, lack of discipline, poor internet connection, not all subjects benefit, and the large number of hours that teachers and students spend in front of computer screens and mobile devices, which could lead to vision problems" (p.21). In that context, it is pertinent to highlight the virtues of face-to-face education, in that it facilitates planning for group work and allows for daily acquisition of new experiences, clarification of doubts, social interaction, development of social skills, and acquisition of good academic experiences.

Undoubtedly, technologies have caused a transition that has left many lessons and

challenges in the training of educators, since "in a globalized world characterized by constant change, educational institutions and teachers face the double challenge of training for the present and, especially, for the future" (Ministry of Education, 2008). Hence, programs motivate the discussion and reflection of technology education in the country and explore new emerging pedagogical and didactic proposals that contribute to the transformation of the school, since "today's youth have gradually changed their ways of creating, informing, and communicating, conceiving the network as an interconnected universe where learning is achieved through exploration and network experience" (Saavedra et al., 2018, p. 3).

Now, with the purpose of detailing more precisely the challenges and difficulties experienced by students during the pandemic, open-ended survey questions were analyzed using content analysis techniques, which is recorded in the following table.

Table 1. *Challenges and difficulties of students during the pandemic.*

<b>BENEFITS</b>	<b>DIFFICULTIES</b>
Develop autonomy	Absence of connectivit
Understanding theory without the presence of practices	Technical failures in the equipment of teachers and student
Adaptation to virtual education	Absence of personal computer equipment
Method of evaluation	Find quick and clear answers from teachers in resolving doubts.
Understanding of mathematical exercises	The simulators used were sometimes not compatible with the student's equipment, limiting their use and understanding of the subject.
Review of topics without going into depth	Many hours working and studying in front of a computer
Difficulty understanding the subjects	Distraction at home that limited concentration

Conducting hands-on activities or experimentation through simulators	Discomfort when receiving classes by cell phone due to the size of the screen
Teamwork limited by time and connectivity of colleagues.	Lack of teacher qualification
Literacy in the use of ICT tools	Little assertive communication due to internet interference
	Many homeworks

*Note.* By the author.

Without a doubt, one of the great difficulties in executing remote education was the lack of connectivity, combined with the asymmetrical participation between students and teachers. In addition, a neglect of the practical component in subjects was reflected, as it was neglected, and although resources such as simulators and interactive boards were implemented for this purpose, knowledge gaps were left that are not stitched within the framework of a virtual learning process. In general, "the pandemic exposed the deep cracks in our societies. In the field of

education in particular, it made visible the huge inequalities in access to technologies (devices and connectivity) that prevented thousands of students from maintaining continuity in the face of social distancing" (Barrero et al., 2020, p.24)

On the other hand, this analysis also managed to identify some issues that students identified while studying under the assisted remote technology modality, which are detailed in the following table.

Table 2. *Benefits for students during the pandemic.*

<b>BENEFITS</b>	
Development of self-learning skills	Use of teaching resources for education
Appreciation of face-to-face learning environments	Improved grades
Awareness of different applications for academic development	Discovering all the benefits that technology offers in education
Class recording for knowledge reinforcement	Raising the average grades
Health protection	Time management
Flexibility in time and space	More time with family
Savings on transportation and accommodation	Comfortable work from home
Getting to know tools that can support face-to-face learning	Flexibility in grades

*Note.* By the author.

The features that stood out the most to students were the recording of virtual classes as a possibility for feedback, promoting the resolution of workshops and exam preparation. In addition, the preservation of the teaching material provided by teachers for future reviews. Londoño-Velasco et al., (2021) conducted a study with a similar intention and "recognize the effort and work done by teachers to continue academic activities during the transition to digitally supported education; they also identified as significant personal teachings that discipline and autonomy are fundamental for the development of their academic activities, especially during pandemic times" (p. 214).

Another problem that arose due to the pandemic in the educational processes was student dropout. However, at the university where the study was conducted, the dropout gap was not opened due to the actions taken, as around 3500 computers were loaned to students and approximately 200 computers were given to staff, which was complemented by 6500 data plans provided to undergraduate students. In addition, recognizing that teachers are important actors in the teaching process, training was offered in the didactic use of ICTs to counteract the limitations generated by virtual education without teachers qualified in digital competencies.

Undoubtedly, most educational institutions had to leave their static condition and react to an unexpected crisis, where teachers in their resilience capacity made it possible for education to continue, highlighting the complexity of the school and the problems that teachers had in educational institutions in terms of resources, teacher digital knowledge, and traditional methodologies distant from what is expected in the current time. Undoubtedly, the pandemic showed the relevance of digital knowledge dominance in the profile of today's teacher, which does not ignore his disciplinary knowledge, but now he must locate technological mediations that allow him to reach his knowledge to remote learning environments.

It is also rescued that in the virtuality, the time outside of class plays a fundamental role. Mainly because it allows the student to study at a time chosen by him, with material created to meet the

final objectives of the course. This makes synchronous class time of higher quality (ACOFI, 2022, p.14). In recent years, it has been said that the new cultural consumption of young people is very aligned with the use of technologies, immersive environments, and others; however, facing their training process through virtuality also challenges them to learn new tools to continue with their training processes. Riveros & Mendoza (2008) state that "ICT demand the existence of a new configuration of the traditionally used didactic and methodological process in centers, where knowledge does not necessarily have to lie with the teacher and the student's role is not just that of a receiver of information" (p. 34).

