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Approaches On Virtual Education In The Face Of Social Isolation Measures By Covid-19 In A Teacher Training School

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Abstract

Currently virtual education takes on a priority and fundamental role in the face of social isolation measures in higher education institutions that train teachers, where only face-to-face education was authorized, virtuality being a new and novel process in Peru. The research was of a qualitative approach, oriented to the fundamental understanding of phenomena, observable facts and the relationships established between people, it was characterized by being systemic due to its emergent, complex nature, and built in the methodological process of the becoming of the work, the method used was virtual ethnography in education, online research method, participant observation techniques and the interview were used, the instruments used were the in-depth interview adapted through colloquial and recorded dialogues with the informants; The field diary allowed observing and recording the educational practice of the participants through virtuality, there was the participation of 12 informants among managers, teachers and students, the data analysis was done through the Atlas ti 8, the conclusion Principal reports that the approaches of the virtual educational community have been modified over time, becoming a permanent, autonomous and cooperative learning evidenced in coexistence and interaction as a virtual community, highlighting the solidarity and commitment of its members towards virtual education and at a distance.

Keywords. virtual communities, online learning, teacher training

Introduction

The world events that followed the appearance of the COVID-19 in the year 2020 put the focus of the national and international population on health issues. Even though all countries acted with sovereignty, these actions had repercussions in all contexts, mainly in the economic, cultural, political, social, and especially educational aspects (Arboleda & Díaz, 2017; Díaz, Polo, & Contreras, 2017).

UNESCO (2019), Velázquez (2020) and WHO (2020) state that social isolation implies the separation of the population from sick people in order to avoid the spread of an infection, while quarantine refers to the restriction of activities or the separation of people who are not sick, these measures have led to the suspension of classes at all levels and educational modalities, making the implementation of virtual and distance learning an opportunity, Editor Perú (2020), in contrast to this Castillo (2017), tells us that online or virtual education allows the development of training programs using cyberspace as a scenario for teaching and learning, without a face-to-face meeting between teacher and student, providing training spaces and relying on ICT to install a new way of teaching and learning (Sánchez, Villavicencio, & Díaz, 2020).

In this context, the pedagogical institutes and schools of higher education started the virtual classes from the emission of the mentioned legislative decree N° 1495 that establishes "the continuity of the educational service in the institutes and schools of higher education graduates, Editor Perú (2020), encountering a common problem; teachers who did not know about the virtual teaching modality, students with a lack of technology and tools to make virtual classes, public institutes with outdated technology and without virtual platforms, in this respect Baltos, "et al" (2018), indicate that the current training trends and tools, such as distance and technology-based learning, stand out in the knowledge management of virtual education.

With respect to previous works, we can cite More and Velazco (2018) who recognize the experience of the virtual tutor as fundamental in the execution of distance academic programs. Arevalo (2018) states that the application of a teaching model in virtual environments, will achieve that students meet the competencies established in each curricular experience, also indicates that the profile of a teacher in the classroom mode is different from the profile of a teacher in the virtual mode, finally indicates that the profile of the student and also the teacher, are irreplaceable factors of analysis in virtual learning environments to ensure student learning and performance. Pando (2018) affirms that the educational practice of the teacher is strictly related to face-to-face education, and the didactic models of virtual education have been neglected in their practice by most teachers at all educational levels (Hernández-Julio et al., 2020).

In the International Comas, Zhoe, et al (2016) cited in Chung (2011) state that virtual environments became educational scenarios, where real classrooms are simulated, allowing the interatuation of individuals with materials and tools that generate an immersive and innovative experience, While Martinez (2019) states that the perception that students have regarding the use of virtual teaching tools, in which they use audio and video materials, forums and others, increases the development of communication skills, understanding and oral and written production of the English language. Cachari

(2016) highlights the students' perception of the use of technological resources and their acquisition of ICT skills. Férez (2018) states that the classroom extends learning through virtual environments in Ecuadorian higher education institutions, becoming a practical way to contribute to knowledge efficiently, allowing student accessibility from any place, promoting the discussion of topics beyond the classroom schedule. Garcia (2017) tells us that the probity of criteria such as effectiveness, openness and flexibility applied to virtual education, will determine the efficiency and quality of the educational system executed virtually and at a distance.

Serrano, Flores and Lobo (2017) and Allen and Seama (2016) state that the training of teachers in technology is basic for the development of technological skills seeking to improve their performance according to the needs of their students, so online education is fundamental to the long-term strategy of an institution" observing small increases year after year of the handling of ICT.

