



## Expanded education in formal and informal educational contexts

### La educación expandida en contextos educativos formales e informales

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#### ABSTRACT

The manuscript presented aims to encourage reflection on educational practices deployed in formal and informal contexts. In order to address the needs of post-pandemic education, new forms of expanded, invisible, and ubiquitous education are contrasted. This article aims to promote a debate and exchange of knowledge, practices, and pedagogical criteria that would enable the acquisition of emerging knowledge. The factors that enrich the quality of the bond built between the educator and the students based on a dialogic, dynamic, and open relationship are taken into consideration. The results support the importance of promoting the integration of previous experiences and knowledge and openness to learning in unconventional spaces and outside school hours. Finally, guidelines are offered for the future study and design of new forms of educational expansion as a way to strengthen policies and practices in different contexts.

**Keywords:** communication, education, extensive education, learning education, teaching.

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#### RESUMEN

El manuscrito que se presenta tiene como objetivo alentar la reflexión acerca de las prácticas educativas desplegadas en contextos formales e informales. En aras de afrontar las necesidades de la educación postpandemia, se contrastan las nuevas formas de educación expandida, invisible y ubicua. Este artículo pretende promover un debate e intercambio de saberes, prácticas y criterios pedagógicos que posibilitarían la adquisición de conocimientos emergentes. Se toman en consideración los factores que enriquecen la calidad del vínculo construido entre el educador y los educandos a partir de una relación dialógica, dinámica y abierta. Los resultados soportan la importancia de favorecer la integración de las experiencias y saberes previos, así como la apertura al aprendizaje en espacios no convencionales y fuera del horario escolar. Finalmente, se ofrecen lineamientos para el estudio y diseño futuros de las nuevas formas de expansión de la educación, como vía para fortalecer políticas y prácticas en los diferentes contextos.

**Palabras clave:** aprendizaje, comunicación, educación, educación extensiva, enseñanza.

**Clasificación JEL:** I0, I21, O53

## INTRODUCTION

For more than 10 years now, communication flows have frequently overwhelmed the former privileged institutions for the preservation and production of knowledge (Sun et al., 2020). Schools, universities, libraries, and museums have been progressively displaced, stressed, or surpassed by other emerging institutions, but also as a result of the increasing digitalization of information and the rise of virtual platforms (Knudsen, 2020; Schneider et al., 2021; Williamson, 2020).

Today, traditional institutions, especially universities, lack a hermetic and unique control over information. Additionally, there is a dispersed, fragmented, and varied educational system in which information and communication inputs are no longer artificially concentrated or concentrated in a few specialists (Rahman, 2019; Southerton & Clark, 2023). Expanded education is based on the notion that it exceeds, surpasses, and transgresses academic boundaries, develops in new techno-communicative scenarios and appropriately incorporates the challenges these scenarios pose (Mayor, 2020).



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In light of this panorama, new digital citizenships and identities are emerging, leading to growing interest in fostering the development of citizens willing to accept the challenges inherent in a complex and heterogeneous society (Lauricella et al., 2020; Martin et al., 2020; Masiero & Bailur, 2021). Among the most recognized movements in this field are the rise of Artificial Intelligence and lifelong learning in the digital age, which demand critical thinking, autonomy, and creativity (Dai et al., 2023; Michel-Villarreal et al., 2023; Sandoval et al., 2020).

In this regard, the literature analysis allows us to establish that communication and education face at least three important challenges. First, the growing relevance of the socio-emotional dimension in learning processes implies the emergence and consolidation of dynamics of active participation and interaction, not always following reflexive and conscious rules (Kaspar & Massey, 2023; Mahoney et al., 2021). On the contrary, they are recursively self-organized according to the historical-cultural and emotional demands present inside and outside the classroom.

Second, attention to economic and political interests—in both education and communication—implies understanding that there are tacit interests that need to be critically examined since multiple online spaces promote contemporary forms of exploitation and subordination, which coexist with practices of resistance and autonomy (Rovira & van Hauwaert, 2020). The analysis of these dynamics and power structures transferred to virtual environments constitutes one of the main challenges for adapting towards peace, sustainability, and the development of global citizenship (Chiba et al., 2021; Ghosn-Chelala, 2020; Santos-Martínez, 2023; Winters et al., 2020).