The post-pandemic has brought many meanings and learnings to the educational context, as it moved from preaching the theory of ICTs to putting it into practice, overcoming resistance to change from teachers, students, and parents, opening up opportunities for teacher networking, exploring new ways of learning and teaching, even of coexisting, and seeing a reinterpretation of the role of the teacher and the student. The pandemic was the opportunity to disrupt teachers and students to dismantle traditional teaching and learning practices, various obstacles emerged that had to be quickly overcome, although some remained pending, nevertheless, many fears were lost. "This complex situation should contribute to changing the ways in which we teach and learn; not just adding technology to educational processes, but really being a disruption that motivates deep changes in daily pedagogical practices" (Barrón, 2020, p.70);

Finally, in the face of new normality, a strengthened discourse is observed regarding the use and impact of ICTs and multiple theoretical constructs have been achieved that account for the experiences and learning lived within the framework of confined education in the world. However, there are many questions left about what will happen to that school disrupted by the events experienced during the pandemic? How can teachers reconfigure their pedagogical practice and rethink the meaning of education in the post-confinement? Without a doubt, hope is placed in that schools will stop operating classic practices that ignore the existence of technologies, as the

school rapidly went through three moments. Initially, the pre-confinement school, where a static and normalized condition of educational practices was observed, then, a confined school, which implied seeing a challenged, improvised, and renewing school. Now we are faced with a post-confinement school, which is perceived as uncertain and waiting for what was learned during the pandemic period to remain as a possibility for change and innovation in educational processes, in order to make the teaching and learning process no longer confined to buildings and classrooms, but to transcend as a present activity in all social activities, through the use of new technologies.

## 5. Conclusions

The experiences left by the pandemic must call for reflection by teachers and students to understand the various mutations that the school has undergone over time, as a synergy between technologies, the teacher, and the student was reflected, disrupting teaching and learning processes, creating a need to rewind educational practices. As a result, an empathetic view towards technology emerged from teachers and students, perhaps something that educational institutions and so-called digital natives were shouting for years ago because their cultural profiles were closely linked to the use of technology. In fact, this pandemic has challenged the creativity of all educators who have recognized the didactic value of integrating ICT into their teaching practices. However, it cannot be denied that the gaps increased and became visible in the context of this contingency.

Virtuality being a pedagogical and technological mediation, it gave meaning to education and allowed progress in knowledge and the needs of the educational process protagonists. In the confinement stage, a significant progress has been made in recognizing alternatives for transformation in learning environments.

With the appropriation of alternative learning environments during the confinement stage, new ways of experimenting with the relationship between theory and practice in higher education arise, an educational action that dynamizes and gives meaning to learning, where the traditional

chalkboard pedagogy is left behind for an alternative pedagogy of context adaptation and capable of mobilizing self-reflective thinking, in critical moments with educational experiences and alliances in the digital era, where technological interaction spaces begin to open and the existing digital gap begins to close.

According to the data found in this infrastructure report, significant progress was made in the appropriation of technological tools in the classrooms during confinement times to access virtuality at the university, primarily in the form of equipment for students. However, there is a lack of capacity in the number of equipment compared to the number of students and teachers, which demonstrates the need for generating more financial resources to finance the purchase of equipment and increasing budgets for programs, to appropriate and facilitate teaching, research, and extension support materials and close existing digital divides in these populations, thus improving conditions in virtual and technological learning environments for the quality of education. This will lead to innovation in the institution in the short, medium and long term, affecting the learning processes with greater capacity and opportunity in the use of information and communication technologies that mediate knowledge and respond to the current reality in learning. It is then necessary to provide a decisive response in the context of the academy's historical debt to society in the network society, which requires reaching more populations in their education process and being able to be at the forefront of the present as part of professional training for the world.

It has been found that during the Covid-19 pandemic, educators and students faced the challenges and opportunities of learning processes, using all possible learning strategies, even without being prepared. They embraced virtuality as part of their daily life, which turned out to be a strength for the workforce. Many of them used their homes as offices, their equipment, networks, and internet to serve the community and the university. This experience has not been recognized by society and authorities, even with their own resources, a historical debt for educators. From self-reflection, this work made an

important contribution to society and captured the resonance of students, many of whom rose to the occasion and responded to teaching-learning processes in the context of educational practice, with flexibility in accessing and developing academic activities. Virtuality became an important ally during confinement, from which significant learning experiences were acquired for life and in life itself. This requires an open and deliberating academia that demands continuous improvement.

Virtuality has come to stay, and it is a determining factor in its use in every academic space, which implies advancing and improving, from everyday life, solidarity, and the exercise of learning processes and the management of information and communication technologies, a key to dialogue among professionals, which demands the empowerment of technology in light of capabilities and continuous improvement in educational conditions and opportunities to strengthen them from education careers, where these knowledge, practices, and experiences are mediated in each field of knowledge and are framed in academic projects in a forceful way, because in light of this reality, no education professional can be left behind in this training, because it increasingly demands greater interaction between these technological mediations, society demands professionals at the forefront of the moment, it implies that bachelor's and professional programs increase virtual classes and use these types of technological tools in everyday life.

It is relevant to disseminate this research, in the sense of recognizing each experience given during the confinement stage, from the data found as challenges and challenges, generating difficulties and decisions of undergraduate students, because it involved reflecting and understanding a reality from perceptions and experiences, in a crucial stage of life that nobody expected, but it happened, in which a series of obstacles and difficulties were overcome with height in the human, academic, and professional fields, turned into learning opportunities in each area, in both rural and urban contexts, beyond conventional classrooms, where knowledge, experiences, practices, and alternative didactics were privileged, in a dialogue between

teachers and students in virtual mode, as part of the learning processes, managing to interact and mediate in the handling of technological tools in complex but possible conditions in the midst of adversity.

The use of virtuality as part of the relationship with technology leads to the generation of diverse strategies that impact learning through the search for relevant information in the educational field, which is part of the dialogue among teachers, students, and community in search of innovative educational transformations or scenarios.

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