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Perspectives of ubiquitous learning in educational contexts

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Abstract

Understand how ubiquitous learning occurs in educational contexts from the perspectives of public sector graduates in education, describe and analyze the information observed and recordedduring the years 2020-2021. Qualitative research with a digital ethnographic approach was proposed with categories such as ubiquity, experiences and experiences. The interpretation found relates how was the use of mobile devices and the use of the WhatsApp app in learning and teaching processes from adaptability and self-learning.

Keywords: Ubiquitous ecologies, social networks, virtuality, ubiquitous learning.

1. INTRODUCTION

In a context flooded with technological and industrial revolution,educating is art focused on interpretations, reflections and claims within contextual transformations of a certain place. In practice, a subject can actively participate in projections of the future of education,but it is a complex and dynamic vision that involves the perception of humanity in the knowledge of how to illustrate and train for something specific.

It is a fact that social, family and educational realities have changed in their core of conformation because the immersion of technology is part of everyday life. The National Digital Skills Plan and strategic agenda for the year 2030 of Spain, in its European Framework for digital teaching competence (Redecker & Punie, 2020), mention that these tools are business opportunities for accessible forms and, in turn, respond to information and global challenges withinor a territory.

This study focused on understanding ubiquitous learning in post-pandemic educational contexts in secondary education in Colombia. In short, it is to describe those perspectives on how ubiquitous learning occurred and whatlearning outcomes were developed inside and outside the classroom. However, the problem is directly linked to digital divides, limiting quality learning outcomes in education and the adaptability of technologyin Colombian households. Para (Liccioni, 2022) indicates that technology provides a new way to enter homes and make academia work with online education.

By pointing out ubiquitous learning as interactiveclassrooms taking as reference platforms such as Moodle, Edmodo and Google-Classroom, storage spaces and shared editing such as Google Drive, Pinterest, Isuu, as well as social networks such as Facebook, Twitter, Linkedin, YouTube and Instagram emphasizing I went to the constant use of these, resources that are transformative from social cognitive challenges to

generate expanded learning (Díez-Gutiérrez & Díaz-Nafría, 2018). This implies that ubiquitous learning has characteristics and is linked to the flipped classroom, assuming that this learning is everywhere and at any time (Burgues et al., 2017). Stating that (Burbules, 2012) notes that "the ability to access information anywhere or anytime, peer interaction and expert scholars and structured learning opportunities from a variety of sources (p. 4).

One of the relevant aspects are the changes in society and daily life as (Báez & Clunie, 2019) specifies that "the evolution of Information and Communication Technologies has integrated mobile and intelligent devices for thedevelopment of activities in different areas: financial, environmental, industry and health" (p. 36). In that sense, it is not only integrated into the education sector but also into other areas that are functional for globalization and data management.

Under this signal,technology is going to rise, therefore, it becomes indispensable for global citizenship, to emphasize how ubiquity and learning outcomes occur in secondary education, assuming that, not all digital tools are obtained, thisdoes not guarantee that learning is optimal within the development of flexible and integral teaching processes.

It was evident that students were the ones who immigrated to the use of technology due to the Covid-19 pandemic, (Sevill ano,2020) was framed in recognizing virtual teaching, but above all in digital didactic competence, transforming society into digital. Also, (Peña-Azpiri & Escudero-Nahón, 2020) pointed out that ubiquitous learning has allowed greater dynamics between teachers and students thanks to the potential for interaction and feedback in real time (p. 192). This instantaneous communication occurs through mobile devices because (Specht et al., 2013) recognizes that this is a useful resourceduring the student's learning process, "mobile devices not only favor interaction with people, they also favor the scaffolding of ubiquitous learning ecologies with physical objects with a combination of content and the p Redisposition to learn in the student, are key so that he can create learning ecologies" (p. 31).

On the other hand, for (Sevillano, 2020) the usability of mobile devices are the means to facilitate learning as well as digitalizar contents and apply strategies in which it is evidenced in the time and places of action taking as a risk that this has caused traffic accidents or in the environment of family life interrupted by the influence it has had within of an evolutionary dynamism that has been presented in the educational field with new developments in hardware and software (p. 76-77). The characteristics of innovation is one of the opportunities that opens up to the service of people using the web which, in turn, is available the Wi-Fi connection that offers interaction (García et al., 2022). And, (Rodríguez, 2022) emphasizes that "education does not stop and mobile learning is an example of this, it is linked to any subject continuously and quickly in a short space and time" (p. 5). From this perspective (Kozma, 1991) he states that "multimedia technology is a parallel of mental models and associations are formed between several ideas building meaning from relationships" (p. 16).

In this sense, education is in a constant battle of adjustments and adaptations to diverse contexts (Gómez, 2020; Urbina & Pérez, 2020), according to (Panqueva, 2013) is one of those that mentions two aspects to take into account when questioning this sector; educating for change focused on diverse environments and interactive ubiquitous learning and excellence as proposals of wisdom to train individuals with technological and scientific qualification. Thus posing three strategias to rethink education; the first is access and use, of knowledge creation, the second is the process of solving problems and conflicts and the third is the ability to listen and communicate among others, participatory learning, nential andexperiential (p. 4-5).