Third, social mobilization—as a field of dispute in education and communication—suggests that the current media ecosystem offers citizens opportunities for political and social participation (Schofer et al., 2021). Regarding the second point, it can be observed that the active presence of various humanitarian, social, or cultural causes, which mobilize through digital networks to achieve their goals, is more frequent.

In this sense, educommunication cannot be separated from emotional education, so that citizenship is not represented as socially engaged by the mere appearance of a potentially participatory technological ecosystem (Belim et al., 2024; Musicco et al., 2023). This idea suggests the need to understand the factors that motivate the mobilization of groups and collectives, which in turn requires this type of education. Therefore, it is necessary to incorporate the diverse universe of languages, narratives, and new grammars that are produced and reproduced beyond the limits defined in traditional spaces, such as the classroom or the predefined school schedule, as both do not always meet the educational and personal needs of students in the face of these new dynamics.

Within this framework, the field of educommunication emerges as a favorable environment for building participation, dialogue, and the ongoing exchange of knowledge (Aso et al., 2024). This is where individuals play a fundamental role, as their autonomy is shaped in relation to others. Therefore, educommunication would promote and strengthen political and social movements in Latin America, based on a heterogeneous, plural, and dynamic approach.

In light of the assessments offered, this article seeks to reflect on educational practices deployed in formal and informal contexts, as well as their triangulation with new forms of expanded, invisible, and ubiquitous education. The epistemological intention is to rethink the teaching and learning processes organized in post-pandemic academic classrooms, primarily with regard to pedagogical practices, the most relevant results obtained, and the trends developed. As a result, a narrative and thematic review study was conducted.

## RESULTS

### Formal, non-formal and informal education

First, education constitutes a process of continuous transfer occurring at the individual, group, and social levels. Furthermore, as a process, education is contained within legal relationships that establish rights and responsibilities and is constitutionally protected as a means to promote the integral development of individuals and their well-being. Different forms of learning are conceptualized through regulations, including:

- Formal education, which aims to transmit knowledge, develop skills, and foster individual axiological development throughout life. This is divided into educational cycles or levels, grade levels, or other classifications.
- Non-formal education, which refers to any activity that takes place outside the institutional framework or beyond traditional schooling processes. In the Colombian case, Law 1064 of 2006 established this type

of education as part of the national education service, which makes it eligible for various supports and legal guarantees (Law 1064, 2006). This type of educational practice seeks to complement formal education and strengthen the participation of extracurricular programs in meeting people's educational needs.

- Informal education, which involves all free and spontaneous knowledge and learning acquired through the exchange of knowledge from different people, institutions, media, and interaction spaces in which the individual is inserted.

In relation to higher education, this level of training is subject to structural characteristics that point to its variability. This is because it is mediated by the laws of a context or territory that can be public or private and that, in any case, seeks to maintain or improve the status quo of the social context.

In addition, this level is normally associated with training people to competently exercise a profession and, from it, contribute to social development, innovation, and the solution of problems related to its object. These ideas point out the creative importance of the educated being who puts social responsibility first in order to create assertively for the common good. Therefore, it is important to deduce that a country's development possibilities are centered on the promotion of higher education, its coverage, and its educational quality.

However, technological participation in the information and communication processes involved in the appropriation of knowledge at a higher level cannot be ignored. This entails various dilemmas between the colonial and the decolonial, between the conception of the humanist university and the technological-business conception based on indicators and results, and between ideas associated with development and evolution (Dutta et al., 2022). Therefore, it can be affirmed that these new scenarios and trends emphasize the importance of ancestral knowledge and the emergence of new currents of thought that are not always addressed or recognized formally but that are relevant from an experiential and life perspective, as they represent alternative and valuable worldviews.

### **Expanded education**

The concept of expanded education originates from the awareness that school programs and their socialization proposals do not determine learning needs. From this perspective, everyday life and the sociocultural spaces that co-produce in collaboration with others are relevant sources of information and knowledge that, although alternative, are no less valuable or communicatively significant and developmental. Furthermore, the notions behind the concept are not limited to pointing out the possibilities of leveraging social life and its spaces as teaching and learning media but rather suggest that traditional programs and curricula should recognize and incorporate them. This is without losing the critical stance that sustains expanded education as a framework for interpretation.

