RESEARCH ARTICLE

Video Calls in High School During Confinement by Covid-19

Videollamadas en el bachillerato durante el confinamiento por Covid-19

Videochamadas na escola durante o bloqueio do Covid-19

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ABSTRACT

A nine-month study at Mexican high school campuses is presented. The research aimed to understand how video calls contributed to educate high school students throughout the SARS-CoV-2 confinement period in 2020. A qualitative approach methodology was followed, with a Constructivist Grounded Theory design. The results of the analysis procedure led to theorize about different processes carried out, accounting for not only positive but also negative particularities. The video calls contributed effectively to the educational experience of the adolescents, because teaching strategies were encouraged to promote both meaningful learning and the development of competencies; additionally, most of the pedagogues put humanism into action through synchronous interaction between students and teachers, associated with positive emotions reflected in the feelings of the young people. However, at the same time, aspects were discovered which had a negative impact, the main ones being socioeconomic disadvantages, health, and technical difficulties.

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Conflict of interest:

The authors declare that they have no conflict of interest.

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RESUMEN

Se presenta un estudio con una duración de nueve meses en planteles mexicanos de nivel medio superior. La investigación tuvo el objetivo de comprender el modo en que las videollamadas contribuyeron a formar estudiantes de bachillerato a lo largo del periodo de confinamiento por el SARS-CoV-2 en el año 2020. Se siguió una metodología de enfoque cualitativo, con un diseño de Teoría Fundamentada Constructivista. Los resultados del procedimiento de análisis conllevaron a teorizar sobre diferentes procesos llevados a cabo, dando cuenta de particularidades no solo positivas sino también negativas. Las videollamadas aportaron de manera efectiva en la experiencia educativa de los adolescentes, porque se fomentaron estrategias de enseñanza para promover tanto un aprendizaje significativo como un desarrollo de competencias; adicionalmente, en su mayoría, los pedagogos pusieron en acción el humanismo mediante una interacción síncrona entre discentes y docentes, asociado con emociones positivas reflejadas en el sentir de los jóvenes. No obstante, a la par se descubrieron aspectos los cuales impactaron negativamente, los principales fueron desventajas socioeconómicas, de salud, y dificultades técnicas.

RESUMO

É apresentado um estudo com duração de nove meses em escolas mexicanas de nível médio. O objetivo da pesquisa foi compreender de que forma as videochamadas contribuíram para a formação de alunos do ensino médio ao longo do período de confinamento pelo SARS-CoV-2 em 2020. Foi seguida uma metodologia de abordagem qualitativa, com projeto de Teoria Fundamentada Construtivista. Os resultados do procedimento de análise levaram à teorização sobre os diversos processos realizados, levando em conta não só particularidades positivas, mas também negativas. videochamadas contribuíram efetivamente para a experiência educacional dos adolescentes, porque estratégias de ensino foram promovidas para promover a aprendizagem significativa e o desenvolvimento de habilidades; além disso, em sua maioria, os pedagogos colocam em ação o humanismo por meio de uma interação sincrônica entre alunos e professores, associada a emoções positivas refletidas nos sentimentos dos jovens. No entanto, ao mesmo tempo, foram descobertos aspeitos que impactaram negativamente, sendo os principais as desvantagens socioeconômicas, de saúde e as dificuldades técnicas.

Introduction

The Mexican State is experiencing challenges that lead the educational system to mobilize all the possibilities or intellectual, material, or technological resources in the hands of key actors, teachers, students, and parents, in order to guarantee the right to education, as Gagliardi (2020) reiterates in his reflection. The topic of video calls is of transcendental importance, since, in view of the extended period of confinement due to SARS-CoV-2, this activity was carried out as a frequent practice, in this case reviewing the case of its application as an educational social process in the high school in the state of Sinaloa, Mexico.

On the other hand, it is considered of vital relevance to publish research results that contribute to or complement the state of the art that is in the process of being generated in the face of the coronavirus pandemic. It is essential that the scientific literature be promoted, but at the same time be vast, since humanity is not exempt from experiencing other emerging social situations that force countries to enter into a period of forced home study. In this way, pedagogues will have access to educational experiences, their results and effects on educational communities.