2. MATERIALS AND METHODS

The following study was carried out at the El Rodeo Educational Institution of the public sector, with approximately a population of 1856 students between preschool, primary, secondary and technical media. From the registration and systematization of the information with the instrument of the interview (focus group) with the

technique of script of questions (16 questions) applying an intercollation to validate it and the registration of (160) screenshots and analysis of the mismo (Vanegas, Gamboa and Gómez, 2022). The key informants were 16 in total, specifically graduates of the pandemic years, that is, 2020-2021, the challenge of recognizing the perspectives we have on ubiquitous learning during the years of schooling they experienced during Covid-19 at home. The most appropriate route is qualitative by (Hernández-Sampiere & Mendoza, 2018) express the discovery of agreements, events and events in which there is a depth in interpretation of details and experiences (p. 7) and with an ethnographic method according to (Hine, 2004) expresses that the ethnography of the Internet can observe in detail the ways in which the use of a technology is experienced in such a way that it maintains an interest Specialfor what the subjects do using technology and from this action cyberspace is interpreted in what is done, why and at what time. Affirming, (Ruiz & Aguirre, 2015) who argued that:

The educational field from the perspective buynsiva phenomenological virtual ethnography is appropriate and very timely because it helps to understand from the vision of the participants how they live their teaching-learning processes and how they experience interactions between peers and withthe deceased mediated by technology. (p. 338)

3. RESULTS

3.1. Perspectives and experiences of ubiquitous learning in secondary education

This data collection took place at the end of 2020 and culminated in February 2022, this allowed that, when collecting the data and information given by the graduates, we proceeded to interpret them focusing on categories such as ubiquity, perspectives and experiences.

The interpretation made by the researchers found that during the years 2020 and 2021 the information provided was that during the two years of schooling the app with the highest use was Whatsapp, emphasizing the significance within the learning process inside and outside the classroom in their school environment as the family environment. It should be noted that although they met in the tenth and eleventh years, the process was surprising at the beginning but the adaptation was gradually made in the areas. The first one that passed from asynchronous to synchronous was the area of Spanish, and after that of mathematics, ending with social sciences, natural sciences and English. From the criteria of the selected population they argued that all the proposals were necessary and by choosing to be in live class because this helped them to haveclarity about xplications, suggestions and create study habits. It was found that the platforms that teachers and students used during these years were google meet and zoom. Already having a sketch of information the answers were approved to the novelty of each teacher to impart or guide a process in each area of work.

3.2. Interpretations of the learning process in secondary education according to key informants

- At the end of this study and systematize the information, specific aspects experienced from the perspective of the ethnographic method and the perspective of the graduates were recorded.

- The pandemic produced drastic changes in the conception of teaching and learning, specifically, to teachers and their reinvention with flexible, digital and innovative methodologies within the dimensions of knowing – knowing, knowing – doing, knowing – living together and knowing how to be within the pedogogy.

- The perspectives, experiences, learning processes and ubiquity in secondary education led to focus on several situations that emerged from a vulnerable sector, the little constant connectivity and the lack of mobile devices.

- The student is highlighted for his effortsduring the two years of schooling adapting to virtual modality.

- The teaching and learning processes experienced is like a metamorphosis of how students, parents, teachers and the entire educational community appropriated digital skills

and digital content, facilitating continuity in the training of each student.

- The learning process was given more by self-learning, in other words, the student had autonomy and individual responsibilitiesto maintain themselves during the health emergency.

- The use of social networks made student life maintain close communication, prioritizing interactivity between peers.

- Social networks had the greatest boom and was a toolof help and support for those who guided a class as for those who received it.

- The external learning results in terms of the tests know ICFES took possession of the institution in category A, at regional and national level while in 2021 it descended to B lowering that quality indicator.

- The internal learning outcomes have to do with the objectives set and achieved for each year of schooling and for this the graduates and students maintained a virtal interactivity favoring communication, flexibility in the teaching process.

- The assertive communication between the sender and recipient must be interactive, respectful and dialogic, no discrepancy was presented, in the analysis of the virtual classes, the virtual didactics was more appropriate for the teacher and persuasive for the student.

- Ubiquitous learning should have had minimal tools to ensure immediate connection (Ortiz, 2022). It must be recognized that of 106 graduating students, all acquired mobile devices, but Wi-Fi connectivity was not favorable for a vulnerable sector where the institution is located.

- Ubiquitous learning was an active and participatory protagonist experiencing adaptive dynamics for Colombian households.

- The graduates of the years 2020 and 2021 experienced unforgettable feats and survivors that have remained in their memories in this universe.

- For the study process in teaching and learning, essential aspects such as time, space, virtual environments or virtual environments must be taken into account so that the learning results are constant and dynamic.

- In general, these were the approximations that were made from the interpretation of the perspectives, although the digital gaps are the problem (Velázquez, 2022), this situation was evidenced in the population under study, since the educational environment lacks resources and infrastructure does not have the capacity ad and Wifi coverage that allows any member of the community to have a stable internet connection.

4. CONCLUSIONS

By way of conclusion, ubiquitous learning is a pioneer in Colombian education because it adapts very quickly considering that the use of the WhatsApp App is what each graduate counted on to receive information and send. The methodology of the teacher makes the difference in a classroom and bringing their knowledge through the use of this App, was significant to give continuity to the training of each student. This App is a technological support tool because it is a learning that occurs at all times.

There are significant qualities that are acquired during the perception of diversity, will, empathy, collaboration and solidarity not only for one area but all those related. Education follows a dynamism and reformulating andin rethinking an education and the procedural, the central axis of overcoming and guaranteeing a progressive, experimental and emotional education was to apply ubiquitous learning gradually, from the voices of the graduates the ubiquitous learning was adaptiveor, from the perspective of the researchers is to envision in possibilities of social transformations, The breaking of barriers and digital gaps beyond school schooling is an opportunity to find elements and evidentiary versions thatlead to transmuting the classroom into possibilities mediated with ubiquitous learning.

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