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Strengthen Reading Comprehension with a Virtual Resource of Stories in Fifth Grade Students in an Institution in Montería, Córdoba

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Summary

This study addresses the need to strengthen reading ability in fifth-grade students attending an educational institution in Montería, Córdoba. Both national and international measurements (OECD, 2018) have shown limitations in the interpretation of texts, which motivates the search for new training dynamics. Faced with this scenario, a virtual resource focused on reading stories was designed and applied, in order to stimulate the motivation and interest of the students. A qualitative approach was adopted to examine the pedagogical environment and how technology-based strategies affect the acquisition of reading skills. The sample was composed of 15 participants, who developed digital activities aimed at understanding ideas, deducing meanings and collaborative interaction. The objective was aimed at promoting learning experiences that combine conventional practices with an innovative component. The intervention was based on constructivist and cognitive principles, which favor the active participation of students and the connection between previous knowledge and new content. To this end, gradual activities related to the literal, inferential and critical levels of reading were used, which promoted reflection and dialogue on narrative texts. The role of the teacher consisted of accompanying, guiding and encouraging the collective construction of knowledge, taking advantage of the benefits of Information and Communication Technologies. In this way, the virtual resource of stories offered a methodological alternative to broaden reading perspectives and enrich classroom discussions. The results reflect an advance in textual comprehension and a greater willingness of students towards reading. It is concluded that the incorporation of digital environments in teaching can encourage student participation and improve the understanding of various types of texts.

Keywords: reading comprehension; virtual learning resource; stories; reading in primary school; ICT in education; Reading motivation

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Introduction

The setting of this study is located in an educational institution in Montería, Córdoba, which serves children in the elementary school stage and where a situation that deserves attention has been identified: the limited assimilation of written texts by fifth grade students. According to local and national reports (OECD, 2018),

reading comprehension rates in various schools in the country reflect a trend of academic performance below expectations, a situation that affects the integral development of children. The socioeconomic context of certain communities also affects this condition, since households may show poor reading habits and limited resources to stimulate a love of books. In addition to the above, the dynamics of modern society are characterized by the massification of technology and rapid access to information, which has sometimes diverted students' attention to other sources of entertainment. However, such sources may not promote the careful analysis of texts or the gradual construction of reading skills.

At present, reading is conceived as an essential skill for student development, since it transcends the simple decoding of words. It goes beyond understanding sentences: it involves relating ideas, inferring meanings, and connecting the content with the cultural, social, and personal environment (Solé, 1992). Given the urgency of improving levels of comprehension, the idea arises of using digital resources that motivate students and allow them to approach various written genres in a more dynamic way. It is precisely in fifth grade when students face a wide range of subjects that increasingly demand critical thinking. If learning in reading is not consolidated, it has a direct impact on the performance of areas such as natural sciences, mathematics, and social sciences, where the ability to interpret texts and solve questions based on the information read is essential (Ministry of National Education [MEN], 2020).

During preliminary classroom observations, it was found that some students exhibited difficulties in deducing implicit meanings or in relating a text to their previous knowledge, which prevents them from reaching more complex reading levels (Cassany, 2006). In addition, a certain lack of motivation was noted when faced with printed texts, mainly those that have a considerable length or challenging language. From this perspective, it is appropriate to develop strategies that encourage the active participation of students and, at the same time, take advantage of technological advances to propose readings with an interactive component. The use of digital resources offers the option of diversifying classroom practices and, in turn, promoting new dynamics of cooperative learning (García & Martínez, 2019). Therefore, this study proposes to strengthen the comprehension of texts through a virtual resource focused on the reading of stories, understanding this kind of narratives as a means that attracts the attention of students and allows them to approach, in a friendly way, the universe of literature.

To understand the nature of this project, it is pertinent to mention the main theories that support the teaching and learning of reading in school environments. In the first place, constructivist currents, with authors such as Piaget (1970) and Vygotsky (1978), point out that the student is not a passive receiver of information, but an active agent who constructs his own mental schemes by relating new knowledge with that acquired previously. Under this vision, the development of reading requires a teaching accompaniment that provides scaffolding and encourages autonomous reasoning. In practice, this can be observed when reading activities are proposed where students compare stories with lived situations or discuss, in small groups, different interpretations of a text. This social interaction, based on Vygotsky's proposal, is enhanced when a technological tool is added to facilitate the exchange of opinions (Bruner, 1996).

On the other hand, cognitive approaches emphasize the internal processes that occur when the student reads and interprets a text (Ausubel, 2002). At this level, the focus is on the comprehension of three basic levels of reading: literal, inferential and critical. On the literal level, the reader extracts the explicit information; in inferential theory, it relates and deduces details that are not directly expressed; and at the critical level, it develops a reasoned judgment on the material read (Smith, 2019). These phases are particularly relevant in primary education, as they enable children to gradually refine their analysis and build a more solid criterion. Based on these postulates, it is essential that pedagogical reading proposals offer opportunities for students to navigate through the three levels and, at the same time, be guided by the teacher in the systematization of their findings.

