

Perceptions about Digital Communication at Ebe

By

Mg. Charo Mimi Cervantes Rosas

Universidad Cesar Vallejo, Perú

ORCID: 0000-0002-8564-6067

Email: ccervantesr@ucvvirtual.edu.pe

Mg. Marlon Joel Silva Huamán

Universidad Cesar Vallejo, Perú

ORCID: 0000-0002-9264-8781

Email: masilvah@ucvvirtual.edu.pe

Abstract

Education assumes a great challenge, for which teachers are looking for resources that allow them to achieve pedagogical work. Hence, the application of digital communication emerges as the easiest and most accessible alternative for this purpose. This study aims to collect the different perceptions of the educational actors in the special basic education (EBE) modality. The work is of qualitative approach, under the grounded theory design, in which the interview was applied to 20 participants among teachers, therapists and parents of the EBE. As a result, the following categories were identified: Educational resources, characteristics and perceptions of Digital Communication; an analysis of the experiences was made in which it was concluded that the application of digital communication as an educational resource had provided multiple benefits, the characteristics of the functions it presents, makes communication and interaction between teachers, therapists and parents more fluid, allowing the sharing of documents, tutorials, videos, photos, among other features. The perceptions of the educational community regarding its use have proven to be positive, being the accessibility and ease of use a determining factor, the negative aspects in the experience of using the application have been given more by the lack of knowledge in its configuration and connectivity in remote places of the city.

Keywords Social networks, educational resources, disability

Introduction

At the end of 2019, a health emergency arose that affected all sectors worldwide, putting education in a worrying situation regarding how to face the challenges of remote teaching directed from homes (Fahrudin et al., 2021). In addition, the concern of the least favored sector of Peruvian education, which already in itself, in conventional education, suffered from necessary aspects to meet the objectives of an inclusive culture with equity and quality.

Therefore, the educational community, trying to adapt to the new context, seeks alternatives that allow and facilitate the creation of virtual learning spaces, emerging as an accessible and easy alternative, the use of digital communication (Enyama et al., 2021), which was conditioned for the interaction and transmission of information by educators, taking into account the peculiarities of special basic education, which by the same particularities it shows, the work requires the responsible and active collaboration of parents (MINEDU, 2019). For this, the teacher must encourage a committed attitude toward the proxies of children with disabilities. Canese et al. (2021) highlight the vital importance of motivating and correct

interaction with families, who will become great allies in developing the competencies of children with special educational needs.

For Alasuutari (2020), children with different abilities should not be left unattended; therefore, in this teaching modality, parents assume a great responsibility; just like everyone else, they have the right to be cared for in the same conditions, although they have to show more effort due to the limitations of their children's disability and assume the role of the teacher in their homes.

The agency for Children has conveyed concern about the inequity in this population group of children with disabilities, which is persistent, the children's families face barriers excluding them from many benefits, and education becomes more complex in these circumstances. Hence, UNICEF (2019) states the importance of contextualizing measures for parents to receive guidance, mitigating in some way the limitations of social isolation.

For Ortiz (2020), those involved in education should seek strategies that best suit their possibilities, considering time, economy and other determining factors in virtual education. On the other hand, the agency responsible for the unification of the individual with disabilities CONADIS, reports that in Peru, only 4.9% of children under three years of age benefit from an early educational approach, 9.9% of children under one year, 1.9% of one year, 8.0% of two years, this document shows the gaps that still need to be covered in educational access for infants with disabilities or at risk of suffering one (CONADIS, 2021).

The use of digital communication as a tool, with all the peculiarities it possesses, allows a quick response to the emergency, forging an enabling environment between teachers and families of children with special needs, allowing this medium to guide and accompany families to meet the planned learning purposes (Akaloo, 2021).

