Experience of flexibility and educational interaction in a technological high school in the context of emergency remote teaching. Learned lessons.
Experience of flexibility and educational interaction in a technological high school in the context of emergency remote teaching. Learned lessons.

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Abstract: The objective of this document is to visualize the experience of educational flexibility lived during a period of emergency remote teaching through the graphic representation of the relationships between the actors and the teaching-learning processes, the determination of criteria and academic-administrative categories of the structure in the institution of El Grullo Technological High School that allows the implementation of a procedure of a multimodal system itself which facilitates the adaptation of learning processes mediated by technology with educational quality by identifying the interactions in pedagogical mediations that favor learning and give way to the choice of appropriate technological mediations that develop educational innovation as a significant change in their interaction internally and with the environment, understanding education as a relational process. These relationships are presented as a result of the collection of information and data obtained through interviews, sample survey and analysis of documents of the institution, interaction that is shown in the schematization, and visual representation of the educational processes of the case study in the community education of the El Grullo High School as learned lessons.

Keywords: educational flexibility, educational processes schematization, emergency remote teaching, High school community, educative technology.

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I. INTRODUCTION

Currently, it is common to hear that the digital transformation of educational centers has accelerated, the reality that exposed educational institutions during the pandemic caused by COVID-19 has put educational institutions in the dilemma of either achieving adaptation or disappear. This is how in March 2020, the institutions changed the operation scheme, stemmed from a simple statement issued jointly by the Ministry of Public Education and the Ministry of Health in Mexico. this digital transformation, forced due to the closure of schools, is no longer a project for the future. Face-to-face spaces were limited and the challenge of educational management had to be confronted from another perspective and position, since the way in which processes were managed and carried out within educational organizations was greatly modified. According to UNESCO (2020) estimates, at the start of the pandemic, close to 24 million children dropped out of school and the general impact on education exceeds 1.6 billion students from preschool to higher education.

The institutions generated various adaptations. According to Escudero-Nahón (2021), most of the institutions responded with emerging plans, amongst which was displacing the classroom to technology, but also at the process level of carrying out emergency remote teaching and its management, it was then sought to find solutions to maintain the face-to-face experience and replicate it through the use of digital tools, but few institutions did so with plans associated with contingency.

The complexity of the pandemic and the short preparation time prompted an immediate response to an emerging situation. It was a temporary solution to a larger challenge in which organizations should seek strategies that would allow them to achieve the expected learning and educational quality, and that these were to be sustainable over time, since there was no certainty of a return to face-to-face.

It must be assumed that said forced transformation has left digital processes and tools that are here to stay and that gave rise to the adoption of an educational multimodality or hybridity based on the flexibility of processes, resulting in a competitive advantage. Understanding what are the processes that allow such flexibility and how is the interaction in a graphic way in an educational community allows sharing the lessons learned in a context of emergency remote teaching that can promote the basis for educational multimodality with academic quality.

1.1 Approach

According to Guzmán Flores, Pons Bonals, Arellano Vega, & González Martínez (2020), at this stage in post-pandemic education by Covid-19, it is imperative to promote innovation processes that integrate virtual technological resources according to the needs present in each school context, which range from the generation of innovative practices in the classroom, to the approach of flexible multimodal education systems that allows the transit of students of each educational level, from one educational modality to another, for the benefit of their learning (p. 260).

Promoting such a transformation in educational spaces also requires academic leadership that allows, from management, to promote the processes of teacher and academic training that the institution needs. This can be achieved through the application of managerial strategies to improve the quality of learning where strategic decision making is the basis.

Talking about this flexibility and educational interaction can be shown in the experience lived in the El Grullo Technological High School, an institution that is within the upper secondary education system in the State of Jalisco in Mexico, which seeks to innovate in the management of educational institutions, through the implementation of a procedure to integrate an educational multimodality system that allows it to face various types of future contingencies while maintaining the quality of its academic offer, which includes processes designed to achieve
the expected learning and facilitate its adaptation and implementation in technology-mediated learning processes.

Said procedure initially requires identifying the characteristics of the institution and answering the question: Does this higher secondary education institution have academic-administrative structures willing to become more flexible and move from one education model to another for the benefit of learning while maintaining its educational quality? If this were the case, how can this change be made sustainable by educational processes mediated by technology, making visible the components of the educational community and the processes that intervene and interact in it? This is how it can be considered that it is a referential proposal for decision-making when considering the implementation of educational multimodality procedures, but what is multimodality?