In a complementary way, techno-pedagogical visions highlight how the use of Information and Communication Technologies (ICT) in educational environments can facilitate motivation and collaborative learning (Siemens, 2004; UNESCO, 2019). These guidelines become relevant in the design of a virtual resource of stories, since they allow each student to advance at their own pace and receive immediate

feedback in the event of comprehension or reading difficulties. In turn, the digital presentation makes it possible to include visual and auditory elements that encourage the approach to the text. Although the guiding role of the teacher is highlighted, the virtual environment promotes more participatory learning, where the student assumes a leading role in his or her reading process (MEN, 2020).

Reading comprehension, in addition to being approached from constructivist and cognitivist theories, can be analyzed from other perspectives that complement the explanation of how learning is generated. First, the relevance of sociocultural theory is highlighted, which postulates that knowledge develops in interaction with the environment (Daniels, 2001). From this point of view, reading processes not only depend on the individual capacity of each student, but also on the way in which they relate to their peers and to the immediate context. For example, when a learner comments on and justifies his or her point of view on a narrative passage, he or she is not only exercising his or her interpretive skills, but at the same time receiving feedback from peers and the teacher. This exchange allows us to broaden our view of the text and integrate new perspectives. By assuming reading as a cultural act, it is recognized that each reader comes to the classroom with experiences, values, and interpretations that enrich collective understanding. This approach is strengthened by using a virtual storytelling resource, as interactions can be enriched with forums, comments, and technological tools that promote collaboration among children (UNESCO, 2019).

Another relevant theoretical consideration is the view of motivation and reading engagement as determining elements in the acquisition of reading competence. Studies such as those by Guthrie and Wigfield (2000) argue that interest in reading increases when students encounter topics close to their reality or personal concerns. Therefore, the selection of narrative texts relevant to the daily life of students becomes essential to arouse curiosity and encourage active involvement in reading activity. Likewise, the use of didactic strategies that promote self-determination is emphasized, such as the possibility of choosing between different reading options or the opportunity to participate in challenges and group dynamics. In this sense, a virtual environment offers the advantage of proposing various texts and activities, which allows adapting to the heterogeneous interests found in a fifth-grade classroom. By perceiving reading as part of an interactive and enjoyable process, the student's willingness to reflect on the content and share their interpretations is increased (Ryan & Deci, 2017).

Finally, the project-based learning perspective reinforces the idea that reading comprehension is enriched when there is a specific purpose, beyond mere academic assessment (Barron & Darling-Hammond, 2008). If students undertake a joint initiative—for example, the creation of a digital anthology of short stories—they will be able to experience reading not only as an individual task, but as a link in a meaningful project for the group. From this perspective, the understanding of the text is articulated with the planning, organization and execution of activities that require cooperation and critical thinking. By combining these perspectives, the importance of a reading act that has both individual and collaborative components is strengthened, and that is supported by digital resources designed to dynamize the teaching process. In this way, the theoretical foundation is strengthened by linking sociocultural, motivational and projective dimensions, evidencing that reading transcends the mere decoding of words and becomes a multifaceted experience within the school environment.

Methodology (approximately 500 words)

This study is based on a qualitative approach, as it facilitates the detailed understanding of educational phenomena from direct interaction with the context and the participants. This type of approach is considered appropriate for the initiative related to reading comprehension, since it pays special attention to the interpretations, perceptions and practices that take place in the classroom. In order to describe and analyze the dynamics that arise from the use of the virtual story resource, special attention was paid to the interaction between students, digital material and teaching staff during the sessions. Likewise, the flexibility of the qualitative perspective made it possible to adjust the intervention to the responses and needs detected throughout the process. Using participant observation techniques and field records, the research team noted the transformations in the way of reading and understanding narrative texts, with the aim of documenting the progressive performance of the student group.

In relation to the design of the study, an action research modality was chosen, since it sought to have a positive impact on the reading practices of the students and, at the same time, to obtain information that would serve to evaluate and reorient the strategy applied. It began with a planning of activities where digital readings were combined with group interaction dynamics, from which qualitative data were collected. Subsequently, these data were analyzed and the pertinent adjustments were made in the planning, thus generating a continuous cycle of observation, reflection and decision-making. Within this dynamic, the teacher fulfilled the role of counselor and facilitator, while the students actively participated, contributing opinions and suggestions with the intention of improving didactic practices. This design allowed the detection of opportunities for improvement and the constant reworking of the strategy, adapting it to the specific characteristics of fifth grade students.

