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TECHNOLOGICAL LINKING NETWORK AS A ROUTE IN COLLABORATIVE ENVIRONMENTS

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INTRODUCTION

The year 2020 brought with it complex and challenging changes in education, due to the Covid19 pandemic. The educational institutions were closed, and the academic work in the classroom was moved home, a situation that had a significant impact on the forms of communication, and on the socio-emotional accompaniment of the families. What gave light to a continuous training and updating of knowledge, so that teachers could face new challenges and use technology pedagogically. In this sense, Sunkel (2013, p.44) points out that it is important that teachers learn to manage computer equipment, and use them for educational purposes; that is, that they can incorporate them into their daily role, which requires understanding the new specialized culture and expanding their educational horizons.

Based on these considerations, the author makes it clear that, in the educational field, all actors must be trained in ICTs, because the use and mastery of tools for techno-scientific mediation implies the existence of complex skills in the development of a digital culture, that facilitate the opportunities to take advantage of resources, for the benefit of social globalization and to articulate to the new forms of communication.

Technology-mediated education has transformed the teaching paradigm and expanded the possibilities of access, so adaptability to this process is needed, to assertively provide processes of social interaction, breaking barriers of time and distance; as a new training modality, more in line with the mechanisms of interactivity and interconnectivity.

DEVELOPMENT OF EDUCATION IN EMERGING CONTEXTS

The realities, challenges and changes, call for changes and readaptations of attitudes on the part of the teaching staff, which contribute to the creation of challenging, authentic and innovative experiences and initiatives, ensuring teaching practices supported by didactic resources framed in new integrative visions. (Gonzalez, 1999, p.1)

Regarding the linking and use of technological mediation tools, to establish integrative and resilient communication processes, Torres and Cobo (2017) assert that they eliminate barriers and distances, and turn the planet into a global village that makes that effectively we are all neighbors, perceiving the true role if they are used correctly. Therefore, it is not about increasing the intensity of the use of technology for the sole reason of doing so, but rather, it is necessary to be clear about the benefits that they could bring to the educational field, to ensure that teachers, students and parents become familiar with new resources and digital challenges. In this sense, they acquire skills to search, select and build knowledge collaboratively.

Given this scenario, technologies promote collaborative work environments, where the teacher assumes a role as facilitator of resources that allow parents and students to explore and develop new knowledge in a more effective, responsible and committed way; becoming a powerful social-synchronous communication channel.

These transformations have generated substantial changes in the educational process and as a whole; particularly in the new forms of interaction, expansion of spaces and adoption of new methodologies, pedagogical decision-making, in terms of communication channels and the selection of resources to use, which leads us to inquire about the impact of this process between teachers and parents, through the new platforms mobilized by teachers.

ASSERTIVE RESILIENT IN THE EMERGING EDUCATIONAL CONTEXT

When referring to assertive resilience, as an integrating perspective in diverse contexts of education, it is necessary to start from the perception of considering that the school life is a space for the promotion, recognition and appreciation of the complex realities of each educational actor, which they are related to the existence of human beings in mutual interrelationships of continuous constructions of knowledge, experiences, and knowledge that come together and are part of the transformation of their surrounding environment.

Assertive resilience respects otherness, is multisensory and open to new sensorialities, it is a path of self-transformation based on self-knowledge, valuing creativity and is open to new logics. Its purpose is the understanding of the present world from the imperative of the unity of knowledge. His interest is the dynamics of action and is based on the existence and perception of different levels of reality, on the appearance of new logics and on the emergence of complexity. In this order, complexity gives a more inclusive look that seeks, through a holistic and complex posture, to investigate and discover the multiple manifestations with which phenomena appear to us (Rojas, 2019).

Mantilla-Falcón, Miranda, Ortega, and Meléndez (2020) state that there is no single model that is suitable for any educational context, so the hybridization or combination of parts of several of them is proposed to develop its full potential and adapt to the needs of the students (Fernández-Río, 2016).

It is a linguistic environment, on which the meaning and value of an existing situation considered depend; it is experienced in a physical environment or appropriate situation, in which a fact is reflected; order of composition or fabric of a discourse, of a narration, even, is defined as a union of elements that are linked and interweave realities. (Hernández, Guerrero and Tobón, 2015).

The emergent context is seen as everything that surrounds a learning situation, not the learning itself, but directly affects the process, in a decisive way, which affirms that the social context has more power in this field than beliefs. and attitudes. It can be systematized through flexible techniques and also allows for the collection and processing of data in a creative and authentic way. From this perspective, the teacher becomes a researcher immersed in the field of study and his observations approach the data, considering both his interpretation and that of the other subjects involved, in order to strengthen the understanding of the social phenomenon that is desired. understand or study. Considering the importance of "the actions and meanings of the participants". Bonilla and Lopez (2016).