The limits imposed on this study are mainly due to the limited resources available to carry out the research. For this reason, the cases described are taken from the context of the researcher's work, due to the ease of access and management of resources available at the local level.

Distance Modality

In recent years, the distance modality has been characterized as a collection of virtual training proposals (Barberà and Badia, 2005), but also by a physical separation of time and space between members of educational communities. Thus, it involves not only asynchronous but also synchronous interaction through different technological means to provide accompaniment in the teaching-learning process (Roberts, 2009 and García, 2018).

The birth of both the computer and the digital era are determining variables in distance education environments. The third period of the industrial revolution marked the beginning of an abrupt evolution in social progress (Schwab, 2016). To begin with, the Internet allowed a connection between school and work, where the role of the student at the center of all formative processes would be reiterated (O'Neill et al., 2004 and Zaruma, 2020). Also, at this time, the programmed teaching model proposed by Skinner had a great boom in the educational environment; the role of the educator would emphasize advisory or tutorial teaching activities (Ausubel et al., 1976).

In Skinner's programmed teaching model, the student is perceived as an active subject, i.e., he learns by doing or experimenting. Learning is seen as an aspect that needs to be individualized, measurable, observable, but emphasis is also placed on a gradual approach to transmitting disciplinary content (Gros, 2001).

On the other hand, García (2017) and Bayne et al. (2015) argue that distance education has gained too much ground over face-to-face schemes. In fact, in recent years it has evolved, assuming an educational disruption to embrace other digital spaces such as models through mobile devices (*m-learning*). Among the great characteristics of this modality are the fact that there are no restrictions of space, time, but above all learning rhythms, giving priority to student autonomy. At the same time, students can carry out other activities of a work or family nature, complementing their comprehensive training.

Other studies carried out by García (1985) and García (1997) in relation to educational quality show that the effectiveness of an educational program does not depend on its modality, but rather on the rigor of didactic strategies based on the model proposed in educational institutions. In fact, several studies have shown that there are no significant differences between a distance and face-to-face modality (García, 2017; Carey and Trick, 2013; and Siemens et al., 2015).

There are several reasons why distance education is gaining ground over face-to-face education. Openness is a major advantage, since it is possible to expand the educational offer without geographical restrictions. Also

flexibility is possible, since asynchronous interactivity can be promoted, giving students the opportunity to organize themselves to carry out other personal activities. Other benefits are inclusiveness or democratization, economy, privacy assurance, active learning in multiformats, greater self-monitoring, access to more information, and an ease of editing and dissemination of their assignments (Appana, 2008; Arkorful and Abaidoo, 2015; Carey and Trick, 2013; Guri-Rosenblit, 2009; and Sun et al., 2008).

Educational Paradigms in the Face of the Pandemic

Most western countries have educational models tied to the industrial paradigm. One characteristic of this paradigm is that it resorts to standardization based on generalized norms at all systems and levels, to which members of school communities must conform. For example, the systems have curricula and syllabi, whose rigidity separates subjects disciplinarily, justifying on many occasions an interdisciplinarity that is not very present in their content (Severin, 2017).

The confinement of the coronavirus initiated in 2019 forced educational systems to enter into an "emergent adjustment", as cited by Miguel-Roman, (2020) of face-to-face modalities. Given this scenario, full conviction or democratic decision is required to rethink a true educational strategy or paradigm (Severin, 2017). Such a perspective needs to take into account the feelings of all members of educational communities, since the pandemic period is a problem in which many teachers and students have undergone changes in their lifestyles.

According to Khun (1962), when current theories no longer respond to the needs or problems arising in society, the emergence of a new paradigm is necessary. In this sense, it is vital to carry out research in order to investigate in depth the context of diversity in which we are immersed. As such, education in times of pandemic is an area of concern, where the formation of future professionals, entrepreneurs, workers, and innovators who will strive to continue with technological, social, and industrial progress are in question.