Digital communication in this education modality is important, and even when it is the most used application in times of social isolation, it allows collaboration. Furthermore, it invites parents to get involved in educational activities, considering their key elements for the educability of children (Cano and Argemí, 2021), especially if they are vulnerable to physical ailments. It also presents favorable characteristics that are perceived by family groups, generating confidence in its use and quality of the service it provides for interaction with teachers (Steven et al., 2021); at the same time, it also shows limitations and disadvantages, causing difficulty in the use of this technological resource (Rozgonjuk et al., 2021).

It is necessary to analyze the experience of the use of digital communication as an educational resource from the different visions of EBE, taking into account aspects that have allowed the development of remote education, making use of this application, the role of the teacher and the action on the part of parents, which has finally transcended in the progress of children.





This study aims to collect the different perceptions of the educational actors in the EBE modality, using digital communication as an educational resource, and the characteristics and perceptions that have arisen when using them according to the different disabilities.

Methodology

The current research has a qualitative approach, which argues the various appreciations that the educational community of the EBE modality has, including professional teachers,

therapists and parents, to know theories in the use of digital communication as virtual educational support in daily life of remote work. In this way, the research is important because it studies a social problem in which different aspects of distance education interact in this population group that presents complex characteristics (Urbina, 2020).

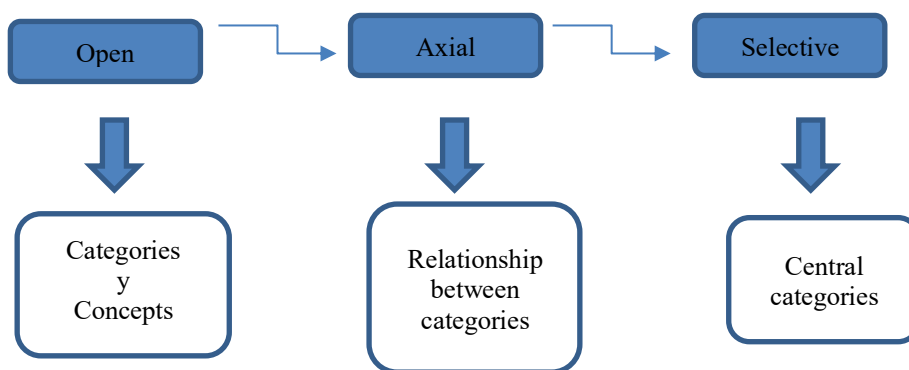
This proposal is based on the categorization of the interviews with 20 participants (teachers, physical therapists, parents) for which it was deemed convenient to use colors; then proceeded to the open coding of the subcategories: educational resource, characteristics of digital communication, positive perceptions of digital communication, negative perceptions of digital communication.

SUBCATEGORY	COLOR
Educational resource	
Characteristics of digital communication	
Positive perceptions of digital communication	
Negative perceptions of digital communication	

Source: *Own elaboration*

Figure 1. *Categorization of interviews*

Then the axial coding was performed, where the categories were related then selectively coded, resulting in the central categories: educational resources, characteristics of digital communication and perceptions of digital communication, where the theoretical systems arise in reality experienced by those involved, generating analytical processes through coding to build links between categories, subcategories and concepts (De Franco and Solórzano, 2020). Its inductive procedure originates from facts and experiences, considering the particular and specific that develops in a given situation (Yépez and Rojas, 2018). For adequate coding, the following stages are considered.



Source: *Own elaboration based on Espriella and Restrepo (2020).*

Figure 2. *Coding stages*

The study was conducted in Pucallpa's early intervention programs (PRITE). For data collection, an unstructured interview was carried out with 20 people who are part of the EBE, teaching and non-teaching professionals and parents of the early intervention programs; the interview allowed the participants to collaborate easily, ensuring that everyone could respond (Feria et al. 2020). This technique has been widely used in moments of confinement since it helps to have broad information about the perception and different opinions that start from the subjectivity of those involved, enriching information to have a much more comprehensive

analysis of the daily experience of the use of digital communication (Hernán et al., 2021). Furthermore, the interview was conducted in a climate of trust and tranquility, providing relevant information on the reason for its execution and ensuring ethical compliance with handling the data provided by the participants (Delclós, 2021).