The construction of pedagogical knowledge, as a complex and dynamic entity, must start from the diversity in its conceptions and assume that theory and practice are instances of construction and legitimation of knowledge. Reflection resignifies it and socialization makes it consistent. The contexts contribute to its configuration and the everyday with its multipresence in social life originates a knowledge that must be recovered through reflective thinking (Díaz, 2005).

PROPOSAL FROM THE RESILIENCE MODEL

Schavino y Villegas (2010) They show that transcomplexity is a new way of producing transdisciplinary knowledge, adopting an open, flexible and unfinished, comprehensive and multivariate position, where the qualitative, quantitative and dialectical complement each other in a synergistic relationship, configuring

a multidimensional epistemic matrix. Adding that it is an emerging investigative worldview, whose essence has to do with a polydiverse reality, which transcends the classic subject-object disjunction and opens a range of constitutive sources of complex reality.

It is significant to point out that, in the face of this emerging situation, emanating from the outbreak of the COVID -19 pandemic, the members of the educational community of the institutions of the municipality of Sincelejo - Sucre, Colombia, were forced to venture into the new digital culture. In the case of teachers, they were allowed to get involved in new pedagogical practices mediated by information and communication technologies, use virtual mediation tools to be in contact with parents and thus strengthen educational processes. As for parents and students, approach spaces for interaction to keep in touch with the pedagogical processes and progress of their children's learning.

Barrera (2018) in his approach, mentions that virtual platforms have produced significant changes in education through ICT information and communication technologies, because through them new strategies are created and the use of synchronous media is promoted and asynchronous. Consequently, the challenge of the pandemic situation prompted teachers to opt for the meet platform, Microsoft teams, YouTube channels, WhatsApp, Classroom, Moodle, among others, as the main means of communication, to interact and exchange pedagogical processes with parents. and students.

The new technologies must be at the service of education to dissipate the social gaps that have been generated by the lack of economic, logistical and digital culture resources. Therefore, technology opens a new door for knowledge, and ease of access to knowledge, information, and communication (Fajardo and Cervantes, 2020).

Before starting the course	When starting the course	In the middle of the course	At the end of the course
● Prepare the virtual classroom ● Analyze the characteristics of the participants ● Cover letter ● Schedule of activities Activities Forum	● Orient the participant on the platform ● Make the presentation of the course ● Explain the methodology and evaluation	● Introduce the topic ● Promote reasoned discussion ● Guide the activity ● Correct, evaluate and provide feedback on the activity	● Fully evaluate the entire process ● Assess participants individually ● Evaluate the group in general ● Make the final report and improvement proposal

Table 1. At what point does the resilience model come into action and how?

Source: self made (2021).

The structured and intentional integration of a training proposal (activities, assessments, content and resources) to achieve learning objectives or skills, through the mediation of technology facilitated by a platform or LMS and other ICT tools for communication and construction of knowledge individually or collectively and that may or may not have the dynamization of a virtual tutor.

For the development of the resilient planning process, and address assertive environments in situations of changes in the educational context, the following questions are based:

PHASE 1- QUESTIONS - STARTING POINT IN ASSERTIVE RESILIENCE PROCESSES

What does it mean to teach in virtuality? How can I take advantage of the content

and strategies that I use on a daily basis?

What tools and strategies can I use?

How to keep students motivated and interested?

How to achieve a balance between the content, the strategies and the tools that I have?

PHASE 2- IMPACT VISUALIZATION: WHAT DO VIRTUAL LEARNING ENVIRONMENTS ALLOW ME?

- That students build knowledge individually and collaboratively.

- Cooperation and collaboration between teacher-students, students-students and student-teachers.

- The interaction.

PHASE 3- MATERIALIZATION OF THE IMPACT: WHAT CHALLENGES DO WE FACE TODAY?

Stage active and collaborative learning, the result of the different ways of communication and interaction offered by ICT Information and Communication Technologies.

PHASE 4: ROLE OF THE TEACHER IN MOBILIZING RESILIENT ENVIRONMENTS: WHAT DOES IT MEAN TO BE A TEACHER IN VIRTUALITY?

It does not mean changing the space of a traditional classroom to a virtual classroom, changing books for electronic documents, class discussions for virtual forums or the hours of attention to students for chat meetings or conversation forums.

It means finding new strategies that allow us to keep our students active even when they are in different places. promoting knowledge building and collaboration.

PHASE 5: RESOURCES, PROJECTION AND VISION OF TEACHING IN VIRTUALITY

Didactics is defined as the technique used to manage, in the most efficient and systematic way, the teaching and learning process. (Of the Tower, 2005).

PHASE 6: VISION OF THE INTEGRATIVE COMPONENTS IN A RESILIENT TEACHING MODEL

- The teacher

- The student

- The content

- The context

- Pedagogical strategies

PHASE 7: CLASSIFICATION OF INTEGRATIVE STRATEGIES IN A RESILIENT TEACHING MODEL

asynchronous

- Focused on the individualization of teaching

- Strategies for group teaching, focused on the presentation of information and collaboration.