To contextualize the concept, Santamaría (2018) synthesizes “multimodality” according to the following authors: for Cabrero (2006), multimodality is a virtual strategy; for Martos (2009) it is a network of cultural instruments and artifacts; for Plaz and Vessuri (2000) it is a telematic project, and for Borrás (2005) it is a holistic tool because it integrates the structural, the linguistic, the technical and the symbolic, related to communication and language, it guides teachers in training to know and interact with virtual teaching spaces, where ICTs are a support that allows them to develop reading, writing, reflective, evaluative and even affective skills in students.

According to Lozano Montero (2020) who cites Guzmán, Escudero & García (2015), in multimodal education systems the implementation of a series of didactic strategies mediated by ICTs is required. What changes between the traditional face-to-face school system and the distance or mixed modality are not only the learning processes, but also consider the characteristics of the student, the responsibilities of those involved in the process and the necessary conditions for learning success. The educational programs are also transformed and give meaning to the socio-educational task of distance and mixed education; It is considered as a space in constant social and cultural construction, where the contents are permanently updated, based on social, political and educational needs.

García (2020) cited by Lozano Montero (2020) proposes a reference structure for online education, which includes blended education and ensures that it will only make sense if it is consistent with the mission and vision of the educational institution; proposes the structure in layers, which serve as support for the following, these are: identity, infrastructure, support services, content, pedagogical model, academic services, policy and strategy. To guarantee the efficiency of educational multimodality, the support of both the entities involved in the educational institution and educational policies that support the transformation of education are required (Lozano Montero, 2020).

This is how this case study aims to show the experience of flexibility and interaction that led to the change from face-to-face to remote emergency teaching modality and that allows the adaptation of technology-mediated teaching-learning processes in the post-pandemic context through the schematization of the interactions and dynamics between the educational community, from its characteristics and dimensions of the organization prior to the implementation of a procedure that supports the integration of a multimodal system.

According to Moreno-Castañeda (2022), it is not easy to go from closed “aulicity” (court), court to educational openness. It is necessary to move from rigidity to flexibility, from simple instructional design to the design of learning experiences, where essential educational processes such as communication, access to information and knowledge, the possibilities of expressing what has been learned and the favorable environment to favor learning give way to the choice of appropriate technological mediations that allows the development of educational innovation as significant changes in their interac-
tions internally and with the environment, understanding education as a relational process.

These relationships are those that are shown in the schematization and visual representation of the educational processes of the case study in the educational community of the El Grullo Technological High School.

II. RESEARCH METHOD

The case study analyzes a specific unit of a population universe, it is generally of a descriptive type, it is carried out through the analysis of a single sample unit through the collection of data through observation, individual interviews, group interviews and analysis of documents. They are a useful research model to gather information in real life contexts, this type of research can be applied to situations that have taken place or used as they develop when they have been carefully elaborated, they can contribute to materializing changes significant in the fields of policy and practice (Stott & Ramil, 2014).

For this case study, it has been necessary to collect data considering the context of the institution in a period from January to July 2021 in the emergency remote education modality and the comparison of the situation of the processes that they maintain in the period from January to July 2022 in post-pandemic.

For Stott & Ramil (2014) all the information collected in the field must be carefully recorded with dates and data of its origin since the veracity of the research data depends on it, in this case, the method used for the collection of information. It consists of three instruments: individual interview with a manager, application of the form to a sample group of students, and analysis of historical documents of the institution.

The collection of information considers questions about the educational model, questions for students about the tools used and information of a legal and administrative nature of the institution. One of the applications of the analysis of the information obtained is the documentation of educational processes through the graphic representation of the relationships between the actors and the teaching-learning spaces of the school, as well as the visualization of the flexibilization experience lived during the period of emergency remote teaching that allows the implementation of a procedure for the adoption of a multimodal system that facilitates the adaptation of learning processes mediated by technology with quality in its educational offer and that in turn is sustainable in the time.

2.1 Description of instruments
2.1.1 Individual interview with manager

The interview with managers had the objective of supporting the description of the dimension of strategic management with the purpose of distinguishing the criteria and academic-administrative categories that the institution has, understanding what the educational model in the institution is adopted before the closure of educational facilities as a national strategy due to the implementation of the National Day of “Sana Distancia” (Healthy Distance) of the Ministry of Public Education in Mexico. It is an intentional or opinionated sampling where the subjects who are experts in a subject or relevant as sources of information are the ones who in this case make decisions about the management of education in this institution, 3 managers out of 6 in office were interviewed as of July 2022.