The choice of sampling was given by convenience, for its ease and effectiveness, allowing to meet the objectives, having the characteristic of being intentional, structural and theoretical with contributions from the experience of professionals and parents involved in special education, contrasted with scientific foundations (Martínez, 2018). The following points were considered: Function, gender and age, as can be visualized in the subsequent table.

Table 1. *Participants interviewed in the EBE modality.*

Nº	Function	Genre	Age
E1	physical therapist	Female	40 years
E2	Teacher	Female	50 years
E3	Teacher	Female	52 years
E4	Teacher	Female	49 years
E5	Teacher	Male	62 years
E6	Teacher	Female	52 years
E7	Physical Therapist	Male	44 years
E8	Physical Therapist	Female	39 years
E9	Teacher	Male	52 years
E10	Mother of a family	Female	36 years
E11	mother of the family	Female	21 years
E12	mother of the family	Female	23 years
E13	Family man	Male	33 years
E14	mother of the family	Female	28 years
E15	mother of the family	Female	19 years
E16	Father of the family	Male	69 years
E17	Father of the family	Male	40 years
E18	mother of the family	Female	45 years
E19	mother of the family	Female	30 years
E20	mother of the family	Female	32 years

Source: *Own elaboration*

When gathering information on the different perceptions of the research participants, the study proceeded to the structuring of common meanings, falling into categories identified from the different concepts acquired in the interview, which contained the following questions: What do you think of the use of digital communication as an educational resource (informative, file sharing, video sharing and video calls)? What characteristics of the use of digital communication have helped you to carry out educational activities? and What situations have been generated by using digital communication?

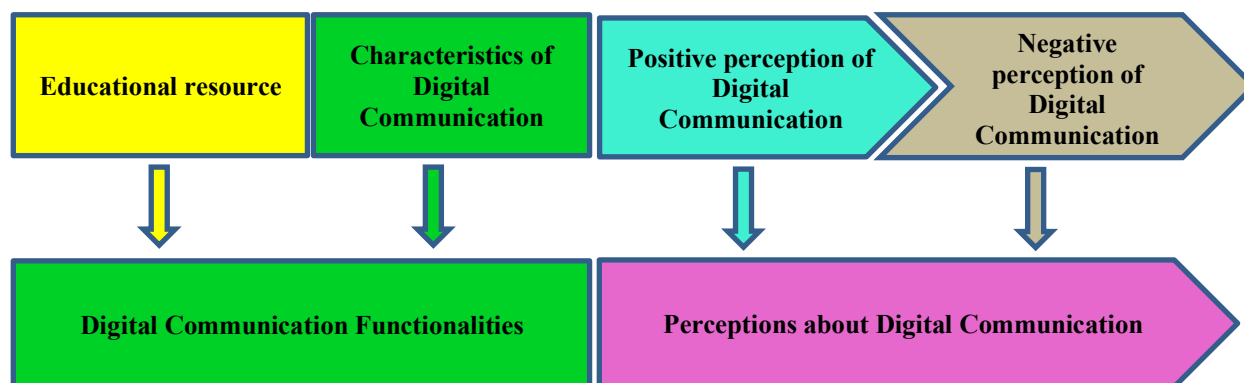
Then they were assigned a code differentiating them by colors, for which use was made of the excel table; in this way, order and better systematization of the texts obtained are achieved for the analysis and continuous comparison to building the theory of the real (Barrientos et al., 2019).

Once the categories and subcategories are identified, the study proceeded to axial coding, opening up a more accurate picture of the concepts obtained as part of the process, which will facilitate a better interpretation of the information (Morales, 2019).