Paradigms such as environmentalism, constructivism, competencies, the critical-social approach, humanism, just to mention a few, should not be discarded in the face of confinement. On the contrary, we should appeal to incorporate the best of the paradigms to provide care to children, young people, or the student population in general in the face of a health crisis that represents a social challenge (Figure 1). Yes to a distance education, yes to an online modality, yes to a face-to-face education, but also yes to any strategy that guarantees a continuity of the formative act of people in favor of individual and social welfare, either through social interaction, observation, stimuli, from nature, or its essence as a human being (Trujillo, 2017).

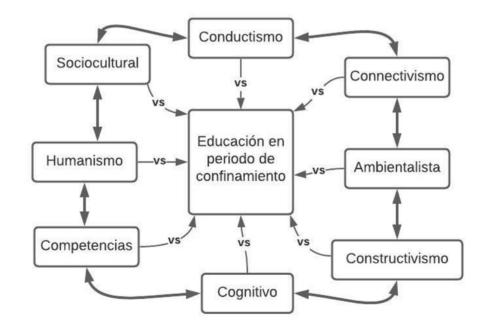


Figure 1. Representation of educational paradigms in the period of confinement.

Author: Own elaboration, based on the data analyzed.

Note. The period of confinement requires the use of any paradigm that will always yield results in favor of the student's formative process, according to his or her needs and learning opportunities.

In Situ Confinement

The tactic of student attention throughout the quarantine period, decreed at the governmental level in March 2020, implied that the subsystems or levels, whose modalities operated under a face-to-face or blended learning scheme, decided to continue with the pedagogical processes from home in a remote style (Valbuena Duarte et al., 2021).

Thus, several actions were implemented to accompany students during the confinement period. Examples that can be provided are online instruction, telephone calls, social networks, educational platforms, or through cell phones (Sánchez et al., 2020). Such tools had already served as mediation since some decades before, but they are still useful as a preponderant pedagogical component (Kaplún, 1998). Just as the Internet has evolved throughout the century, digitally or computer-mediated communication has gone beyond informational horizons, becoming a form of learning (Coverdale-Jones, 2000).

In this sense, synchronous classes or video calls (videoconferencing) have been undertaken within the didactic strategies with the purpose of giving continuity to the development of competencies (Sanz et al., 2020). Videoconferencing is a technological method of synchronous contact, in which participants have the possibility of seeing each other, conversing, and exchanging information according to the program or application used (Roberts, 2009 and Slovák, 2007).

From this problematic delimitation, the object of study is determined as videoconferencing in high school to understand the impact it has on the educational experience of students in the period of confinement by coronavirus. In the same vein, a question used as a research guide arises: how have videoconferences contributed to the educational process of high school students throughout the quarantine? The general objective was to understand how synchronous classes contributed to the formative experience of high school students during the Covid-19 period.

Methodology

The research was framed under the qualitative approach through a methodological design of Constructivist Grounded Theory, developed by Charmaz (2006). The method broadens the horizons of what was initially proposed by Glaser and Strauss (1967), who at the time innovatively presented the Grounded Theory method of empirical format, recovering ground in contributions of science within the interpretative paradigm, built on the roots of thoughts from the Chicago and Colombia schools, as well as the canons of pragmatism and symbolic interactionism.

In this sense, Grounded Theory is influenced by both inductive and abductive reasoning. This makes it possible to generate grounded theories about a phenomenon through the realities or experiences of the subjects of study (Brayant, 2017; Charmaz, 2006; Corbin and Strauss, 2015; and Glaser and Strauss, 1967).

Data were collected from 372 participants from two campuses of the Colegio de Bachilleres del Estado de Sinaloa; 359 students enrolled in three high school campuses; 181 females and 178 males in a range of 16-18 years of age. Also, 13 teachers participated; 8 females and 5 males between the ages of 28-61. The sampling was non-probabilistic-intentional, since the study subjects decided to participate voluntarily, guaranteeing their anonymity. At the same time, a selection of enriching responses was made to account for substantive theory building (Arias, 2012; Cohen et al., 2018; Creswell, 2012; Leavy, 2017; Ñaupas et al., 2014; and Trujillo et al., 2019).

