

# Educational Psychology and Digital Skills in Times of the COVID-19 Pandemic Psicología Educativa Y Las Competencias Digitales En Tiempos De Pandemia Por COVID-19

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DOI: <https://doi.org/10.47772/IJRISS.2026.100800167>

Received: 14 September 2026; Accepted: 19 September 2026; Published: 29 August 2026

## ABSTRACT

The COVID-19 pandemic acted as a catalyst for structural transformations in educational systems worldwide, accelerating the transition toward virtual learning environments while simultaneously exposing the digital, emotional, and pedagogical shortcomings of institutions, teachers, and students. In the Latin American context, this process revealed deep gaps between the informal use of technologies and their formal academic application, while also highlighting the psychological dimension of online learning: autonomy, self-regulation, motivation, and emotional well-being. This article integrates two complementary approaches to the phenomenon: on the one hand, a quantitative diagnostic study conducted with 171 students from the Bachelor's Degree in Educational Sciences at the Universidad Autónoma de Sinaloa, aimed at evaluating their digital profile and aptitude for online learning; on the other hand, an analysis of the implications of educational psychology in the management of digital skills during and after the pandemic. The results show that students possess an intermediate-to-advanced digital profile and a favorable attitudinal disposition, with over 52% at an advanced level in skills related to engagement, motivation, and virtual collaboration, thereby establishing favorable institutional conditions for the implementation of high-quality virtual programs.

**Keywords:** Digital skills; distance education; educational psychology.

## Resumen

La pandemia por COVID-19 funcionó como catalizador de transformaciones estructurales en los sistemas educativos a nivel global, acelerando la transición hacia entornos virtuales de enseñanza y evidenciando de manera simultánea las carencias digitales, emocionales y pedagógicas de instituciones, docentes y estudiantes. En el contexto latinoamericano, este proceso reveló brechas profundas entre el uso informal de las tecnologías y su aprovechamiento académico formal, al tiempo que puso de relieve la dimensión psicológica del aprendizaje en línea: autonomía, autorregulación, motivación y bienestar emocional. El presente artículo integra dos aproximaciones complementarias al fenómeno: por un lado, un estudio diagnóstico cuantitativo realizado con 171 estudiantes de la Licenciatura en Ciencias de la Educación de la Universidad Autónoma de Sinaloa, orientado a evaluar el perfil digital y las aptitudes para el aprendizaje en línea; por otro, un análisis de las implicaciones de la psicología educativa en la gestión de competencias digitales durante y después de la pandemia. Los resultados evidencian que los estudiantes poseen un perfil digital intermedio-avanzado y una disposición actitudinal favorable superior al 52% en nivel avanzado en competencias de compromiso, motivación y colaboración virtual, que configura condiciones institucionales propicias para la implementación de programas virtuales de calidad.

**Palabras clave:** Competencias digitales; educación a distancia; psicología educativa.

## INTRODUCTION

The origin of the pandemic began with the emergence of the coronavirus-2 virus in December 2019 in the city of Wuhan, China, which is responsible for coronavirus disease (COVID-19) and triggers severe acute respiratory syndrome (SARS-CoV-2). The World Bank (2020) described it as the most significant crisis experienced by educational systems in recent decades. In Mexico, the closure of 255,000 schools on March 23, 2020, left 36 million students (from primary, secondary, high school, and university levels) deprived of classes (Reimers, 2020). Public and private educational institutions began to implement measures in response to the health contingency to ensure academic continuity, represented through flexible educational models or action plans. Globally, the United Nations Educational, Scientific and Cultural Organization (UNESCO) (Jabonero, 2020) indicated that the physical closure of educational institutions impacted 1.52 billion students across 180 nations. This circumstance precipitated a compelled shift towards non-face-to-face learning environments (Zamora, 2022), thereby exposing two concurrent realities: the vulnerability of educational systems to unexpected technological upheavals and, conversely, the capacity of virtuality to effect transformation when integrated with suitable pedagogical frameworks. As Martí (2010) observes, the established paradigm has undergone a reversal: it is no longer the student who travels to the university; rather, the university now moves to the student.