Subsequently, a conceptual arrangement is made to confront existing scientific foundations, validating or generating contrast with them, thus explaining the information obtained from reality (Ortiz, 2020) and originating new theories that contribute to the construction of new knowledge in the social sciences.

Results and Discussion

In the analysis of the present study, four subcategories and two categories were identified, contributing to the grounded theory, as follows:



Source: *Own elaboration*
Figure 3: *Categorization*

Taking into account that the application of digital communication has been one of the most used digital resources in times of isolation, and acquiring the relevance to be used as an educational resource for the academic potential it presents (Francisco et al., 2021). Thus becoming the most functional application, due to its various features, to provide immediate answers to remote work in EBE.

As Caldera and Pérez (2021) point out, the use of Digital Communication has generated many perceptions of the different educational actors, each one according to the role they play in education; thus, in PRITE, due to the characteristics of the service to which it is directed such as children under three years of age with disabilities and risks of developing them due to the vulnerability of their health, there are professional teachers and physical therapists who do unified work with parents.

As a result of the questions posed to the participants after a thorough and reflective analysis, the following categories are broken down:

Educational Resource

Considering the questions posed regarding the research topic, the interviewees stated in their responses that the use of digital communication has been beneficial for communication with the families of children with SEN, activating constant interaction with families (Enguix et al., 2019): “It is a very good and informative application allows the interaction of teachers with families, through it, they offer recommendations and send activities to children” “It helps to be communicated between parents and teachers, and this application allows to share the progress as a family and children, sending images, videos and video call” (E19, E20. Mothers of families).

On the other hand, those interviewed for digital communication as an educational resource for the care of children in the EBE mentioned that: “Digital communication in these times of pandemic became a very important tool” “It is a very important means that helps to be communicated between parents and teachers, ...we can share the progress with our children through images, videos or video calls. Through digital communication, communication and exchange of information took place” (E1, E2, E3, E13. Teachers, physical therapist and parents).

They also state that it has become a source of information, allowing them to send tutorials: “It is a tool that is indispensable in the use of teaching and learning ... it was very useful when sending my video tutorials and audio messages and photos to interact with my students. The video tutorials were sent for feedback on the student’s learning experience”, “It is a good tool, manageable, very useful for the study,” “Digital Communication is a very indispensable tool to continue with the progress of the children’s teachings, and it is also fast and free. Therefore, Digital Communication has allowed better learning” (E8, E9, E18. physical therapist, teacher and mother); where the study by Pont et al. ratifies this information (2020).

When used as an educational resource, the app allows us many functionalities, as noted by the interviewees: “Easy to use and its use in education has been beneficial for the miss to make us get the information, in general, is very good for everything” “It allows making video calls for activities and classroom agreement” (E10, E12. Mothers of families), confirming with the work done by Téllez et al. (2019).

Also, the interviewees stated that the use of the app helped to develop activities: “It is a very good application; it helps moms to learn and teach our children to develop” “By this means we have been able to interact between parents and teachers” “By this means we were taught to perform the exercises from home and be in contact with the other families of the children and learn from each other, with the help of professional” (E11, E14, E17. Mothers and father of family).

This statement coincides with Puiggrós (2020) when stating, “It is educationally useful and resulted easy to learn for many professionals in the educational field” “Digital Communication adapted and accepted all the changes (E4), the educational usefulness of Digital Communication is evident, helping the educational community for its simplicity and flexibility in use (Suarez, 2018).

It allowed to bring and provide feedback to students, teachers and citizens in genera” (E6. Teachers) due to the application’s characteristics of allowing quick answers to the doubts raised by the families, which coincides with Torres and San Martín (2021).

Characteristics of Digital Communication

Concerning this category, the participants in the study mentioned that “Digital communication is accessible to everyone; it is easier to understand and comprehend through photos, videos, Word, PDF, there is much availability” (E1, mother). This information is corroborated with what was stated by (Fernandez et al., 2020). “It is the best application; it allows to carry and bring information in times of pandemic” (E5, Teacher), “Through digital communication, it was possible to communicate with the children’s parents” (E2, Teacher); the interaction is valuable in teaching, the support that the teacher can provide to parents is important as stated by (Guadamuz, 2020).