The information analysis was carried out by means of a word processor, in which an initial, focused and axial coding was performed. Additionally, the constant comparison method was put into action, contrasting codes and categories. At the same time, a graphic organizer was used to show the link between the theoretical elements. It is essential to emphasize that theoretical sampling was used in order to strengthen, but at the same time define the limits of the categories and achieve theoretical saturation. Likewise, an abductive logic was used in order to interpret the meanings, realities and experiences of the participants in order to propose a substantive theory.

Finally, as a tradition of the Constructivist Grounded Theory method, a review of the literature and the art in question was made to discuss and contrast the findings with theoretical perspectives and results obtained in other studies within the thematic axis of concern.

Results

The philosophical and scientific bases of symbolic interactionism and pragmatism for knowledge construction and validation, within the methodological framework of Grounded Theory design, allowed us to discover the following theoretical elements that represent the educational social processes carried out through remote classes with high school students (Figure 2).

Interacción sincrona entre actores

Aprendizaje significativo

es parce de Videollamadas en tiempo de confinamiento

Enfoque humanista

Emociones positivas

Confrarestan

Emociones negativas

Emociones negativas

Figure 2. Videocalls and their impact in educational contexts of diversity.

Author: the authors, based on the data analyzed.

Videocalls contribute positively to the educational experience of high school students, promoting teaching activities for meaningful learning and the development of competencies contemplated in the graduate profile. Additionally, most of the pedagogues put into action a humanistic approach, promoting a synchronous interaction between the different actors. In spite of all the positive contributions of videoconferencing, there were aspects that had a negative impact related to socioeconomic and health aspects, as well as technical failures. In addition to this, some teachers maintained a strict style, which was perceived as fostering unsuitable environments, provoking negative emotions towards remote education.

The theoretical categories that were discovered in the process of analyzing the information obtained through the participant observation and the online questionnaires are reflected below; they are organized into positive and negative findings. In the same vein, some textual quotations from the subjects of the study are shared to give an account of the interpretations argued.

Positive Findings. Positive findings are described in the following categories: meaningful learning, synchronous interaction among actors, humanistic approach, and positive emotions.

Meaningful learning. The video calls provided a guideline for the trainees to develop meaningful learning by putting into action different activities as part of the teaching process. In addition, educators were able to cover topics in greater depth, allowing adolescents to achieve a better understanding of the topics addressed and work required for the achievement of desired competencies. Likewise, educators tried to assign tasks that implied acquiring knowledge through problematic situations or by seeking discovery, where the youngsters felt the need to take responsibility for their formative process by managing information independently.

Most of the work is to read or explain. In the case of some subjects like mathematics, we are taught with a blackboard that our teacher bought. Now, it is easier to understand compared to when we used a whiteboard (Student 60).

Teacher 8 commented:

Video calls are fundamental in accompanying students while they study from home, since many of them find it difficult to do their work on their own. By means of videoconferences, presentations can be made establishing links with their interests and previous knowledge, but they are also useful for advising them on research tasks.

Synchronous interaction. The synchronous interaction between teachers and students had a positive impact on the students' learning process. The main reasons were due to the generation of suitable environments, which motivated young people to carry out assigned learning activities at a distance. At the same time, the students had the opportunity to get to know their teachers and classmates, who helped them clarify doubts about the work. On the other hand, adolescents often acknowledged that their health was guaranteed, given that the contact always maintained physical separation, protecting them from the risk of catching coronavirus. See comment below:

With the online classes we learn a lot from the teachers about the topics they leave us with homework, i.e., they explain the contents in detail. Another benefit is that we get to know the teachers and know what some of our classmates are like (Student 301).

Teacher 3 made the following statement:

As much as possible, we try to involve the students during the videoconferences. Sometimes they are self-conscious, but some of them make very enthusiastic and thoughtful comments. There is no doubt that this activity is accepted by some students.

Humanistic approach. Most of the teachers who chose to promote video calls with their groups resorted to a humanistic approach, supporting students in various ways. Mainly, they resorted to replicating face-to-face classes in a distance modality in a synchronous format, through which teachers implemented different types of teaching strategies very similar to those implemented in the school.