Beyond technological access, the crisis revealed the centrality of educational psychology in digital transition processes: fear, uncertainty, and emotional inequality (Santos, 2009) became variables as decisive as connectivity or infrastructure. The massification of higher education in Latin America adds an additional layer to this challenge: expanding coverage to serve populations excluded from face-to-face schemes and offering greater educational flexibility (Mataran, et al., 2020).

In response to this context, distance education emerges as a systemic strategy with transformative potential. The bachelor's degree in educational sciences at the Universidad Autónoma de Sinaloa (UAS) is currently undergoing this transition process, promoting artificial intelligence and hybrid models (UAS, 2025). This study aims to provide local empirical evidence to inform these institutional decisions from a dual perspective: the diagnosis of the student digital profile and the implications of educational psychology in managing the shift in modality.

Digital skills comprise a set of knowledge, abilities, attitudes, and strategies required for the use of information and communication technologies and digital media. Initially, information technologies and digital skills, according to Cabero and Palacios (2020), enable access to, processing of, and transmission of information through different channels and communication media. Likewise, the European Parliament and the Council (DIGCOMP) organizes these skills into five interrelated areas, whose understanding is essential for the design of virtual programs in Latin American university contexts (see Table 1).

**Table 1.** Digital competence areas according to the DIGCOMP Framework

| No. | Area                            | Description                                                                                                          |
|-----|---------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1   | Information and data literacy   | Identify, locate, retrieve, store, organize, and analyze digital information; evaluate its purpose and relevance.    |
| 2   | Communication and collaboration | Communicate in digital environments, share resources, and connect and collaborate with others through digital tools. |
| 3   | Digital content creation        | Create and edit new content, integrate knowledge, and produce multimedia content and computer programming.           |
| 4   | Safety                          | Protection of personal data and digital identity; safe and sustainable use of technologies.                          |
| 5   | Problem solving                 | Identify digital needs, make decisions, solve technical problems, and update one's own skills and those of others.   |

**Note:** Adapted from the European Digital Competence Framework (DIGCOMP). *Parlamento Europeo y del Consejo*, 2006.

This framework shows that digital competence is not limited to the instrumental use of devices, but also includes cognitive, creative, and ethical dimensions that must be deliberately cultivated in university educational

processes, whose main objective in the European context is to enable citizens to contribute to individual development in society and to everyday life (Area, 2020).

Educational psychology, defined as the branch of psychology responsible for studying learning and human development within the field of education, acquired exceptional relevance during the pandemic. As Hodges (2020) points out, the crisis altered routines and lifestyles across the entire educational community, requiring continuous adaptation to unexpected and unusual situations since March 2020. Inequality was not expressed solely in terms of technological infrastructure; it took the form of what Reay (2004) refers to as emotional capital: structural limitations for attending online classes—such as inadequate spaces, lack of connectivity, and absence of family support—generated differential levels of distress, fear, and disconnection.

This phenomenon also affected teachers, who were overwhelmed by institutional demands for academic continuity without the necessary pedagogical and emotional support. In this context, educational psychology must fulfill three strategic functions in the transition toward virtuality: the emotional support of students, families, and teachers; the development of psychoeducational programs oriented toward self-regulated learning; and the design of strategies for return and adaptation to new educational environments (Padilla, 2018).

Distance education in its virtual, hybrid, or online modalities not only expands coverage; it can become an instrument of educational inclusion by removing the barriers of face-to-face learning for workers, people with disabilities, residents of rural areas, and those with family responsibilities. The new era of distance learning formally began with the Open University in 1967 (Coicaud, 2010), although its inclusive potential has increased exponentially with contemporary technological development. This model requires a new process of learning to learn, in which learning is determined by a didactic and pedagogical model that demands new conditions, qualities, and skills from both educators and learners (Marti, 2010). The very concept of university education shifts from a linear, face-to-face, and fixed-duration model to a modular model, recognizable at different moments and contexts in the student's life, thereby contributing to autonomy and self-regulation.