It is also important to highlight that digital communication “Is the most popular application today” (E6, Teacher), “It is the best known, almost everyone uses it” (E9, Teacher), and “Very useful and easy to use for all people” (E8, Physical Therapist), “Ease of information that is given between people” (E16, (E16, Parent), “Digital communication because it is easy has allowed learning to use its functions quick” (E3, Teacher), “Ease of use to share information and accessibility due to its free use” (E17, Parent), implies that families make use of virtual accesses that are within reach of the vast majority (Coca et al., 2020). One of its important features is the “Ease of video calls, text messages, sending videos, sending audios” (E2, Teacher), “It allows sharing videos or video calls, so they learned a lot (E3, teacher), “You can make video calls, presents text messages” (E1, physical therapist), “Allows the exchange of documents, photos, videos, evidence in general” (E6, Teacher), “Useful to make video calls, share videos, group calls, personal chat, form work group” (E9, teacher), “Listen to the audio, make video calls, send photos and text messag” (E10, Mother of family), “Send videos, images, documents” (E12, Mother of family), “We share videos, photos, and we are connected” (E15, Mother of family), “It allows to send short videos, also files and we can communicate” (E19, Mother of family), “It allows to make feedback, share documents, photos and videos, make calls and video calls, audios and text messages” (E5, Teacher), statements confirmed by Seo (2020). “Through this medium, participation is promoted as an educational resource that enhances learning” (Pérez et al., 2021). “You can upload images, documents of all kinds and it is done without difficulty” (E18, Mother of family), “Send information through Word, Excel, slides and videos (according to the size of the video, of greater and lesser capacity) does not accept videos of greater capacity” (E7, Physical therapist), with what was stated by the interviewees digital communication has many features that should be exploited for academic purposes as stated by Colín (2020). “To make video calls, send videos of evidence of work at home, ask questions about an activity” (E1, Mother). “Sharing files and the ease that the teacher has to send recommendations” (E15, mother), “Send evidence, enter digital communication rooms and video calls” (E4, Teacher), “Share videos for evidence of work at home with our children” (E1, Parent), using digital communication, it was possible to attend to the children’s families, taking into consideration that digital resources are limited for this vulnerable group, the application somehow provided answers to such particular needs of children with SEN (Medrano and Rojas, 2020).

Perceptions of Digital Communication

According to the interviewees, it is clear what is related to the positive perceptions of the interviewees about “Digital Communication allowed me a communication with parents” (E2, Teacher), “It has had positive things for its excellent communication” (E5, Teacher), the opinion of teachers regarding the use of Digital Communication have coincided in many cases in terms of how positive the interaction through this medium has been, being necessary an immediate action plan to respond to the need arisen by the isolation (Malucin, 2021). “You get to know, talk to the families and the student” (E1, Physical Therapist). These assertions are consolidated with what is mentioned by Granados (2019), where he externalizes the positive action of the application to promote cooperation with the entire educational community. “It is a very important application in our daily and modern life,” “To be updated with the information that is sent and received” (E16, Parent), “It can be said that it has been positive since it is a practical tool to send information” (E7, Physical Therapist), on these testimonies it cannot be denied that digital communication has marked a milestone as a communicative tool (Zapata, 2014). In the same way, the interviewees make known about the application: “It has been productive, and with digital communication, I have been able to learn more” (E3, Teacher), “Positive in terms of information processing” (E6, Teacher), “Permanent contact with the

classroom group, sharing virtual sessions, personal and group support to families” (E8, Physical Therapist), “It helps to comply with the activities of our children (E11, Mother of family), this virtual resource contributes significantly in the acquisition of knowledge (Diaz, 2021).