In spite of various criticisms of this behavior of the teacher, it could be said that it was a human element added during the confinement during the time of Covid-19. It was an attempt to provide an education at least distant from the one carried out when everything was normal. In contrast, in formal online or virtual modalities, priority is given to an asynchronous work style, requiring greater independence and autonomy of the learner; however, most of the students in this educational context did not have this profile.

On the other hand, the educators tried to conduct the sessions on a flexible schedule, allowing the trainees to have more free time for other personal activities. In addition, it was observed that there was an opportunity to provide highly personalized attention, which was very useful in matters associated with academic tutoring. In this regard, student 253 commented:

I feel safe because I am at home taking classes and learning new things, just as if I were going to face-to-face classes. I am not in danger of someone doing something bad to me on the road or getting sick with the coronavirus.

Participating teacher 12 reported that:

One advantage of video calls is that they can be used to provide personalized attention and advice to students. I have taken advantage of video calls to explain in detail some topics to young people. Mainly, to those who are missing activities.

Positive emotions. The students expressed joy at being able to interact synchronously with their teachers and classmates, especially when the topic or subject was of interest to them. In addition, the educators tried to promote ideal learning climates for the young people, resulting in a feeling of tranquility, as well as a state of security by protecting themselves from SARS-CoV-2 infection.

Another fundamental emotion identified in the data was a sense of freedom of expression, given that moments were sought to develop the communication of ideas according to the topic addressed in online learning sessions. The adolescents also expressed a comfort in carrying out an educational process from home. Likewise, the high school graduates claimed to feel enthusiasm and inspiration during live video classes, recognizing the preparation effort made by the teachers. Student 11 contributed a statement on such details:

One of the positive emotions I feel when I am on the video calls is peace, because we can only listen to the teacher, and we don't hear the noise of the classmates...I also get to feel some freedom when they let us express how we understand what we learned.

Negative findings. The following is a description of the negative aspects reflected in the categories: negative emotions, socioeconomic, health and technical disadvantages, inflexibility, and lower impact on learning.

Negative emotions. There were students who reported feeling stress, sadness, despair, or confusion. Due to a demand from certain teachers, who demanded to keep the cameras on for the purpose of academic work or simply as a requirement for attendance. In addition, the teenagers protested the lack of organized scheduling by the teaching staff for video calls. Other high school students expressed discomfort when their classmates did not follow the teachers' instructions, creating a disruptive learning environment.

Similarly, the students expressed anxiety and discomfort, because some of their friends did not act with maturity during synchronous video sessions, causing annoying noises or performing inappropriate acts. There were even those who perceived a monotonous climate because the real-time classes presented technical problems on many occasions. Additionally, they experienced despair when their classmates did not correspond to the preparation efforts of the pedagogues. Student 1 reflected the above as follows:

There are some video calls that cause me stress. Some teachers don't agree with schedules for the sessions. Then they make us go to other applications because of technical problems, until the videoconference finally takes place. It is very stressful.

Socioeconomic, health, and technical disadvantages. The inequality that exists in Mexico was reflected in the context of the object of study. Quite a few students reported not having sufficient technological infrastructure at home to participate in videoconferencing sessions, excluding them from the educational process. Likewise, there were students with sight problems, who were affected by the long duration of classes, forcing them to keep their eyes fixed in front of a screen, sometimes for hours at a time. In addition, a frequent technology failure was identified, which prevented them from understanding the messages being broadcast. Student 113 expressed the following in this regard:

There are people who do not have internet or any device to connect to the calls. At home I am not allowed to spend too much time on the cell phone, do too much homework or get stressed, because I have vision problems, the maximum magnification, and walking around with it sometimes makes me cry or my eyes burn.