García (2025) identifies autonomy and self-regulation as the most determining individual factors for success in distance learning environments. Student autonomy, as a self-regulated behavior, holds key value reflected in the ability to locate, organize, and process information through analysis, argumentation, and critique. The Internet provides resources for this autonomous learning: databases, educational programs, synchronous and asynchronous interactive resources, educational platforms, and collaborative networks. For students identified as digital natives or the digital generation (Prensky, as cited in Coll & Monereo, 2008), characterized by rapidly receiving information, preferring multitasking, and learning in a playful manner, the transition to virtual environments can be natural if designed with pedagogical intentionality. Reflective thinking, critical analysis, and creativity constitute the pillars of the autonomous professional training process required by distance education.

As a result of the impact and accelerated technological advancement in society, education has become globalized—an undeniable fact. Consequently, there is a constant emphasis on the need for universities to adapt to the demands of contemporary society, highlighting that higher education institutions must be flexible and develop ways to integrate ICT into educational processes. This integration should support students with essential strategies that enable them to think, discern, and critically evaluate information, as well as to create and innovate. These technological skills and competencies will prepare them for their incorporation into the information and knowledge society.

Internet users worldwide spend an average of 2 hours and 25 minutes per day on social media, although this can vary significantly from one country to another, as reported by Digital 2021, the latest annual report on social media and digital trends, where Mexico ranks fifth, with an average of 3 hours and 27 minutes per day.

In response to the pandemic, educational institutions worldwide promoted a transition to virtual/non-face-to-face education; however, as Brown and Salmi (2020) note, “few were prepared to carry out this change quickly and efficiently” (p. 25), partly because teaching and learning in this modality represent an unprecedented experience. Mercader (2018) points out that most teachers and students have limited practice in the use of pedagogical approaches based on the integration of technologies.

Education cannot be isolated from the technological upheaval present in all areas, which demands the modification of processes, including traditional pedagogical methodologies, in order to adapt to the new technological models of society. According to Fernández (2001), “Developing digital competence in the educational system requires the proper integration of ICT use in classrooms and that teachers have the necessary training in this competence” (p. 27). Although each of these actions is defined by the particularities of each school and educational level, they all converge on the need to develop three essential competencies to ensure continuity: communicative interaction, the ability to select or design materials, and assessment using technologies.

It is important to note that students are considered a generation shaped by technological advances, accustomed to thinking and processing information in ways that differ completely from the previous generation, not only in circumstances but also in practice, where proficiency in the use of digital tools is refined over time. They are known as the Digital Generation or Digital Natives; according to (Marín, et al., 2020), they possess the following characteristics:

- They want to receive information quickly and immediately.
- They are attracted to multitasking and parallel processes.
- They prefer graphics over text.
- They prefer to learn in a playful manner rather than adopting the rigor of traditional work (p. 45).

Virtual platforms, due to their interactivity and interconnection, can serve as valuable didactic resources to support the teaching process, and when used appropriately, they can enhance academic performance. There are various strategies and methodologies that leverage technology and its advantages to optimize learning processes. One of them is the use of constant practice (“learning by doing”). Understanding students provides a basis for devising different ways of working, taking into account their particular characteristics. The school, as both a physical and symbolic space, can and should offer the possibility of going beyond the boundaries of what is thinkable and imaginable. It must be a space of physical, social, and emotional protection for students. According to the measures implemented by authorities, classes had to be delivered through digital means, which made it difficult for some students to attend, as they did not have access to technological devices required to carry out school activities assigned by the institution.