Physical therapists externalized positive conditions in the use of digital communication to be able to direct physical activities through this tool due to the variety of functions and accesses it presents, being the most outstanding functionality the ability to share videos, make video calls, send messages among others, being the most used application in several countries (Sixto et al., 2021). Furthermore, parents highlighted the accessibility of the application, added to the low cost of its use, being more affordable for everyone, and the selection of the use of digital communication is given considering the economic factor by families (Lizán et al., 2021). In addition, families mention the availability of the digital resource in distant places; since other virtual tools are more difficult to access and open due to the lack of connectivity, Digital Communication provides the opportunity for synchrony in places with difficult access to other digital platforms (Yalico, 2021).

At the same time, negative perceptions are mentioned for the educational environment: “I have had difficulties because it reloads with images and it is difficult to open again, it fills up the phone memory a lot” (E4, Teachers), “Also negative because it collapses the memo” (E5, Teacher), “The cell phone memory that fills up with permanent” (E6, Teacher). “It takes up much memory, and sometimes it wastes my Megas when I download videos” (E15, Mother of family), “The excess of messages and videos that are stored in the memo” (E17, Father of family), “Ignorance and it can fill our cell phone storage, forming many groups and distraction, therefore, it is not good” (E14, Mother of family); most of the negative statements have arisen due to misinformation regarding the configuration given to the application to store data and not fill the cell phone memory, as well as some difficulties due to the involvement of parents in the interaction through their evidence (Campa and Álvarez, 2021). Similarly, it is noted: “In some places it does not capture the signal well, and sometimes it is difficult to download files and watch videos” (E20, Mother of a family), Being the characteristics in terms of functions and tools offered by the application a great ally to develop and share important activities for families, the application in the learning process has certainly been beneficial but also presents digital gaps that are still not taken into account in some populations far from the city (Arrascue et al., 2021). “The Internet hung and could not be downloaded, but always trying to fulfill the tasks assigned” (E13, father of a family); assertions raised by the lack of connectivity typical of remote areas with large communication gaps (Anaya et al., 2021).

To a lesser extent, the following perceptions are presented: “Not so favorable for sending a large capacity video” (E7, Physical therapist); considering that the application was created for casual interaction purposes, the limitations are presented in some of its functionalities (Vilela and Urbano, 2019). “Digital Communication should be controlled for older children because they can be distracted if it is not controlled” (E19, Mother of a family); undoubtedly, minors should have advice on the management of social networks, even more so if they spend a lot of time on them, as it has been given currently (Astorga and Schmidt, 2019). “That sometimes they send us a lot of messages and it is lazy to respond, and then we forged” (E12, Mother of a family); virtuality has shown a certain lack of interest and commitment on the part of parents (Villanueva, 2021).

The perceptions in most cases have been positive in the experience they have had using them constantly, and the negative has arisen from the misinformation regarding the configuration given to the application to store data and not to fill the memory of the cell phone,

as well as some difficulties due to the involvement of parents in the interaction through their evidence (Campa and Alvarez, 2021).

Conclusions

As a theoretical basis for the results obtained, it is concluded that the application of digital communication as an educational resource has provided multiple benefits to the different educational actors in the PRITEs, becoming the most used resource by the institutions due to the ease and access it presents.

Digital Communication, due to the characteristics of the functions it presents, makes communication and interaction between teachers, therapists and parents more fluid, allowing the sharing of documents, tutorials, videos, and photos, among other functionalities presented by the application.

The perceptions of the educational community regarding the use of digital communication have proved to be mostly positive, being the accessibility and ease of use of this a determining factor in its use; the negative aspects of the experience of using the application have been given more by the lack of knowledge in its configuration and connectivity in remote parts of our city.

This educational resource has provided continuity to early intervention activities, being a viable alternative to support constant interaction with PRITE professionals and families in the EBE modality.

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