Inflexibility. The video calls had the characteristic of being inflexible in terms of schedule, since this was determined by the teacher without taking the students into account. Some young people reported feeling stress during classes in real time, which did not allow them to learn. Some teachers assumed a strict posture, responding with a negative or indifferent attitude to different particular cases of students who expressed their impossibility or difficulty to be present in videoconferences. A statement about this situation is reflected below:

I wish some teachers were not so demanding and did not leave too much homework, because they leave too much in a single day and they do not know if their students suffer from some kind of illness, whether it is anxiety, depression, stress, and the only thing they achieve with so many activities is to make them explode. They leave more work than when we went to high school in person (Student 3).

Less impact on learning. Some students reported monotony during remote sessions. Unlike when they attended the campus, they did not have a peer physically nearby to communicate with, detracting from peer-to-peer learning. In addition, there were students who indicated that they did not gain any knowledge, which reflected the possibility that there were cases of teachers who did not have sufficient pedagogical-technological skills. In addition, some students emphasized the need for face-to-face interaction with their classmates and educators. Student 38 emphasized the following in this regard:

There are many disadvantages, first of all, because not all of us have a good network connection. Also, the cell phone gets stuck too much, or when they ask: "Do you understand?", we can't say anything, because the video cuts off. Also, we run the risk of damaging our eyes, I say this for me, because now I need glasses for spending so much time in front of a screen. My eyes hurt during videoconferences.

Discussion

The following is a discussion of the background related to the implementation of video calls or videoconferences in educational environments. It is important to note that this activity is located within the framework of distance, online, or remote education. The purpose of analyzing these studies is to contrast the results of the present one, reflecting on how they are similar or how they contribute to knowledge.

The first work to address is that of Sánchez et al. (2020), who collected information through a survey applied to high school, undergraduate and graduate teachers at the National Autonomous University of Mexico (UNAM). Among the notable findings of the instrument administered, it was discovered that educators faced socio-affective and pedagogical-operational organization problems due to large groups, which prevented adequate accompaniment (see also Sieber, 2005 and Taft, 2011).

Respondents reported using social networks and educational platforms for communication purposes. In this regard, Zoom, Google Hangouts, Skype, among others recognized internationally (Zubieta et al., 2012), were software used in the development of video calls for synchronous interaction purposes, where the first one obtained the highest percentage of use. Like the results of the present study, the interpretations of Sánchez et al. (2020) reflected difficulties of both teachers and students when using technological tools or infrastructure. Likewise, it is necessary to remember the feeling of dissatisfaction of the students in this research due to the lack of agreements of the academic team, especially about the schedules for videoconferencing, interpreted as a logistical category by the UNAM researchers. In this regard, the trainees emphasized having suffered socio-affective or health problems.

Durso et al. (2020), carried out a study at the Faculty of Dentistry campus of the National University of La Plata. An educational planning was carried out taking into consideration the use of technology with the aim of promoting comprehensive, critical and creative thinking in problem situations. In this sense, a quantitative approach was followed appealing to a descriptive methodology, so a research strategy with tutoring was used (Pimienta, 2012); basically, it consists of researching under the accompaniment of a tutor.

Among the techniques followed by the experts, the use of Zoom can be appreciated with the purpose of maintaining communication by combining video capsules through the Moodle platform in order to achieve meaningful learning. Additionally, a constructive alignment is identified, seeking a relevant knowledge construction (Biggs, 2006).

Although there were no negative results in the study by Durso et al. (2020), the findings shared are similar to those interpreted in the present study. For example, there were students who were favored by means of video calls, acquiring generic, disciplinary or labor competencies. At the same time, it was appreciated how the materials or methods used contributed to lasting and relevant learning based on quality teaching.

In another work, Gagliardi (2020) shares a reflection on the Argentinean environment, where videoconferencing was also used as a means of contact with students. However, the author recognizes that this kind of activities represent a problem in unequal socioeconomic situations. Firstly,

some type of technological tool of sufficient power is needed to support and operate fluently the institutionally required software programs. Similarly, it is essential to have a wireless internet connection or credit or data on the device. Finally, the students need to know didactically the different digital tools.

Like Gagliardi, Robalino (2020) studied the development of digital skills in the Ecuadorian context. The author found that a large number of students lack technological infrastructure at home. In addition, a lack of teacher training in the use of Learning and Knowledge Technologies (LKT) was reflected, limiting videoconferencing to a replica of the face-to-face classroom scheme. Likewise, the strong need for training to employ on-site TAC, a substantial competency today, was identified (Levano-Francia et al., 2019).