Knowing the perspective of managers has to do with the fact of inquiring about leadership and the vision that is held regarding the current model and how it can observe future scenarios. For this, templates were designed for data recording and interview systematization.

2.1.2 Sample group form. Survey of third semester students.

The survey of third semester students was carried out with the purpose of knowing the perception of the users of the educational model in relation to the dimension of student support and identifica-
tion of digital skills of third semester students (as of July 2021). For the application of the form, the Google Forms platform was used, and the Excel software was used to process the information. In the data processing, a descriptive statistical analysis of frequency and central tendency was used.

It was applied to third semester students of the institution (sample group of 33 students), from 16 to 17 years old, with a year and a half of school experience in the BTG community, one semester completely in person, second semester first three months in person and another three virtual, and third semester completely virtual. In this way, some features of the experience are identified from a group in which there is the dynamic of the three moments in the adopted model.

2.1.3 Analysis of historical and contextual documents of the institution

In this section, the reading of documents about the institution was carried out in relation to its constitution, legal framework, administrative management, academic educational processes and organizational relations to support the description and diagnosis of the dimension of administrative and academic management. Regulatory documents, legal framework and context of the organization were reviewed in a systematic manner.

III. RESULTS

Once the data collection, observation, and analysis of documents in the El Grullo High School (BTG) institution are carried out, the results of their schematization are presented as part of the graphic representation of the flexibility and interaction of educational processes in the figures of the following pages.

3.1 Flexibility and educational interaction in High School. Case study Technological High School El Grullo - BTG

Altogether, nine schemes are shown that range from the general structure of educational, administrative and academic management, the intangible systems that permeate the institution and the teaching-learning processes mediated by technology with the graphic representation of the tools used in the BTG community, during the context of emergency remote teaching and the comparison to July 2022.

Figure 1. Graphical representation of the identification of general components in BTG
Figure 1 shows the graphic representation that is made once the general components of the BTG community have been identified, where the interaction between the Organizational Structure, the Learning Environments and the Educational Service is presented in the context of a small administration community, of private property, with a technological focus, Catholic philosophy, and inter-regional users. In Component A: Organizational structure, the following processes are considered: Administrative, Strategic and Educational Management. In Component B: Learning Communities and Educational Processes. In Component C: The High School modality as a technological model.

For the purposes of starting with the description of the components of the community and educational management, the levels of educational management in BTG are identified, with four levels that compose it: Legal, Administrative, Strategic and Academic represented in figure 2.

As shown in the previous figure (figure 2), at the Legal level, the following authorities and applicable regulations must be considered: it is a Civil Association that belongs to the Undersecretary of Higher Secondary Education (SEMS by its acronym in Spanish) and the General Directorate of Industrial Technological Education (DGETI by its acronym in Spanish) and has been incorporated into the Ministry of Public Education (SEP by its acronym in Spanish). At the Administrative level: Dean-Principal, Sub-direction, Academic Assistant and Functional Departments. At the Strategic level: There is the relationship with the community, the alliances with universities that the institution has, its membership in the National Education System, and its membership in the SEMS and DGETI. At the Academic level: Academies, Teachers, and Students.

Component B: Learning Communities and Educational Processes. In Component C: The High School modality as a technological model.

Regarding the organizational structure of the BTG, it is important to clarify that the highest authority is the Civil Association called “Patronato de Superación Integral Autlán A.C.”, followed by the Principal of the campus, it has functional departments and hierarchical levels within the organization, consultancies are offered like psychological counseling and vocational guidance, in addition to nutrition consulting that is responsible for the offer of the school canteen (service suspended during the period of emergency remote teaching and adoption of the hybrid model) and the area of social service and titling that allows graduates have a professional credential at the technical level.
in the Jalisco Association of Higher Secondary Education Institutions (AJIEMS by its acronym in Spanish) and the agreements and letters of friendship with educational institutions of higher education. At the last Academic level are: Academies, Teachers and Students. Said educational management (figure 3, being the following: Institutional Regulations and Normativity, Administrative-Operational, Organizational-Systemic, Community-Relationship and Promote Culture with programs such as Eco BTG, Nutrition BTG, BTG Talents (painting, dance, mathematics, office automation, declamation, writing, etc.), BTG Maraton and Consulting and Accompaniment.