These ideas point to the use of everyday tools for autonomous learning among peers on social networks, online games, forums, or alternative spaces. Specifically, these spaces are where information and media literacy processes occur, where cognitive and affective interests are explored and constructed, and where new skills are incorporated from playful or seemingly hedonistic approaches, but they also mediate the collaborative production of learning (Green & Chewning, 2020; Nogales-Bocio, 2023; Sample, 2020).

Representing everyday spaces as learning classrooms requires rethinking how the pedagogical processes that support schooling are designed and what appropriate ways would be to transform the daily use of technological resources and virtual environments, in order to promote the realization of their educational and developmental potential (Mirra et al., 2022).

Regarding its theoretical roots and epistemological postulates, expanded education is linked to various models and proposals, especially those concerning the exponential development of digital technologies and the impact generated on fundamental educational issues. Therefore, critical categories in contemporary educational discourse, such as participation, dialogue, and social learning, as well as other issues of vital importance in the construction of new citizenships, are examined through this lens.

Ultimately, the goal is for students to understand their environment in a didactic manner and deconstruct traditional survivalism to promote changes in their approach to daily life. In the new practices of expanded education, individuals reference and learn from their experiences, both individually, in the daily activities of their environment and collectively, by exposing them to situations that require implementing any learned theory or practice in their personal environment with their peers. This becomes a meaningful process of being and doing in order to know how to do.

## Invisible education and its relationship with ubiquitous education

Another important dimension when considering ways to promote new learning in in-person, virtual, and blended environments is invisible education. This classification responds to the need to conceptualize teaching and learning processes that do not occur in a predesigned manner, at least in the organizational sense of traditional education. In this way, extra-institutional links are established based on shared knowledge in diverse areas of life, generating new, enriched knowledge that is symbolically relevant to the people who generated it by forming their own learning community.

Based on these premises, it is possible to identify how this co-creation of knowledge reconfigures the identity of each subject, not only from the point of view of self-characterization and differentiation from others but also through the relationship with the meaning of life, life project, and worldview. Thus, invisible education, rather than transmitting or transferring knowledge selected a priori by external social agents, promotes an essentially inductive and largely community-based model, oriented toward self-determined gaps and needs.

Currently, this approach has gained momentum, especially as a result of the introduction of ICTs into people's daily lives, new perspectives on how education is delivered, and the multiple access platforms (Martzoukou et al., 2020). In this sense, the concept of ubiquitous learning—that is, through wireless connectivity and technology in general—leads to the blurring of old physical categories (space-time) and their transformation into completely different and diffuse meanings in virtual and/or remote realities (Hoi, 2020; Parra-González et al., 2020; Zhang and Zou, 2022).

These technological and educational aspects encompass the possibility for each person to adapt to their environments in relation to their needs and learn from them (Aljawarneh, 2020; Sumardi et al., 2020). In the technological era, the importance of students being able to learn and plan their future learning in a self-taught manner grows. However, this involves adjusting perspective to one's own needs, acting autonomously and inquiringly, and transcending the mechanical nature of information gathering to incorporate critical processing.

From the above, it can be deduced that learning is a continuous process that intertwines past, present, and future and transcends the academic or instructional sphere. This reinforces the need to prepare for life in a dignified and socially responsible manner. This type of learning does not seek to solve the current problems identified and offered by education through its formal forms of introduction. It is a pretext to seek new forms of learning that actively utilize prior knowledge, skills, and individual competencies.

From this perspective, ICTs become invisible due to inadequate appropriation processes and underutilization of technological resources, which are not always incorporated into everyday dynamics to generate new forms of teaching. In this regard, from the perspective of invisible education, technology is no longer the sole means of teaching but rather an interlocutor through which knowledge is shared and life skills are also reinforced, even when they are often not assessed or considered in formal education.

This depreciation of digital skills can be fueled by certain school practices that make the learning obtained through knowledge exchange invisible. In the classroom, teachers become replicators of information, limit debate, and fail to promote discussion as a valid process for producing knowledge. While some authors and studies seek to refute this traditional and transferential approach, educational systems must also undergo legal and cultural transformations to gradually reduce the reproduction of these limitations through standardized testing, the implementation of outdated curricula, and the narrowing of the relationship between learning and future life.

