

Reading comprehension and technological mediation in public education of the Basic Level in Colombia

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Abstract

This article presents the results of the research Technological mediation and reading comprehension in official basic education in Colombia, carried out with the aim of knowing the contributions of technological mediations in the processes of comprehensive reading in students of the basic level of the public sector in four cases located in different regions of the national territory. For this, Action Research was used as a method involving the reflective and permanent participation of teachers and students throughout the process, based on the model of Restrepo (2006), deconstruction of practice, reconstruction of practices and assessment of the effectiveness of practice; for which the main categories of analysis and qualitative construction were comprehensive reading, contextualized mediation and ICT. In short, the results confirm the value of digital educational resources in comprehensive processes given the successful relationship between ICT mediation and motivation by reading processes, including textual relationships linked to the interpretation of texts.

Keywords: Reading, Comprehensive, Contextualized mediation, ICT.

I. INTRODUCTION

The development of Information and Communication Technologies (ICT) has been key in the development of education and all sectors, which has meant transformations in teachers' practices given the wealth of methods and resources available to support teaching processes and in general to energize educational environments.

Within the digital educational resources available to contemporary education, the concept of text has also had important significances, in this sense Ripoll (2021) highlights the role of electronic texts since they include navigation and interactivity

tools in their content, enriched with the articulation to multiple sources and textual forms to favor the reading process and facilitate the search and access to the text and its relationships.

This same vision of the change in the dynamics of the processes of reading and writing is studied by Ferreiro (2001) who analyzes how these changes occur with or without the intervention of technology, an example of this is the evolution that writing has had from the Middle Ages to the present, from coding to the media and forms of meaning. With the above, it should also be noted that reading today is done differently, with the development of the means through which it is

read, the use of screens and unlimited access to information, so the teaching of reading must consider these new dynamics. In this same sense, in terms of Cassany (2003), new relationships with the text are implicated, new textual typologies that demand comprehension processes ranging from literal reading, inferential reading to reaching a critical level that implies the reader's conscience in the face of this new dynamic, on which Gordillo and Flores (2009) have also studied.

In the same way, the concept of interpretation linked to the comprehension of reading is proposed, defining this process as an objective capacity to identify what is communicated by the writer and his communicative intention. This vision involves raising the concept of understanding as a process that takes as a principle the value of objectivity in the same interpretation, but also the reader's ability to identify the writer's both what he communicates and his purposes in communication (Vanegas et al. 2022). Pérez (1988), had already proposed that reading is fundamentally deciphering a message from the integral understanding of it.

For González (1993), reading also surpasses the literal decoding of the message, since it considers it a matter of communication and personal relationship between the reader and the writer, where emotions are manifested and involved, that is, reading is a process that is enriched by the reader's experience and that enables access to knowledge. However, this knowledge may be greater or lesser according to the reader, his experience, subjectivities, disposition with the text and the strategies he uses to appropriate what the reading communicates, as expressed in (Muñoz & Ocaña, 2017; Nieto, 2006).

Thus, it is worth noting that the reading process has as its founding purpose the understanding of the text, it means that more than the identification of the textual messages offered by the text, understanding it implies assuming a critical position of it, however, recognizes that this process also integrates the identification of the central ideas, the reading speed and the recommendations proposed by the text. In this dynamic, both formal and analytical elements can be considered in reading, the first of them associated with textual decoding, which includes

agility and ability to do so; and the latter associated with the identification of the communication implicit in the same text.

As a basis for these visions, Solé (1998) had stated that reading meant a dialectical process between the text and the reader, this intersubjective relationship, recognize intangible elements associated with the reading process that affect what is understood, reading is also analyzing these relationships, because the reader approaches the text from his experience, emotions, previous knowledge, principles, etc. These elements affect what is understood in this dialogic relationship.

Therefore, Solé (1998), proposes the teaching of reading from strategies that require intervening in the process before, during and after the experience with the text. That is to say that prior to the process the teacher must attend to these experiences, explore expectations, inquire for anticipations and previous knowledge, interpret the images, titles, in general, approach the content of the text with the first impression of it. Later during the reading, it is necessary to dialogue with the text, interrogate it and finally after reading establish all possible intertextual relationships, question the text and assume positions in front of it.

Understanding the value of the component and emotional in the reading process Solé (1998) theorizes about highlighting the role of emotions, affectivity, purposes and life experiences of the reader in what is finally understood of the read. All this, from the widely studied relationship between thought and language, already highlighted in Monroy and Gómez (2009).

Therefore, Sáez (2010) raises the need to overcome the instrumental vision of text and reading, so he argues about the value of hypermedia texts and the use of technological tools that allow students to read in the classroom the texts that are part of their daily life and complexity in the technological world they integrate.