The breadth in the quantity and forms of access to digital information brings with it complexity in its management and comprehension for effective use. It is not enough for users to search for bibliographic or digital information; they must know how to search, analyze, and evaluate it, as well as process and use it to incorporate new information or knowledge. These qualities are cultivated through the daily use of media, but from a teaching perspective, they can be accelerated by engaging students through instructional and virtual processes. Mastery of access to information, as well as its processing, constitutes highly important qualities, integrating various factors of professional training such as autonomy, cooperation, critical thinking, and technological proficiency. Without these, students would be unable to carry out the numerous tasks required to effectively use available information, in addition to “accelerating students’ reasoning by providing conditions for refining their own thinking” (Sevillano, 2003, p. 80). The difficulties involved in institutional integration into virtual or distance higher education systems have a strong cultural component, due to the widespread preference for face-to-face and classroom-based systems. One of the greatest challenges, without a doubt, lies in developing individuals’ technological and disciplinary competencies, in which lack of experience and self-confidence, as well as confidence in the available means, play a significant role. In light of this, it is necessary to uphold the principle of equal access that distance education still offers, viewed as a “functional philosophy” of this educational modality (Coicaud, 2010, p. 91).

## METHODOLOGY

In this research, a quantitative diagnostic study was conducted with 171 students from the Bachelor’s Degree in Educational Sciences program at the Universidad Autónoma de Sinaloa (UAS), across three academic units

located in Los Mochis, Mazatlán, and Culiacán, respectively, representing 62% of the total enrolment. The study was carried out in June 2022 using a non-probabilistic or purposive sample, with the following selection criteria: (a) enrolment in the same academic course and (b) acceptance of the instrument without prior information about its objective (Sampieri, et al., 2010). Given the perceived readiness for a potential transition to the virtual modality of the educational program, the survey administered made it possible to diagnose the level of self-recognition in the use and application of the Internet. The survey instrument was structured into three blocks of items, each aimed at capturing a different dimension of readiness for online learning:

**Block 1. Performance as an Internet user:** Assessed the frequency of computer and Internet use in both academic and non-academic contexts, including browsing, communication, and information searching. The central variable was the level of familiarity with the everyday digital environment.

**Block 2. Skills as an Internet user:** Measured proficiency in digital resources organized into three levels (basic, intermediate, and advanced), ranging from email use to participation in educational platforms, forums, and videoconferences. The variables assessed included frequency of use and self-perceived level of proficiency.

**Block 3. Aptitudes for online learning:** Explored four groups of competencies necessary for success in virtual environments: knowledge competencies (understanding, analysis, research), communication competencies (oral, written, collaborative), information management competencies (organization, autonomy, record-keeping), and attitudinal competencies (commitment, motivation, sense of belonging to groups).

The data were processed using DYANE software (version 2), which enabled the calculation of frequencies and correlations between blocks. This methodological design is consistent with the recommendations of Mataran, et al. (2020), who emphasize the need for prior diagnoses that measure not only technological access but also students' subjective competencies, given that the digital divide is expressed in cognitive and attitudinal skills that go beyond available infrastructure.

Regarding the psychometric properties of the instrument, the survey was designed ad hoc for this diagnostic study following the general methodological criteria for exploratory research proposed by Sampieri et al. (2010), and its three blocks were reviewed internally by the research team to ensure that item wording covered the dimensions of Internet use, digital skills, and aptitudes for online learning described above. However, no formal content-validity procedure (expert-panel review) or internal-consistency reliability analysis (e.g., Cronbach's alpha) was carried out prior to its administration. This is acknowledged here as a methodological limitation of the study, and it is addressed further in the discussion and limitations section below; future applications of this or similar instruments in Latin American university contexts should incorporate and report these psychometric indicators.