The institution’s intangible system (figure 4) is made up of: Values such as Discipline, Empathy, Solidarity, Responsibility and Social Conscience, which promote Culture with programs such as Eco BTG, Nutrition BTG, BTG Talents (painting, dance, mathematics, office automation, declamation, writing, etc.), BTG Maraton and Consulting and Accompaniment.

Figure 3. Identification of educational management dimensions

Figure 4. System of intangibles in the institution
This BTG culture encourages the participation of employees and users, generating the learning community that drives customer satisfaction (parents and guardians), providing a comprehensive education and regional identity, to finally boost the perceived value for stakeholders by improving the level of competition and social mobility.

During the implementation of emergency remote teaching in BTG, the technological mediation process can be schematized through the categories identified as part of the technology-mediated learning experience and its didactic components, as shown in figure 5, where through five categories, said implementation was achieved and the flexibility experienced in the educational model is shown.

The conceptualization of the technology-mediated learning experience and its didactic components in the BTG community represented in figure 5 is complemented by the identification of the interaction characteristics (figure 6) of the elements that, through technology, make up the BTG learning community.

Figure 5. Mediation by technology of the didactic components. Remote Emergency Teaching-BTG Model

Said flexibility is presented by categories, which are: A. Evaluation through resources (digital evaluation resources and multimodal feedback such as video, audio and/or text), B. Learning activities through sessions (video conference, work collaborative), C. Mediation through technological tools (by Web Conference and remote interaction, technological platforms for content generation, technological applications for active learning), D. Interaction through actions such as: Live video sessions conference, on-demand advice (remote / distance), individual and group tutorials (remote / distance) and E. Generation of content through instruments (Lectures, Presentations, Websites, Videos, Infographics, Manuals, Digital Books).
Said interaction of the elements that make up the technology-mediated learning community can be seen in figure 6 with the following elements: Educational portal (btg.neolms.com, edelvives.com.mx, oxford.edu.mx), Educational software (G-suite, Microsoft Office), Vocational guidance (agreements with national and international universities), Social Coexistence (student government), Educational interaction (discussion groups), Educational organization (educational management and High School modality), Educational strategies (teaching-learning processes), and Teaching (teachers, professionals and specialists).

The interaction of the elements that make up the learning community also brought digital trans-
formation and adaptation in academic management processes (figure 7), such as admission processes, enrollment and scholarship management, registration to educational platform, writing and review of grades and qualifications, evaluation assessments, attendance reports, control of teaching hours, tutorials and management of academic events, review of curricula and syllabus, all this allows one to get an idea of the areas in which it can be carried out some type of intervention or educational research in pursuit of continuous improvement.

In relation to all these processes, something that is expressed in the interviews with managers is that “rather than talking about school management (because all the administrative and management part continued to flow during the period of emergency remote teaching) the ways in which a digital issue, a virtual issue such as meetings, sending information, etc., more like an adaptation to changing the way processes are carried out”. That is to say; In these processes of academic management, more than a flexibility, there was an adaptation from the physical to the virtual, allowed and guided by the guidelines set by the authorities to which the institution is attached (figure 2), for which the flexibility is perhaps referred to as delivery dates and means of shipping and communication.

In this aspect, the human resources of the entire institution are important, having a team of teachers and administrators, of managers who have this vocation and who are committed to the training of young people helps and is the basis for being able to offer a service of quality.

Finally, the proposal for the schematization and integration of the figures described above to represent the flexibility and interaction of environments, processes, and procedures in the BTG community are shown in figure 8, which aims to graphically synthesize and list the processes, procedures, and environments of an institution like BTG that aims to visually integrate the processes of innovation and educational management, by dealing not only with emergency remote teaching, but also by betting on a model that integrates learning from the post-Covid-2019 pandemic context and accepts the challenge of a quality education, beginning this process by identifying its very components that allows it to develop efficient procedures to achieve said objective.

![Figure 8. Schematization and general conceptualization of environments, processes, and procedures](image-url)
The clarity that can be given by identifying the components of an organization (figure 1) as well as its organizational structure allows the understanding and description of the interaction of activities by dimensions (figure 3), their levels of educational management (figure 2) and the mediation in the learning community, in such a way that an ideal conceptualization of the experience mediated by technology can be outlined (figure 6) which derives in the characteristics of the educational service focused on the learning process. Recognizing the educational management processes (figure 7) allows us to observe the interaction of the elements that make up the technology-mediated learning community together with the learning processes; such as motivation, interest, attention, acquisition, understanding, assimilation, memory, language, processing, organizing, evaluation; and academic management processes.