Diaz and Castro. (2017), Cabero (2010) and Chan (2016) affirm that new information technologies insert new distance education activities, facilitating the formative development and achievement of educational objectives in students. who use all types of devices: portable devices, gadgets, boards, etc.

Area, and Ardeli (2009) state, that e-Learning became fashionable in education and is currently widely used by a minority of experts especially in the application of teaching and learning technologies in educational institutions, Sarcinella (2016) and Rama (2016) state that the new technological paradigm, carried out a diversity of changes in the human race, becoming the axis of the education called "blended learning" or semi-virtual, then transformed into semi-presential models through the incorporation of virtual components such as platforms, digital learning resources and virtual tutors.

Ruiz and Dávila (2016), Iriondo and Gallego (2013) and Serrano "et. al"(2018) state that in the face of technological changes, a tenacity was observed in the university community, where there is still the prevalence of habitual models and traditional teaching methodologies that harm learning. However, students handle different technological tools because they were born digital natives and use cameras, telephones, cell phones, and computers on a daily basis, tablets and computers, in front of the teachers who transmit consciences with traditional methods of teaching that revolve around books and written culture, however, the ICT invaded the daily life and education taking position of it, demanding a change in the classroom education allowing teachers to access knowledge in a dynamic and creative way (González & Rincón, 2017).

García and Jauregui (2019) state that distance education in its virtual phase has achieved its own space for development and acceptance, putting itself at the forefront of the traditional educational model, with the Internet playing a relevant role in global society.

Juca, (2016) affirms that distance education transforms the traditional schemes of the teaching-learning process, both for the teacher and the student, he also agrees with Garcia and others that distance or virtual education has changed the traditional ways of teaching and learning.

Chávez (2014) describes that one characteristic of ICT is the interactivity it offers to students and teachers in the same line Unesco (2019) affirms that teachers in relation to ICT change their functions and assume new methods and pedagogies for teacher training, integrate ICT effectively and execute innovative and collaborative learning, where pedagogy and technology are combined, this is known as teaching competencies in the field of ICT (p:19).

Vygotsky (2004). affirms that the subject builds learning in relation to his social environment and acquires learning in significant social situations with mediation, this learning originates in the historical, cultural and social environment, and is developed in contact with social groups with similar and specific needs of the mentioned group.

Pimiento Prieto (2012) states that a competence is a set of knowledge, skills, procedures, values and attitudes, which evidence the performance of the subjects and that the existence of the competences, is given by the need to solve problematic situations that are presented in the profession, therefore the domain of digital competences in teachers is generated according to a need.

In the same way, Tobón (2010) from the socio-educational approach tells us that the curriculum should aim to regulate daily practices, promoting an integral formation in the person, as well as contributing to the resolution of current and future problems in the life of individuals, families, communities, and society. Garcia (2014) sustains that distance education in the digital society has grown vertiginously, complementing face-to-face education with the intervention of different agents such as teachers and students. He also mentions that distance education is a problematic area, due to the diversity of proposals, it is heterogeneous, and has multiple bases of support such as psychology, sociology, anthropology and others.

In response to this problem and to guide the present investigation, the following research questions were formulated: How are the approaches to virtual education in the educational community of teacher training, what are the perceptions of the directors, teachers and students about virtual education, what are the perceptions of the educational community regarding the use of techniques and tools of virtual education, what are the perceptions of the members of the educational community regarding the use of methods and strategies of synchronous and asynchronous communication in virtual education, what emotions did the members of the educational community experience in relation to virtual education? The research is justified in an emerging study, which aims to interpret, describe, and understand the participants of the study in the face of virtual education, Martinez (1999) tells us that teachers are a decisive and important group for collecting information in educational institutions.

The practical justification was based on the relationship that exists between the diverse actors who were forced to move from presentiality to virtuality blindly, without deep knowledge regarding virtuality and the implications that the use of computer tools, adaptation of virtual materials and virtual evaluation address. The social justification responds to the social isolation, as a measure adopted worldwide, to safeguard the integrity of students and guarantee the continuity of their learning through virtuality. These measures have shown the precariousness of education in Peru, little budget allocation to the education sector, poor technological implementation, lack of virtual platforms, mobile computer equipment and the lack of updating of teachers who are trainers in state institutes and pedagogical schools (Salinas, 2011).