## RESULTS AND DISCUSSION

The results allow for the construction of a relatively favorable profile of students regarding their readiness and capacity to adopt distance learning environments. Below is a summary of the study findings:

**Table 2. Performance as an Internet user**

| Computer use           | Never (%) | Rarely (%) | Frequently (%) |
|------------------------|-----------|------------|----------------|
| At School              | 13.45     | 52.05      | 34.5           |
| Outside School         | 0.58      | 14.04      | 85.38          |
| To Browse the Internet | 0.59      | 13.61      | 85.8           |
| To communicate         | 2.34      | 19.88      | 77.78          |
| To Search              | 0         | 8.77       | 91.23          |

**Note:** Own elaboration.

Table 2 shows the dissociation between school and out-of-school Internet use: while only 34.5% of students frequently use the Internet at school, 85.38% do so frequently outside of it. A total of 91.23% regularly conduct online searches. This indicates the existence of an adequate digital culture, a necessary condition for current

professional development, and reflects the “new technological paradigm” (Coll & Monereo, 2008). This gap represents, at the same time, both an asset for the transition toward virtuality and a signal that the university must strengthen its internal digital infrastructure.

Table 3. Skills as an Internet user

| Online Communication                 | Never (%) | Rarely (%) | Frequently (%) | Trainee (%) | Basic (%) | Intermediate (%) | Advanced (%) |
|--------------------------------------|-----------|------------|----------------|-------------|-----------|------------------|--------------|
| <b>Basic Internet Resources:</b>     |           |            |                |             |           |                  |              |
| Email                                | 1.18      | 18.82      | 80.0           | 2.35        | 18.85     | 29.41            | 45.29        |
| Information search                   | 0         | 8.77       | 90.64          | 3.51        | 21.64     | 33.92            | 38.60        |
| File and program downloads           | 7.60      | 45.61      | 45.61          | 12.87       | 27.49     | 29.82            | 24.56        |
| File sharing                         | 4.79      | 41.92      | 52.69          | 7.19        | 23.35     | 29.34            | 32.93        |
| <b>Intermediate level resources:</b> |           |            |                |             |           |                  |              |
| Database access                      | 20.71     | 61.54      | 15.38          | 20.71       | 30.18     | 25.44            | 9.47         |
| Send and receive files               | 33.53     | 52.35      | 12.94          | 18.82       | 27.06     | 22.35            | 14.12        |
| Make Purchases                       | 84.21     | 11.11      | 4.68           | 35.09       | 14.04     | 11.70            | 8.77         |
| Subscribe to websites                | 3.53      | 23.53      | 70.59          | 4.12        | 22.94     | 25.29            | 40.59        |
| <b>Advanced level resources:</b>     |           |            |                |             |           |                  |              |
| Social media use                     | 4.68      | 17.54      | 76.61          | 3.51        | 15.79     | 19.30            | 52.05        |
| Participation in virtual forums      | 35.29     | 55.29      | 8.24           | 24.12       | 25.29     | 21.18            | 11.18        |
| Videoconference participation        | 61.90     | 31.55      | 5.95           | 33.33       | 20.24     | 14.29            | 7.14         |
| Online Platform participation        | 14.62     | 62.57      | 21.64          | 18.71       | 30.41     | 22.22            | 15.79        |

**Note:** Own elaboration.

Table 3 shows that, in terms of skills, email and information searching have the highest levels of frequent use (80% and 90.64%, respectively), with proficiency that students self-assess as intermediate to advanced. Social media stands out as the advanced resource with the highest level of mastery (76.61% frequent use, with a self-perceived advanced level of 52.05%). However, resources more directly linked to formal learning, such as consulting academic databases (only 15.38% frequent use) and participation in educational platforms (21.64% frequent use), show low levels of use and proficiency. This finding guides specific decisions: any virtual program should include an induction phase for the use of academic platforms and scientific information.

Table 4. Aptitudes for online learning

| Competency                                    | Basic (%) | Intermediate (%) | Advanced (%) |
|-----------------------------------------------|-----------|------------------|--------------|
| <b>Knowledge competencies</b>                 |           |                  |              |
| Comprehension and assimilation of texts       | 13.69     | 69.05            | 17.26        |
| Generate new ideas and proposals              | 13.77     | 65.27            | 20.96        |
| Analysis and synthesis of information         | 12.05     | 67.47            | 20.48        |
| Recognition of teaching and learning problems | 14.97     | 50.30            | 34.73        |
| Individual Research                           | 15.06     | 45.18            | 39.76        |
| Adapting to new virtual environments          | 16.87     | 57.83            | 25.30        |
| <b>Communication skills</b>                   |           |                  |              |
| Oral and written communication                | 14.46     | 44.58            | 40.96        |