A theoretical reference value is the media richness theory, which argues that complex modes of communication require powerful resources for their realization (Potter, 2004; Short et al., 1976; Treviño et al., 1987). However, the problem sometimes lies in the technological devices, where in many cases young people do not have sufficient technological infrastructure to operate educational platforms or apps optimally. This is reflected when technical difficulties frequently experienced in video calls come to light. Worse still, this is not a problem unique to these contexts; there are others in which the circumstances are repeated (Roberts, 2009).

Another theoretical approach related to online videoclasses considers that media deliberation is influenced more by social norms or habits than by communicative content or any technological factor. According to the social influence model cited in Fulk et al. (1990), the choice of communicative strategies in organizations is not only based on the characteristics of technological resources, but also on past experiences of individuals, a constructivist aspect in accordance with premises proposed by Vigotsky (Vila, 2001) or on the technological environment (Silverstone and Haddon, 1996).

Another interesting study is led by Denstadli et al. (2012). The researchers based their study on a quantitative survey of Norwegian business travelers, comparing a set-up of face-to-face meetings with videoconferences. Although the experts limited themselves to inquiring within a business perspective, one of the points considered salient was how face-to-face or videoconferencing sessions meet slightly different needs. As in the business environment, in the educational context it can be seen how video calls are much more economical for students in terms of travel, time, or risk of vandalism, leading students to prefer this form of interaction to a face-to-face modality; in addition, distractions, noise, or inappropriate behavior of their peers are eliminated.

On the other hand, it is essential to take into account that making video calls is not a pedagogically simple activity. The simple fact of planning and preparing material for the students, as well as planning a concise and coherent speech, is very complex. It requires a great deal of time, even more than in the face-to-face work plan, because the resources to be used, the means of communication and types of evidence to be requested are added, thus, it is a rigorous process of learning and mastery of technological-pedagogical knowledge (Roberts, 2009).

Additionally, the disadvantages pointed out by the adolescents in this study are identified in the exploration of Coverdale-Jones (2000), who identified a loss of personal touch, which sometimes causes the information transmitted through the teacher not to be acquired by the students. This could possibly be caused by a cold climate of unnoticed emotions through a virtual space, hindering a dynamic and close interaction between actors, without forgetting the technical problems that may arise during an online session. In such a way, it is substantial to recognize the importance of emotions in any pedagogical process to be carried out, since the human being is an emotional individual (Anzelin, & Marín-Gutiérrez, 2020).

Conclusions

Video calls are an excellent accompanying strategy within the remote education scheme. However, when implemented in highly diverse educational environments, they prove to be too much of a task.

The plurality of different social contexts makes it impossible for synchronous teaching sessions to be feasible. In this regard, this type of activity could be oriented not precisely as a daily action promoted by educators or the system, but rather as a tactic designed with specific objectives in mind, for example, student follow-up through tutoring or personalized counseling.

These assumptions can only be answered with the continuation of this research, in such a way that the necessary theories and hypotheses are generated to be tested in broad and deep research. In such a case, the success or adaptation of a distance model does not depend entirely on teaching skills, although they are substantial, it also requires a good level of digital literacy on the part of all subjects in the educational environment, their abilities, or skills, as well as their boldness to face problems throughout the process (Gagliardi, 2020).

In this way, certain questions are posed that could serve to give continuity to the object of study investigated in the present and other similar ones. First, in what way does tutorial action through video calls contribute to the training of students, or how do video conferences impact on the follow-up of students with special educational needs? These are just some of the questions that could emerge from scientific communities and researchers interested in remote education and the personalized accompaniment of students with low performance or psychological problems in emerging social situations.

Pedagogical innovation, perseverance, love of art, and the welcoming relationship between teacher and student could represent key points for a methodological-didactic rethinking of education in general. Thinking about what to do after the pandemic, to go back to doing the same thing, is a question that must be posed at the social level, where the educational act is everyone's task.

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