## Educommunication

When analyzing the epistemological links between communication and education, it is difficult to establish a clear hierarchy, and different ways of understanding their relationship can be observed. The most basic way to represent this relationship is based on the traditional preponderance of education and communication's vehicular or mediating nature (Lago et al., 2020). In these cases, communication is understood as an instrument of transmission and facilitation of the achievement of the former's objectives.

In this sense, education is a process that involves multiple interactions, and its educational potential will grow as it becomes more collaborative, dynamic, and based on the interaction of knowledge, not just academic knowledge (Palacios-Esparza et al., 2024). However, establishing this premise requires an active pedagogy that promotes learning by generating experiences and disrupting traditional patterns. Among the most common strategies are

field trips, observations, and inquiries into the surrounding social context, as well as the democratization of this emerging knowledge through communication channels such as school newspapers and school or institutional radio. Furthermore, information literacy is developed through a critical praxis that is not limited to establishing predefined outcomes as final results but rather uses reflection as a mediating tool for technology-based learning (Albardia et al., 2023).

In these media, students become communicators who project their message socially, generate exchanges, and acquire awareness of their own knowledge. In this way, rather than passively consuming media and information, a gradual transition toward critical consumption and conscious participation occurs so that access to media is oriented toward understanding changes in educational, social, economic, and historical-cultural practices.

## DISCUSSION

The analysis suggests that the functioning of schools and universities is rooted in playful teaching dynamics and educational philosophies from the last century (Anderson, 2020; Ifinedo et al., 2020). In these conceptions, the introduction of technology responds to a mechanical or adaptive exercise that distorts cultural, social, and artistic spaces as areas of scientific teaching where interaction promotes continuous learning.

This traditional way of conceiving teaching and learning creates the need to develop educational-communicative models based on dialogue and participation among all stakeholders involved in the educational process, thereby transitioning from an information society to a knowledge society with a sense of community and resolve. In this context, educommunication and invisible or ubiquitous education gain strength in the pursuit of educational innovation, especially with regard to the integration of new technologies into the educational process (Jiménez-Becerra & Segovia-Cifuentes, 2020; Yilmaz & Karaoglan, 2023).

The fundamental notions of this approach refer to the desire for students and teachers to generate new channels of knowledge based on a pedagogy that promotes interaction and the exchange of information within an open pedagogical practice, generating ideas for sharing and creating knowledge in collaborative and social contexts (Gil & Marzal-Felici, 2023). One of the main problems with integration proposals is that, at the pedagogical level, they tend to be theoretically and procedurally anchored in the classroom. Therefore, new educational practices are currently needed that are not limited to the classroom as a single space.

Learning outside formal education institutions facilitates the combination of formal education processes with the experiences of other educational and social agents who preserve, generate, and disseminate knowledge outside of traditional education systems. Based on these analyses, the focus should be on continuous or lifelong learning, in which interaction and knowledge exchange are seen as another way of acquiring knowledge. Under this premise, individuals learn from multiple sources; they exchange knowledge and experiences with others in diverse environments, generating self-organizationally fed-back knowledge.

In connection with the above, training in the basic areas of knowledge indicates a concrete process in the individual's perception of the self as a figure of learning and interaction with the environment. Under this approach, students strengthen their knowledge of the world and transfer it to a school or pedagogical setting. This entails legitimizing lifelong learning processes that make informal sources invisible, instead embracing them as valid teaching-learning spaces conducive to developing personal and professional skills.

Thus, learning practices under expanded education draw on some elements inherent to non-formal and informal education (Souto-Otero, 2021). In addition to what can traditionally be defined as "learning," this conception of the educational process is informed by digital culture, the diversity of knowledge and experiences, the integration of disciplinary positions, and the very act of sharing. This approach reconfigures the traditional categories of "space" and "time," which are culturally and structurally transgressed by the direct intervention of ICTs, democratizing digital access and belonging (Akour & Alenezi, 2022; Antonopoulou et al., 2023).

Under this approach, the boundaries between school and life knowledge are not skewed by what is defined as such in schools but rather are nourished, at least initially, by the massive amount of information provided by the Internet and the use of digital devices. Although these devices still represent socioeconomic differences between social strata and are configured as networks of inequalities mediated by technology, the digital divide tends to be attenuated by the widespread use of free or open-source digital products (social media, the Internet, apps, online games, among others).