|                                                             |       |       |       |
|-------------------------------------------------------------|-------|-------|-------|
| Collaborative work in a virtual environment                 | 19.88 | 49.40 | 30.12 |
| Communication with experts                                  | 29.45 | 56.44 | 14.11 |
| <b>Information management skills</b>                        |       |       |       |
| Information management and planning                         | 17.47 | 65.66 | 16.87 |
| Autonomous organization                                     | 20.00 | 50.91 | 29.09 |
| Record work and results in a timely manner                  | 12.65 | 43.37 | 43.98 |
| <b>Attitudinal skills</b>                                   |       |       |       |
| Commitment to work and collaborate in a virtual environment | 10.84 | 36.75 | 52.41 |
| Availability and self-motivation in learning                | 9.64  | 33.73 | 56.63 |
| To belong and remain in a group or collective               | 9.64  | 34.94 | 55.42 |

**Note:** Own elaboration.

Specifically, Table 4 presents the most robust finding and the one with the greatest implications for institutional management, located in the attitudinal block: 52.41% of students self-assess their level of commitment to work and collaborate in virtual environments as advanced; 56.63% report an advanced level of availability and self-motivation for learning; and 55.42% consider their ability to belong to and remain in a virtual community as advanced. These percentages are notably higher than those observed in cognitive and technical competencies, suggesting that the subjective disposition toward a change in modality is a real resource available to the institution to promote the transition. A strong attitude of commitment and collaboration is maintained, with considerable optimism, as students perceive their level as advanced, thereby confirming the recognized “far-reaching didactic potential” of digital media in education (Cabero, 2020). In summary, the diagnosis reveals that students possess sufficient aptitudes for online learning, with knowledge, communication, and information management competencies at intermediate levels, and a predominantly advanced attitude of commitment and collaboration. The institution therefore has favorable subjective conditions for implementing virtual programs.

The dissociation between the intensive out-of-school use of the Internet (85.38%) and its limited use in school settings (34.5%) is not merely an infrastructure gap: it reflects a difference between the informal use of ICT—such as social media, general searches, and messaging—and the structured academic use required by formal distance education. Mercader (2018) warns that most teachers and students have limited experience in the intentional use of technologies for pedagogical purposes, and the data from this study confirm this warning in the specific context of the bachelor's degree in educational sciences at the UAS. This distinction is crucial for the design of digital induction programs that must accompany any process of curricular virtualization. It is not enough for students to use ICT informally; it is necessary to deliberately cultivate the five areas of DIGCOMP: information, communication, content creation, safety, and problem solving in formal academic environments.

The most valuable finding of the study, in line with García (2025), is the attitudinal profile: more than 52% of students report advanced levels which, according to the author as the most determining factors for success in distance education, constitute a form of subjective capital that the institution can leverage through planned implementation. In this sense, the pandemic acted as an involuntary accelerator of attitudinal maturity toward virtuality. The forced experience of online learning during confinement left a positive mark on students' subjective disposition, although it also exposed the system's shortcomings in terms of emotional support and psychoeducational assistance (Hodges, 2020).

The pandemic crisis clearly revealed that the transition toward virtuality is not exclusively a technological challenge; it is fundamentally a psychosocial process. Fear, distress, and emotional inequality (Santos, 2009; Reay, 2004) became barriers as real as the lack of connectivity. In this context, educational psychology emerges as a strategic agent in three complementary dimensions:

1. Emotional support: psychoeducational sessions for students, families, and teachers aimed at preventing or addressing psychological disturbances resulting from uncertainty and changes in learning modalities.

2. Development of autonomy and self-regulation: specific programs to cultivate students' self-managed learning competencies required by distance education.
3. Support for return and the new normal: reintegration strategies that assess the impact of new habits developed during confinement and promote a safe and sustainable return.