With regard to the process of technological mediation, the understanding of the use of ICT tools is raised, Riveros and Mendoza (2005) highlights the proximity of these resources with students, given the use and proximity of these resources in the daily lives of people, in this sense,

Sunkel et al. (2013) highlight the urgency for incorporating these resources given the need to reduce the digital gaps that have been created in our context, but also as a mechanism for revitalizing teaching, especially in the reading experience of students at basic education levels, where public education presents increasingly complex disadvantages.

2. MATERIALS AND METHODS

For the development of this research the qualitative method was implemented, in the understanding of the objectives of the work, associated with the search for the understanding of

socio-educational phenomena, from a hermeneutic perspective, this vision of reality and perspective of generation of new knowledge is based on the approaches of Hernández (2014) for whom this method focuses on the study of the quality of what is studied, rather than the measurement of quantity relationships. Similarly, Hernández (2014) highlight that qualitative research, as expressed in this case, investigates the qualities, characteristics or attributes of the object of study, as illustrated in Figure 1.



Figure 1. Qualitative research

This perspective recognizes the value of subjects in the understanding of realities, from intersubjective processes (Vanegas, Gamboa and Gómez, 2022), that is, it is the actors' view of their reality, supported by scientific knowledge or as a scenario for reflection and generation of new knowledge. In short, this model, in the light of Taylor and Bogdan (2000) produces descriptive data originating from the participants and the observable behaviors of individuals in different dimensions.

With regard to the type of research, the Pedagogical Action Research (IAP) model was used, proposed since the proposal of Restrepo (2006) to the extent that the final claim of the work focuses on the possibility of transforming pedagogical practices of teachers that favor the

reading comprehension of students at the basic level in public schools, models where the active participation of the study participants is decisive, in the light of those expressed by Creswell (2012) for whom such participation is committed, complete and open, so that in each phase of the work this dynamic demanded techniques of participation and reflection that would allow the consolidation of innovative pedagogical proposals that integrate tools and environments mediated by ICT in the teaching of reading.

Regarding the categories of analysis, the work focused on the understanding and analysis of comprehensive reading, contextualized mediation and ICT. The first of them refers to the processes of interpretation and reading in its three levels referred to in the introduction, the second to the

mediation of teaching by environments designed with digital educational resources and the third with information and communication technologies, understood as tools applicable to the field of education.

Finally, the work was carried out in a spiral model designed in three phases, from what was silvered by Restrepo (2006), namely: deconstruction of practice, reconstruction of practices and validation of practice effectiveness, as illustrated in Figure 2.

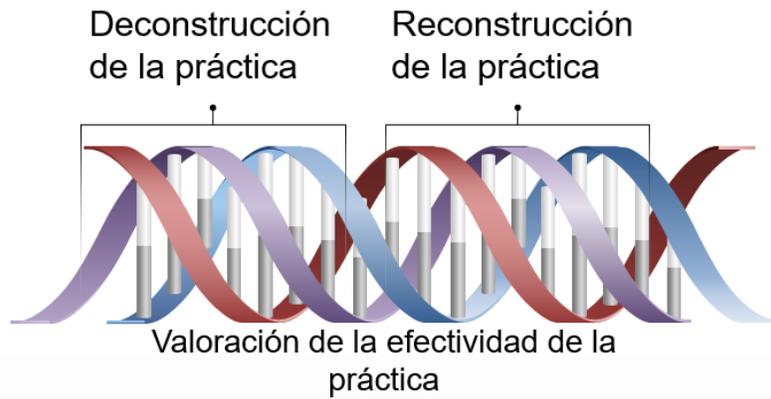


Figure 2. IAP model.

Source: Own elaboration based on Restrepo (2006).

3. RESULTS

The results of the study are synthesized according to each of the phases of the research as presented below.

3.1. Deconstruction phase

This phase focused on the analysis of the reading comprehension processes of students of different grades of basic in the institutions that participated in the work, which are illustrated in Figure 3.

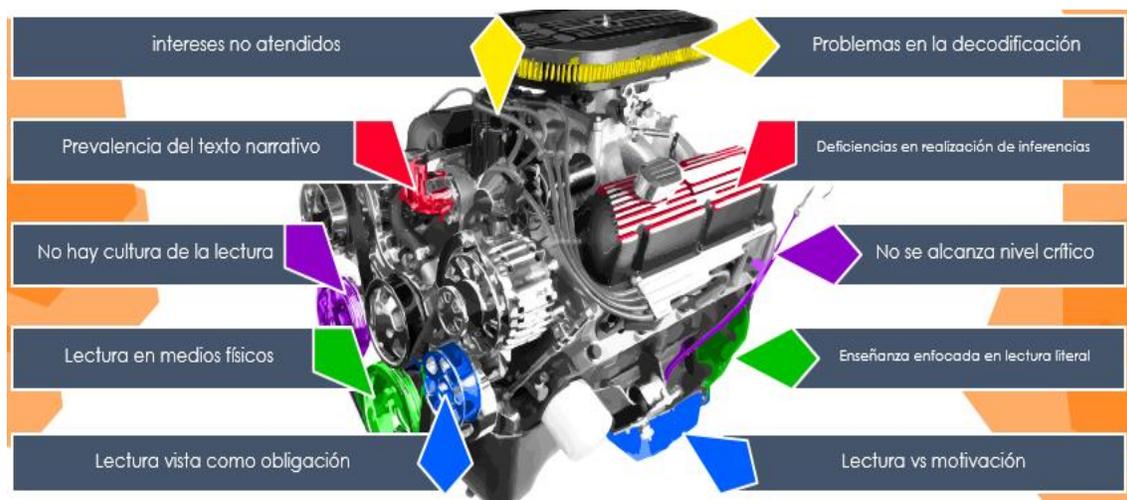


Figure 3. Reading comprehension in Basic students.