Everyday knowledge also plays a role in the collective technological culture, with diverse implications for the teaching and learning process (Deroncele-Acosta et al., 2023; Fawns, 2022). One example is the emergence of new reading and writing codes, as well as hypertexts that are increasingly understandable to everyone and generate new forms of reading or meta-reading that propose to demonstrate knowledge through different media such as images, interfaces, graphics, and other media elements. This reflects a concern for creating digital awareness and empowering citizens in tele-communicative assertiveness, which exposes technology as proof of humankind's transformative power.

Expanded education as a promising area for higher education is based on the fact that technology and the use of prior knowledge generate a greater internalization process of what is taught (Castro et al., 2020). Achieving these transformations demands a cultural transformation in which knowledge is not separated or categorized in a pyramidal manner through the free and subjective association of learning and concepts in pursuit of a cognitive goal that does not divide formal learning from informal learning.

However, what has been a premise of the analysis is reiterated at this point: organizational and cultural change must promote total learning, in different times and spaces. Likewise, it must reevaluate structured and pigeonholed curricula or study plans and facilitate their promotion of comprehensive training where all knowledge is relevant within the training process (Iivari et al., 2020; Lacka et al., 2021; Núñez-Canal et al., 2022).

With this premise, it can be identified that learning manifests itself in the different contexts in which a subject develops, thanks to their propensity to learn (Sandoval-Obando & Calvo, 2022). For example, art can traverse knowledge sensibly and practically without belonging to a specific scientific or other field of knowledge (Jiawei & Mokmin, 2023). In other words, alternative symbolic practices offer the possibility of representing sensations, knowledge, and thoughts and creating new ways to express what one wishes to communicate.

Consequently, it is inferred that subjective construction must interact with the models established in formal education, which must be governed by a structure based on elements such as curricula, conceptual structures, and pedagogical approaches. Additionally, each specific form of knowledge, nuanced by disciplinary, academic, and institutional relationships, guides teaching and learning in a specific direction.

This type of formal education generates learning generated in a vertical manner while ignoring, censoring, or dismissing others developed naturally in society. From this perspective, expanded education can be considered to broaden formal education's horizons by learning both inside and outside the classroom. Hence, this new approach is generated naturally and freely, without hierarchies, linearity, or structured constructs, although it does not ignore or invalidate traditional education. Ultimately, beyond the limits established by the transfer approach, knowledge can also be acquired and generated in such a way that it is the student who appropriates the learning based on the association of knowledge, regardless of its origin.

## CONCLUSIONS

The results of the study suggest that the adoption of ubiquitous education appears to be the fundamental way to keep up with the dizzying pace of the epistemological transition facing higher education in the post-pandemic context, not only at the technological level but also in the global educational, social, economic, and historical-cultural paradigms. Both in the pedagogical practice of teachers and in students' self-learning, the tools of ubiquitous education, when conceived as mediators of interactive processes, promote learning with the benefits of greater flexibility, speed, and personalization.

Furthermore, edcommunication is a creative and regenerative act, a constant construction-deconstruction-reconstruction of what is known and what is learned. Ultimately, it opens a path of possibilities for deploying a critical pedagogy that enriches educational agents on the path to the necessary transformation of the representation of educational processes and the cultures that support them.

The novelty brought by expanded education favors the generation of knowledge and learning different from that predetermined by schooling processes, much of which is convenient for institutional structuralism. However, it is important to ask whether formal education has the capacity to prohibit students from "receiving all types of learning." That is, in formal education, although there are limitations such as the time to develop an idea and the space where that knowledge is produced, didactic and experimental mechanisms are devised that lead both students and teachers to experience other, less repetitive experiences.

The creation of new pedagogical strategies viewed through the practices of expanded education can propose free and emancipated learning for university education, generating areas of unconventional knowledge or opening up curricula, such as creative laboratories, incubators, social innovation processes, think tanks, and artistic experiences, among other activities; which, together, result from collective and cultural encounters that aim to foster knowledge, almost from a secondary perspective. This leaves the student as the main actor of his learning, taking every opportunity for knowledge as a learning process for his personal and cognitive growth.

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