As Padilla (2018) points out, not only teachers but also students must be willing to change traditional models and adopt more participatory roles so that the emergency translates into a structural and lasting educational change.

## CONCLUSIONS

The research has integrated two complementary perspectives: the empirical diagnosis of the digital profile and the analysis of the implications of educational psychology, to provide a comprehensive view of the challenges and opportunities faced by Latin American higher education in its transition toward virtual and flexible models. This dual approach has allowed for a more nuanced understanding of the conditions under which distance education can be successfully implemented, moving beyond purely infrastructural considerations to encompass the human, emotional, and cognitive dimensions that ultimately determine educational outcomes.

The data from the diagnostic study conducted with 171 students from the bachelor's degree in educational sciences at the UAS show that the student population presents favorable subjective conditions for the implementation of distance education programs: an intermediate-to-advanced digital profile in technological skills and levels above 52% of self-assessed advanced performance in commitment, motivation, and virtual collaboration. However, the gap between informal use and academic use of ICT, reflected in the limited utilization of formal educational platforms and academic databases, reveals that attitudinal disposition is a necessary but not sufficient condition. Bridging this gap requires intentional pedagogical strategies than progressively introduce students to academic digital environments, fostering not only technical proficiency but also the critical and disciplined use of digital resources for learning purposes. Faculty play a central role in this process, as their ability to design meaningful and engaging virtual learning experiences directly influences students' willingness to adopt formal digital tools and platforms.

The COVID-19 pandemic clearly demonstrated that educational systems must integrate the psychological dimension into their digital transformation processes. Fear, emotional inequality, and the lack of psychoeducational support are variables that condition the success or failure of any transition toward virtuality, regardless of technological availability. In this sense, educational psychology is not an auxiliary component, but a structural axis of the new educational model. Institutions that neglect the emotional and motivational dimensions of their student populations risk replicating, in virtual environments, the same inequalities that have historically characterized face-to-face education. The pandemic also exposed the uneven distribution of emotional resilience among students, with those from socioeconomically vulnerable backgrounds disproportionately affected by anxiety, disconnection, and academic disengagement during periods of forced remote learning.

Looking ahead, it is essential that Latin American universities develop comprehensive transition frameworks that simultaneously address infrastructure pedagogical design, teacher training, and student psychological support. The findings of this study suggest that institutionally supported, which places the responsibility of change primarily on educational systems and their capacity to adapt. A sustainable model of virtual higher education must therefore be built on three pillars: digital access, pedagogical innovation, and psychoeducational accompaniment, understood not as separate initiatives, but as an integrated and ongoing institutional commitment to educational equity and quality.

Furthermore, the results of this research call for a rethinking of how higher education institutions assess student readiness for virtual learning. Traditional diagnostic tools that focus exclusively on device ownership or internet connectivity are insufficient. Institutions must adopt multidimensional evaluation instruments capable of capturing attitudinal, motivational, and cognitive dimensions of digital competence, as these factors prove to be stronger predictors of academic success in virtual environments than mere technological access. This shift in

assessment culture represents both a methodological and a philosophical challenge for university systems that have historically prioritized quantifiable infrastructure indicators over subjective human variables.

Finally, it is worth emphasizing that the transition toward virtual and flexible educational models in Latin America is not merely a technological challenge, but a profoundly social and pedagogical one. The students who participated in this study demonstrated that the willingness to engage with digital learning is present; what remains insufficient are the institutional conditions, support structures, and pedagogical frameworks needed to channel that willingness into meaningful and equitable learning experiences. Addressing this gap is not optional; it is an ethical imperative for any educational system committed to inclusion, quality, and the preparation of future professionals capable of navigating an increasingly complex and digitally mediated world.