To guide the study, the following objectives were established: to learn about the approaches of principals, teachers and students to virtual education; to learn about the perceptions of principals, teachers and students regarding access to virtual education; to learn about the perceptions of the educational community regarding the use of virtual education techniques and tools; to learn about the perceptions of principals, teachers and students regarding the use of synchronous and asynchronous communication methods and

strategies for virtual education. The last emerging objective is to learn about the emotions experienced by members of the educational community when faced with virtual education.

Methodology

The research presented was framed within the qualitative approach (Rodríguez, Gil y García, 1999). The method used was the virtual ethnography in education also known as cyber-ethnography, which is an online research method, Christine, (2004) that adapts the ethnographic approach to the study of cultures and communities that are created with social interaction mediated by the computer and because it is an online method it adapted perfectly to the moment of social isolation that we were living, allowing us to know perceptions, customs, knowledge, interactions and beliefs of the Educational Community in the face of the new scenario of virtuality (González-Díaz & Polo, 2018).

The study scenario is a virtual scenario around a Pedagogical Higher Education School in Lima - Peru, this scenario of human, pedagogical, disciplinary and socio-cultural coexistence, is evidenced through the virtual interactions of directors, teachers and students gathered in a virtual scenario, by means of technological tools, such as platforms and virtual classrooms, chat, wasap, Messenger, phone calls and e-mails (Martínez, 1999).

Twelve informants participated, the selection criteria were: membership in the educational community of study as a manager, teacher or student, Monge, (2011). In the present study I participated as an ethnographer, who interviewed, observed, recorded, analyzed and interpreted the information collected through the study.

Data Collection Techniques and Instruments

As research techniques, participatory observation was used and a field journal was used as an instrument, another technique used was in-depth interviewing.

The process to collect information was carried out in various ways, the participant observation Hernández, (2014) was executed through a field diary, in which everything observed in virtual classrooms with interaction of students and teachers was recorded, the in-depth interviews were carried out through recordings using instant messaging resources such as Messenger and wasap, communicational experiences through phone calls, video conference recording through zoom and e-mail, these interviews were then deducted through the Speech texter tool and in the case of video conferences they were converted to mp3 with the online-audio-with-pour tool (Hernández, 2014).

The information analysis process was carried out simultaneously as the information provided by the informants was collected, the categories were organized and related to the information provided by the informants in the interviews and the information collected by the ethnographer in the field journals. Deductive and inductive categorization allowed the segmentation and identification of units of meaning and grouping into descriptive categories, As well as the construction of a system of emerging thematic nuclei, the information collected and organized was linked to the theoretical references and the analysis and codification was done aprioristically and open and emerging codification. The analysis, as its name indicates, implies a comparison between the diverse information collected from the informants, with the purpose of providing greater reliability and consistency to the data analysis, three types of triangulation

were done: a theoretical one, which consists of relating the collected data with the information from the theory, a methodological triangulation: which leads to comparisons between methods, techniques or instruments, allowing reliable information to be obtained from the data crossing, and a data triangulation that allows the analysis of the production of information and explains the approximations about the study group. These processes were carried out manually and the theoretical and data triangulation with the software Atlas ti. 8 (Martínez, 2004).

Scientific research practice and the use of knowledge produced by science call for ethical conduct of the researcher. Analyzing the established ethical considerations in qualitative research, which focuses on ethical approaches to discussion and ethical evaluation of research (Graham, 2007)

In this aspect, letters of informed consent were applied, in which informants agree to be interviewed and the use of the information provided for research purposes (Taylor, and Bogdan, 1994).

Results

The contact with the informants through the in-depth interviews, the participant observation, recorded in field diaries, the phone calls, the e-mails, the conversations by wasap and Messenger, used during the whole study, have allowed to record the changes of perception of the Barcia Boniffatti's virtual educational community, as opposed to the study phenomenon, as it is visualized in the data triangulation graphs.

The development of the research, allowed to go through different processes described in the following methodological narrative report of the research process, at the beginning of the research at the end of April, the object of study turned around the approaches that the members of the community had, in front of the virtual education, new at that moment, this generated uncertainty among the students, teachers and directors, when facing a new educational process through virtuality, which included the knowledge of the handling of techniques and tools of virtual education, the knowledge of new methods, strategies and new forms of coexistence through virtuality.

The initial guiding categories, were transformed during the ethnographic study in contact with the participants of this study, the use of resources such as email, instant messaging such as wasap and Messenger, communication experiences through video calls, educational platforms, virtual classrooms and video conferences, generated a rich experience of virtual learning media, never before seen in our country in front of the emergence of satellites that has been crossing the planet, making the educational community in a virtual community of mediated learning.