- Strategies focused on collaborative work

- Asynchronous

- Assignment of work groups

- Make inquiries - surveys -evaluations

- Glossaries

- Forums

- Realization of different activities (formats) to upload to the platform and allow the respective feedback.

Synchronous

- Master classes

- Exhibitions

- Conversations
- Oral tests
- Consulting

PHASE 8: CHOICE OF ACTIVE, STUDENT-CENTERED METHODOLOGIES

- Project-based learning
- Problem-based learning
- Inquiry-based learning
- Game-based learning
- Case studies

PHASE 9: ROLES OF THE TEACHER, IN INTEGRATIVE ENVIRONMENTS FROM A RESILIENT TEACHING MODEL

9.1. Academic/pedagogical functions

Give information, extend, clarify and explain the contents presented

- Make sure students are reaching the appropriate level.
- Design activities and learning situations according to a previous diagnosis.
- Summarize in the group discussions the contributions of the students.
- Make global and individual assessments of the activities carried out.
- Manage learning groups that form for work on the network
- Incorporate and modify new materials to the training environment.

9.2. Technical Function

- Make sure that students understand the technical operation of the telematic training environment.
- Give advice and technical support.
- Keep in touch with the system administrator.
- Properly use communication tools.
- know how to direct and participate in synchronous and asynchronous communications.
- Use the software for certain purposes.

9.3. Organizational Function

- Set the course calendar, globally as specified.
- Explain the rules of operation within the environment.
- Maintain contact with the rest of the teaching and organizational team.
- Organize group work and facilitate coordination between members.
- Offer significant information for the relationship with the institution.

9.4. Guiding function

- Facilitate techniques for online study.
- Give public and private recommendations about the work and its quality.
- Make sure students work at an appropriate pace.
- Motivate students to develop activities.
- Inform students about their progress in the course.

9.5. Social function

- Welcome students participating in the online course.
- Encourage students to expand and develop the arguments presented by their peers. Integrate and conduct interventions.
- Encourage and encourage participation.
- Propose activities to facilitate knowledge to the participants.

PHASE 10: WHAT IS IMPORTANT IN INTEGRATIVE ENVIRONMENTS FROM A RESILIENT TEACHING MODEL?

The teacher must evaluate very well the material that will be delivered to the student.

- Greater time in planning

- Access to student contact information

- Respect delivery times and evaluation and return times

- The strategies used by teachers for years are easily adaptable to the tools and resources offered by virtual learning platforms.

- It is necessary for the teacher to assume a new role in the virtual platform and become a facilitator of learning

- Strong relationship between need and appropriation.

- It is not possible to only try to transfer to the virtual platform the materials and activities that were used in the face-to-face classroom, but rather we must develop multimedia supports that integrate audio. image, text and, if possible, interactive, as well as activities that promote collaborative learning.

- It is important to clarify that the didactic strategies by themselves do not generate knowledge and the virtual platform by itself does not create an attractive learning space, what makes the difference is the presence of a facilitator who mediates the themes of a course with strategies creative teaching and use. efficiently, the tools offered by the platform.

- Use tools you know, don't go at the speed of technology.

- Take advantage of the tools offered by the University and the accompaniments that are available to you.

- Ability to adapt and constantly experiment.

- Have patience, you will gradually gain experience in strategies and use of different tools.

- Ask for advice if needed regarding any issue related to the use of the tool to be used.

CONCLUSIONS

The social, economic and political changes that have occurred so far in 2020 and 2021 have configured a new educational reality that is distinguished by its provisional nature, the dynamism of organizations, the acceleration of the transformations of knowledge and the rapid modification of the attitudes of the educational community. The contemporary educational context, characterized by the flexibility and heterogeneity that define global society, requires teachers to adapt to professional profiles resulting from a panorama radically different from the immediate past of science and letters. The demand derived from the introduction of Information and Communication Technologies (ICT) in teaching and the need to respond to the exponential advance of knowledge that, at the same time, become unstable references, require a redefinition of the teacher figure.

This process has led us to adopt a flexible, technological and structured approach, with the adaptation of ICT, helping to complement and reinforce the role of communication in the teaching exercise, but also enable new modalities in the teaching-learning processes and access to new sources of information and knowledge. The management and integration of information and communication technologies in teaching. This requires the teacher to adopt a new role as a guide or counselor in the students' learning process, teaching them to search for information,

to have criteria for their selection and to transform said information into knowledge.

As Salinas (1999) rightly points out, everything leads one to think that disciplinary knowledge and intuitions on how to teach will not be enough to achieve teaching objectives and, in this sense, the role of the teacher changes from the new circumstances derived from educational environments. in the global society, what it generates in those who do not have access; gaps, social and digital.

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