Within the relevant aspects in this exercise, and after establishing triangulations in the different schools participating in this phase, it allows to establish common problems, as indicated in Figure 3.

In the first place, during primary education there are visible problems in the decoding of texts, which is reflected in low rates in the reading of the literal level, despite this the most common approach in the cases analyzed. In the same way, and as a consequence of the above, included in higher grades of the level analyzed, there is little development of the level of inferential reading in students, which is reflected in the little capacity to perform analyses that imply deductions from the information present in the text. Finally, the level of critical reading is also poorly developed in the participating population.

In this exercise, it was possible to identify, as conclusions of the reflections generated in this phase, the little motivation that the reading space represents for students, which is seen as an obligation, a category that is related to the few dynamics that are generated to identify and consider the interests of students, as well as the dynamization of the media through of which it is read, since physical media prevail, which does not give rise to new tools and mediations from the spaces and technological resources that are related to these same interests.

In the practices analyzed, and in correspondence with the research reviewed, there is prevalence due to the use of narrative text in basic education, for which there is provision of physical texts in most schools of this typology.

In short, it is pertinent to explore new textual typologies and mediations to advance in the motivation, interest and dynamization of a reading culture from the enjoyment of the text, considered fundamental requirements in any purpose to advance in processes of reading comprehension, towards which the second phase of the work was oriented.

3.2. Reconstruction phase of pedagogical practices and assessment of effectiveness

This phase is based on the need to generate mediations aimed at favoring the motivation, interest and participation of students from their reading interests through the design of digital educational resources that help in this purpose in the school, which considered context and culture.

In this sense, the design of the Digital Educational Resources (RED), integrated shared and collaboratively built principles such as interactive capacity, integration of texts and dynamic resources and friendliness of content and resource. Thus, these resources focused on the processes of reading understanding, facilitate autonomous, collaborative and meaningful learning of students, considering that these represent vital transformations in pedagogical practices associated with the teaching of reading.

This design was supported by free applications such as Genial.ly to facilitate the incorporation of collaborative tools such as gamifications, infographics, videos, audiovisual material, among others.

All of the above was systematized and permanently reflected with the participants to analyze the impact on the transformations of pedagogical practices and reading comprehension processes, in addition to the possibilities of dynamization of the learning environments fostered as a result of the participatory constructions of the work.

In this way, it was demonstrated how the use of ICT as mediation tools for reading led to motivation for learning and in general for reading processes, important facts in the learning of all areas of knowledge, connotations that were evident in the implementation spaces given the recurrent references to curiosity factors.

Finally, the process of final assessment of the effectiveness of the practices, allowed improvements in the understanding of students at all levels, and especially in the disposition, attitude and motivation towards the reading process, emerging categories in this work as aspects related in an important way to reading, which highlights the relevance of the use of ICTs

as a mediation of reading and as a mechanism for effective transformations of pedagogical practices.

4. CONCLUSIONS

Among the most relevant results that were generated in this investigation highlights the possibility of contextualization of the strategies mediated by ICT that were designed within the framework of the work with IAP, a matter referred to by Ore (2018), as a positive aspect given the significant value for the student in the medium that adds value in the motivation and participation of students in their own learning process.

In this sense, for Monroy and Gómez (2009), the mediation process starts from the possibility of generating in children mechanisms of representation of the text, its ways of meaning, understanding that we have multiple ways of approaching these representations, so that each reading exercise has the personal stamp of the reader and the subjectivities that imply it. In this scenario, the work allowed us to reflect on the need to recognize readers within the scenario of strategy design, joint reflections and integration of particular interests.

This exercise of implementation and final reflection of the effectiveness of mediated practice demonstrated the effectiveness and relevance of ICT-mediated activities in the transformation of reading teaching in basic education, from the experience of the schools studied, with special improvement in the levels of literal and inferential reading, of greater development in the educational level addressed, all this considering the determining relationships that have motivation, interests and interaction.

Finally, the correspondence of the study with what has been pointed out by the studies carried out in the field, as is the case of Camarillo et al. (2021), for whom the first of them associated with fluency, understood as a determining skill in the processes of coding and literal reading and linguistic comprehension, associated with language and its meanings in the contexts of the text, is highlighted. with which the most complex supports of understandings that bring the

inferential and critical intertextual levels closer together.

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