The process of outlining intangible characteristics (figure 4) of an institution like BTG, whose purpose is to achieve the expected learning and educational quality, generating a positive impact in the labor market in the local, regional and international community through the generation of value and a complete education that results in an integral citizen, can be seen expressed in figure 8 through a general scheme that incorporates its components, processes, and intangible procedures, as a basis for the design of a procedure that allows the implementation of an intermodal system that facilitates the adaptation of learning processes mediated by technology with educational quality in upper secondary education institutions such as the El Grullo High School, which will allow it to continue developing a competitive advantage.

In the stage of return to face-to-face and hybrid model periods (period from January to July 2022), some of the tools are modified (figure 9) where the most significant changes are:

- Maintenance of WhatsApp groups for official academic notices
- Monitoring and evaluation in all subjects on the educational platform (btg.neolms.com)

This allows maintaining the channels to ensure the necessary and timely communication.
The design of flexible learning experiences breaks with the idea that the only educational space is the classroom and considers the multiplicity of possibilities that both students and teachers have to produce and transfer knowledge: prototypical problems in real settings, face-to-face laboratories, virtual and remote, workshops, practices and field work, independent study, the Internet and real educational projects, participation in research projects, seminars, colloquia and debates, analysis and discussion groups, conferences, consultancies, tutorials, citizen councils and business, companies, visits, stays, cultural activities, transformative social innovation projects and many more. In such a way that the fundamental organization structure makes it possible to have an adequate relationship of all these experiences (Area Moreira, et al., 2022). This is how academic hybridization does not materialize in a finished product, it is a permanent process of inquiry in search of a modality that is different and better than those that are mixed to give it origin (Moreno-Castañeda, 2022).

**IV. DISCUSSION**

The academic-administrative characteristics that are graphically evidenced in the case study that was presented show an institution that added characteristics of innovation in educational technology, adapting to the context of emergency remote teaching, which led to a change in modalities, processes, and procedures both academic and administrative.

Identify the way in which students and teachers, particularly, solved an educational problem in a specific context as it was a small community, privately owned and managed, with a technological focus, Catholic philosophy, and inter-regional users (“Sierra de Amula” and South Coast of the State of Jalisco) allows to put on the table the components that should really be considered in what is now treated as an online educational revolution or distance education, situating ourselves in the teaching and student processes with specific characteristics and infrastructure, situation that exposes a particular research condition for educational innovation.

In distance teaching, a set of web applications can be incorporated, such as: tools for interactive presentations, gamified assessments and interactive whiteboards, as well as tools for synchronous and asynchronous communication; however, it is not necessary to lose the purpose of the activity and consider that these tools are in accordance with the possibilities of the student. This study also exposes that the teacher is in need of facing the ignorance of various didactic-pedagogical methodologies to transform technology into mediating instruments of learning (González, 2021).

For González (2021), who cites Giráldez (2020), this can explain why many teachers maintain the contents, the transmission methodologies, and the use of videoconferences as they would in a face-to-face class, which shows the reality of many teachers at the beginning of emergency remote teaching generated by Covid-19, since teachers and students had few digital skills to face online teaching during the pandemic.

While it is true that distance learning reaches non-traditional students, in geographically dispersed locations, who are unable to attend face-to-face classes, it is for this reason that institutions have been quick to realize the many advantages of distance learning, such as with easy access to learning materials, interactive activities, and assessment and communication tools, the road to anything approaching dual, hybrid or remote mode provision has not been free of obstacles (Frensen, 2018). Particularly in Mexico, the conditions of the digital gaps must be thoroughly reviewed to adopt these models, since there are processes of inclusion and technological adoption that are hardly being carried out in educational spaces and that determine the infrastructures and educational systems in which innovation in technological mediation processes is key.

Far from any deterministic vision, thinking of ICT/NTIC (Information and Communication Technologies/New Information and Communication Technologies) not as an element that should guide society, but as a fundamental resource that must be
put up to date service of development and, therefo-

              re, of education, it is essential to change traditional
              schemes in digital immigrants, mainly in those who
              are dedicated to teaching, and also to continue pro-
              moting other types of skills in natives to reduce the
              gap, which could reach a non-inflection point (“hard
              gap”), since social trends suggest that the closure
              process is not accelerating or structural inhibitors
              are not being abated, which are having a negative
              impact on education (Castro, D. & Sánchez, A.,
              2013).