This recording of temporary information has recognized the emergence of new categories in the study that allowed to register the transformation of the behavior of the human being in front of the same problem, but in different moments. Thus, we move from the expectation in front of the new, to the frustration in front of the excess, explained in students' manifestations that at the beginning of the research declared many expectations and curiosity in respect to virtual classes, which later turned into frustrations in front of the excess of tasks, improvised educational platforms, interrupted virtual classes, inadequate handling of techniques and tools of virtual education.

Discussion

It has been proposed to know the approaches of the directors, teachers and students of the EESPP Emilia Barcia Boniffatti of Lima, with respect to virtual education, in the face of measures of social isolation by the COVID-19. The results of the analysis show that teachers and students, at first, were in a process of uncertainty originated by the social isolation generated by the COVID-19, an episode that confronted them to a new process of management, teaching and learning through virtual means or virtuality. The analysis allowed us to know: how learning was generated in practice itself, on the part of teachers and students, who were forced to learn in the process of running classes through autonomous learning and mutual learning among teachers, Rodriguez, (2020) states that teachers have to adapt to change, this statement can be seen in the record of the following interview:

"...it is a situation that is not very well known in any case, not very practiced and that up to now is being organized to see its organization, secondly there was also no previous preparation for this purpose, I believe that there was not all the foresight of the case and that for the same reason it means using time to train, to prepare and to be able to respond to the need that is required" (Basaldúa, 2020).

Vigotsky (2004), states that learning occurs out of necessity and in context, an expression that confirms what has happened in this process experienced by the educational community of the EESPP Emilia Barcia Boniffatti. The analysis also showed the demand for the management of ICT, both for teachers and students, virtuality also requires managing time in an optimal way, the analysis shows that this process was not executed properly, leaving an excess of activities for the students at home by teachers; These statements are related to Serrano, Flores and Lobo (2017), who state that the training of teachers in technologies is basic for the development of technological skills that seek to improve their performance according to the needs of their students, the handling of ICT tools, allows students to learn more easily. The approaches of the directors to virtual education at ESPP Emilia Barcia Boniffatti were diverse, as could be seen in the following interview with a director:

"This initiative could be said that both students and teachers have taken it very well, we may have weaknesses in the management of some virtual strategies but that attitude they have put, makes the virtual academic activities are being developed, and is walking in a very good way" (Diaz, 2020).

These statements contradict the analysis of the information provided by teachers and students in this regard. To know the perceptions of teachers and students of the EESPP Emilia Barcia Boniffatti in Lima, regarding access to virtual education. The result of the analysis reflects that the directors, teachers and students of the virtual educational community of the EESPP Emilia Barcia Boniffatti, had many difficulties in accessing the various educational platforms. In the case of the directors, teachers and students, most of them did not know how to use and manage the platforms, there were connectivity problems, classes were interrupted 40 minutes after they started and then had to be resumed, generating demotivation and annoyance. Serrano, Flores and Lobo (2017) state that the training of teachers in technology is basic for the development of technological skills that seek to improve their performance according to the needs of their students, so the handling of ICT tools allows students to learn more easily.

Also regarding the students, the perception they have of this process, is the investment of learning: where the students became teachers of their teachers, helping them in the management of these virtual tools, teaching them how to enter, how to use the platform, etc. as the students claim, they know a little more about ICT than their teachers, Garcia (2014) states that currently the use of technologies in educational institutions is inverse (flipped classroom). The teachers' perception regarding the use of technological tools can be seen in the following extract from an interview with a teacher: "...through learning and self-learning by means of each one of the teachers in the use of some technological tools, such as the use of meet, the use of zoom and also support among themselves" Olivo, (2020). This comment of the interview reflects that the teachers and students learned in the march to use technological tools, More (2018) affirms that the training and the time of practice, do not evidence a good performance as a virtual tutor.

As for the objective, to know the perceptions of the directors, teachers and students of the EESPP Emilia Barcia Boniffatti in Lima, regarding the use of methods and strategies of synchronous and asynchronous communication of virtual education. With respect to the use of synchronous and asynchronous communication methods and strategies, the analysis reflects that the virtual education executed by the teachers of the EESPP Emilia Barcia Boniffatti, has been diverse, going from the use of tools such as virtual platforms to the use of devices such as telephones, tablets, etc., they also made use of instant communication through wasap, Messenger and emails, with the purpose of guaranteeing learning, these efforts were recognized by the students. Cachari (2016) highlights the students' perception regarding the use of technological resources and the acquisition of ICT competencies by teachers, as skills that are used to develop ICT in their training experiences, an expression that contradicts what happened in this process experienced by the educational community of the EESPP Emilia Barcia Boniffatti, where teachers mostly did not have ICT competencies, but were learning in the process of virtual classes.