## REFERENCES

1. Area, M., Bethencourt Aguilar, A., & San Nicolás Santos, M. B. (2020). De la enseñanza presencial a la docencia digital en tiempos de COVID-19. RIED. Revista Iberoamericana de Educación a Distancia, 23(2), 9–27. <https://doi.org/10.5944/ried.23.2.26573>
2. Cabero-Almenara, J., & Palacios-Rodríguez, A. (2020). Marco europeo de competencia digital docente “DigCompEdu”. Revista Electrónica Interuniversitaria de Formación del Profesorado, 23(2), 1–15. <https://doi.org/10.6018/reifop.413601>
3. Coll, C. & Monereo, C. (Eds.). (2008). Psicología de la educación virtual. Aprender y enseñar con las Tecnologías de la Información y la Comunicación. MORATA.
4. Fernández, F. (2001). La enseñanza universitaria a distancia. Una reflexión desde la UNED. Madrid, GRABAR.
5. García Aretio (21 de agosto de 2025). Autonomía y autorregulación en el aprendizaje a distancia (C.EaD-63). Contextos universitarios mediados. [doi.org/10.58079/14hoe](https://doi.org/10.58079/14hoe)
6. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educause Review. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
7. Jabonero, M., & Pedró, F. (2020, 5 de mayo). La gran expansión en tiempos de pandemia. El País. <https://elpais.com/opinion/2020-05-05/la-gran-expansion-en-tiempos-de-pandemia.html>
8. Marín-Díaz, V., Vega-Gea, E., & Passey, D. (2020). Determinants of teachers’ digital competence. Sustainability, 12(22), 9067. <https://doi.org/10.3390/su12229067>
9. Martín Criado, E. (2010). La escuela sin funciones: Crítica de la sociología de la educación. Los Libros de la Catarata.
10. Mataran, G., Valderrama, J. A., & Restrepo, J. F. (2020) Las modalidades de educación a distancia y virtual en la formación posgradual: una estrategia para la educación inclusiva en América Latina. Revista Educación Superior y Sociedad (ESS), 32(1), 36-58. <https://unesdoc.unesco.org/ark:/48223/pf0000374808>
11. Mercader, C. (2018). Las resistencias del profesorado universitario a la utilización de las tecnologías digitales. Aula Abierta, 47(2), 167–174. <https://doi.org/10.17811/rifie.47.2.2018.167-174>
12. Padilla Partida, S., (2018). Usos y actitudes de los formadores de docentes ante las TIC. Entre lo recomendable y la realidad de las aulas. Apertura, 10(1), 132-148. <https://doi.org/10.18381/Ap.v10n1.1107>
13. Reay, D. (2004). Education and cultural capital: The implications of changing trends in education policies. Sociology, 38(2), 333–350. <https://doi.org/10.1177/0038038504040868>
14. Reimers, F. M., & Schleicher, A. (2020). A framework to guide an education response to the COVID-19 pandemic. OECD. <https://www.oecd.org/education/framework-education-response-covid-19.pdf>
15. Sampieri, R. H., Collado, C. F., & Lucio, P. B. (2010). Metodología de la investigación (5.ª ed.). México: McGraw-Hill.
16. Santos, B. de S. (2009). Una epistemología del sur: La reinención del conocimiento y la emancipación social. Siglo XXI Editores.
17. Sevillano, G. (Coord), (2003). Nuevas tecnologías aplicadas a la educación. Madrid, Universidad Nacional de Educación a Distancia.



18. Universidad Autónoma de Sinaloa (UAS). (22 de diciembre de 2025). La UAS a la vanguardia: impulsa la inteligencia artificial, la microcredencialización y modelos híbridos. <https://dcs.uas.edu.mx/noticias/12761>
19. World Bank. (2020). The COVID-19 pandemic: Shocks to education and policy responses. World Bank Group. <https://doi.org/10.1596/33696>
20. Zamora Echegollen, M. A., & Contreras Vizcaíno, J. J. (2022). La migración forzada del dispositivo escolar al espacio familiar: experiencias y problematizaciones de las clases virtuales durante la contingencia sanitaria. *Diálogos sobre educación. Temas actuales en investigación educativa*, 13(24), 1-23. <https://doi.org/10.32870/dse.v0i24.1054>