For Samioti (2021) in his study “Emergency re-

              mote educational challenges during COVID-19: the
              case of secondary school teachers in Greece”, some
              of the recommendations he presents include the in-
              tegration of equity principles in educational policies
              and a change in the approach of teacher training.

According to the ECLAC-UNESCO report

              (2021), the responses that the various countries have
              implemented to the pandemic have shown that there
              are innovative initiatives and promising practices, as
              well as important advances in record time to gua-
              rantee the continuity of learning. In addition, it is
              observed that national education systems face sys-
              temic problems and challenges that require the appli-
              cation of medium- and long-term strategies based
              on the 2030 Agenda and SDG 4. For his part, Ca-
              rranza (2018) considers technologies as a paradigm
              of change in education, leaving aside that, if these
              are not used under a planned and organized didactic
              approach, the results can be counterproductive.

García (2001) cited by Jiménez Villalpando et

              al., (2019) recognizes the need to promote more re-
              search that contributes to the understanding of the
              phenomena inherent to the teaching-learning pro-
              cess in distance and hybrid education students. Well,
              although some analysts believe that “Internet access
              has equalized the conditions in the educational sec-
              tor, giving learning opportunities to anyone who has
              a computer” (Villa, 2022 p. 40) it is true that, in re-
              cent years, there has been an extreme acceleration in
              the adoption and use of digital educational products,
              but there are still many problems to be solved in the

system.

In this sense, hybridity offers areas of flexibility
since it is a learning space that merges four contexts:

school, face-to-face, virtual, and real. The flexibility
inherent in the approach of a student-centered pe-

dagogy will ensure that teachers and students can
personalize learning materials and adapt them to the
characteristics and needs of the students, the con-
tent of the courses and the objectives of learning
experiences (Area Moreira, et al., 2022). Although
the experience of flexibility shown in the previous
figures occurs in an emergency context as a respon-
se to a contingency, the process of adaptation and
educational transformation maintained in post-pan-
demic has to do with digital skills, infrastructure,
the geographical, cultural context, and some aca-
demic optimism as an act of co-creation described
by Schwabsky, et al., (2020) focused on small-scale
change.

V. CONCLUSIONS

In the particular context of the High School BTG
as shown in figure 8 “Schematization of environ-
ments, processes and procedures”, the application
of technological tools are added to the set of intangible
elements that characterize and schematize said edu-
cational space, where the processes, procedures and
environments of an institution that aims to integrate
processes of innovation and educational manage-
ment are graphically synthesized and listed, by dea-
ling not only with emergency remote teaching, but
also betting on a model that integrates the learning
of the Covid-2019 post-pandemic context (figure 9)
and accepts the challenge of offering quality educa-

tion, beginning this process by identifying its com-
ponents and interaction, which allows it to develop
efficient procedures to achieve said objective.

The teaching-learning process in its nature is
changing, going through and reducing the educa-
tional gap that allows citizens to be brought closer
to processes of social mobility in Mexico requires
spaces (institutions) that know what is what in terms
of educational tools and solutions are within their
reach and what is needed to generate such opportunities that represent an improvement in the quality of life, where education is the only answer, accessing it is the challenge, not in a disjointed effort, but as part of the entire educational system.

In this sense, Moreno Castañeda (2022) mentions that education is a complex process of transmission and cultural recreation that occurs in all areas and moments of our lives, education is a process of diverse interactions with reality, with knowledge and especially between people, people who start with oneself, a process that is inherent to humanity in all its times and scope.

Understanding innovation in education as a transformation of essential educational relationships for the purpose of improvement also adds to the notion that educational quality does not depend on the modality, because although technology-mediated education that has pedagogical support and aligned to the a specific context can be of quality and sustainable over time if processes are designed that allows this adaptability and the educational system and the social context in which it is lived are considered.

Understanding how to transit these processes of innovation, flexibility, mediation and transformation specifically from educational institutions as the spaces where they are developed, part of the identification and diagnosis of the organizational structures themselves, mapping and systematizing elements, components and tools so that this mediation is understood, achieved and improved is part of what this case study aims to present.

The High School of El Grullo (BTG) by innovating in the management of its processes and laying the foundations for educational multimodality will be able to maintain educational quality in innovation, adaptation and implementation in technology-mediated learning processes that will allow it to face to various types of contingencies typical of its context such as seismic phenomena, hurricanes, and environmental contingencies, in addition to health.
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