A particular process that was identified in the study is related to the autonomous learning exercised by the teachers and students, who learned by investigation and in mutual cooperation exercised among the teachers themselves, repeating the model among the students, who learned by necessity to use means and strategies of synchronous and asynchronous communication, Pimiento (2012), says that learning is given by the need to solve problematic situations that are presented in the profession therefore the domain of digital competences in teachers is generated according to a need. On the other hand, to know the perceptions and emotions of the members of the educational community of the EESPP Emilia Barcia Boniffatti, in front of the virtual education.

This sub category is emergent, it arose in the execution and analysis of information, it is a category that reflects the diversity of emotions of the participants in ethnography, such as: surprise, annoyance, solidarity, frustration, fatigue, positive attitudes, group work, mutual support, adaptation, enthusiasm, impact, fatigue in the face of excessive tasks, autonomy, teacher support, high expectations, positive attitude, novelty, new, difficult adaptation and effort. (Basaldúa, 2020). Another important process of analysis, explains the affective relationships and links created between teachers and students, characteristic of the virtual community of study, which reflects the mutual support among its members and converts the lack of knowledge of virtual education into a learning opportunity, which was transformed during the course of the research. This could be observed in the interview presented: "In the first moment we were impacted and the whole vision of education changed... so at the beginning it was

difficult, we didn't adapt to it, let's say the way the space was organized, so the organization was like something annoying, tedious, and later we adapted to the virtual classes, as the days went by we were adapting" (Acuña, 2020). The emerging analysis also revealed the perceptions of teachers, directors and students with respect to virtual education, highlighting the lack of knowledge about virtual education on the part of teachers and some students.

The students' perception of teachers' management of evaluation strategies is heterogeneous; some teachers know and manage virtual tools, while others do not, in terms of educational materials and use of virtual tools, and they use the same ones as in face-to-face education. Another weakness in teachers is the management of evaluation instruments for teachers, both face-to-face and virtual, and they also say that teachers do not plan or measure activities and leave many jobs. As for the teachers, the perception they have regarding the students is that they handle computer tools, they adapt quickly to virtual education, they do not respond to asynchronous communication, they do not do homework, they have difficulties doing work at home.

Conclusions

First: The approaches of the virtual educational community of the EESPP Emilia Barcia Boniffatti, have been modified over time, becoming a permanent learning and interlearning among its members, evidenced in the coexistence and interaction as a virtual community, highlighting the solidarity and commitment of its members to gradually incorporate to virtual education, having as its axis the autonomous and cooperative learning.

Second: The perceptions of the different actors, directors, teachers and students agree that there are technological weaknesses with respect to connectivity and access to online programs, the execution of classes in virtual classrooms, the use of virtual materials and the use of virtual evaluation techniques, due to the lack of a virtual platform implemented and owned by the educational institution.

Thirdly, the educational community of the EESPP Emilia Barcia Boniffatti appreciates that the use of virtual education techniques and tools is diverse according to the actors involved. Teachers recognize that they have weaknesses in the use of strategies, educational materials and above all in virtual evaluation, and students recognize the effort made by teachers in the development of classes.

Fourth: The perceptions of the directors, teachers and students of the EESPP Emilia Barcia Boniffatti, with respect to the use of methods and strategies of synchronous and asynchronous communication in virtual education, has generated a new methodology for the training of teachers of the initial education career, from the optimization of technological resources that favored the channels of synchronous communication through educational platforms such as the Zoom, the Meet and the classroom, which allowed interaction in the virtual classrooms in real time with the students, as well as the asynchronous through instant messaging such as telephone, wasap, email, forums and social networks.

Fifth: The virtual coexistence in community, has evidenced a diversity of emotions and perceptions through which we human beings go, when we face a new and often unknown process, as it is the virtual education, allowing to observe mixed feelings and contradictory emotions such as enthusiasm and annoyance, expectation and tiredness, frustration and hope, emotions that consolidated the solidarity between its members, in front of the diversity of vicissitudes experienced in this process of virtuality.

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