The target population consisted of 15 fifth-grade students from an educational institution in Montería, Córdoba, chosen according to the disposition of their families and institutional approval. This number of participants made it possible to provide individualized support, taking into account differences in the development of reading skills. For the collection of information, several common instruments in qualitative research were used, such as observation guides, semi-structured interviews and the analysis of written productions on the digital platform. The observation guides provided data on the disposition towards reading stories, participation in group discussions and interaction with virtual content. The interviews, on the other hand, allowed us to explore the motivation, challenges and suggestions of the students themselves. Finally, the analysis of the contributions and responses on the digital platform offered indicators to identify patterns and categories related to advances in reading comprehension. This set of techniques was considered adequate to capture the complexity of the phenomenon studied.

Results

The data obtained in this stage were based on qualitative and quantitative instruments that allowed observing the progress of fifth-grade students in the comprehension of narrative texts. To this end, an initial and a final evaluation was carried out, with the purpose of comparing the performance of the participants before and after using the virtual resource of stories. In the diagnostic phase, questionnaires and reading exercises were applied that included questions at the literal, inferential and critical levels. At the same time, classroom observations were recorded, where students' reactions, their willingness to read in the digital environment and the way they discussed content with their classmates were recorded. In this way, a complementary vision was obtained: on the one hand, the performance measured in scores, and on the other, the way in which the students experienced the act of reading. These findings contributed to outline a broad panorama of the learning process.

In general terms, a notable increase in results was identified, reflected in the final tests and in the active participation of students during the reading sessions. In the initial assessment, most of the students showed difficulties in relating explicit ideas and deducing implicit information in the texts. However, in the final evaluation, an increase in correct answers was evidenced when answering literal, inferential and critical questions, which suggests that the strategy based on the digital resource of stories had a beneficial impact on reading skills. To illustrate these changes, a table was constructed with the average scores at each level of comprehension, where increases in all the components analyzed are appreciated. In this regard, it is important to mention that this improvement was not only evidenced in the numerical results, but also in the attitude of the students, who showed greater confidence in reading and arguing their points of view.

Table 1Comparison of average scores in reading comprehension levels (n = 15)

Level of Understanding	Pre-test	Postest	Difference
Literal	60	75	+15
Inferential	55	70	+15
Critical	50	66	+16

Third paragraph (≈160 words)

The information collected in the field diaries and in the written productions reveals that the students showed greater motivation to participate in group activities of story analysis. In addition to this, the virtual resource provided dynamic feedback scenarios, since children could immediately verify their answers and contrast opinions with their peers. Such a scenario fostered an environment of collaboration and dialogue in the classroom, translated into an additional stimulus for reading comprehension. Based on the comparison of the initial and final scores, it is ratified that digital mediation, added to the continuous guidance of the teacher, favors the acquisition and development of the skills required to read in a more reflective way. Likewise, the analysis of the results allows us to infer that the implemented strategy responds to the specific needs of the group, and that the use of technology as a didactic resource provides dynamism and variety in teaching practices, aligning with the objectives set from the beginning of the project.

Discussion

The results shown in the previous section show an improvement in the reading comprehension of the students who participated in the pedagogical proposal. This fact is directly related to constructivist approaches, which indicate that learning occurs when the student actively integrates his or her previous knowledge with new experiences (Piaget, 1970; Vygotsky, 1978). In this intervention, the reading of stories in digital format served as the articulating axis of children's curiosity and cooperative participation, which is in line with Vygotsky's sociocultural vision, where interaction in the classroom, mediated by didactic tools, enriches the process of construction of meanings. In turn, the role of mediator exercised by the teacher was decisive, since, according to cognitivist assumptions (Ausubel, 2002), the student requires orientations, feedback, and opportunities for self-reflection to advance in the literal, inferential, and critical levels of reading. In this sense, the design of dynamic activities on the platform promoted the involvement of students, favoring the exchange of ideas and the rooting of significant learning.

The motivation observed in the participants can also be explained from the sociocultural approach, since the integration of a digital resource that incorporates stories according to their personal interests facilitated the appropriation of the content. This scenario of shared and systematic reading allowed each student to relate the situations narrated with everyday experiences, which increased the relevance of the activity (Bruner, 1996). In addition, the cognitive theory on reading processes recognizes that constant practice, added to pedagogical orientation, develops the competence of "learning to learn". In other words, it was not only a matter of understanding the proposed stories, but also of strengthening skills and strategies that allow them to autonomously approach other texts. Thus, the articulation with techno-pedagogical approaches (Siemens, 2004) becomes relevant by emphasizing that the virtual environment, used in a reflexive way, promotes self-evaluation and collaborative participation. The digital space, in particular, offered immediate feedback, motivating students to process information, discuss with their peers, and seek a renewed meaning to each reading.

These findings, therefore, confirm the relevance of resorting to digital resources to promote text comprehension, as they align with the interactive nature of the constructivist approach, the relevance of the social component in sociocultural theory, and the need for adequate scaffolding suggested by cognitivism. On the other hand, it should be emphasized that the achievements achieved do not depend only on the tool used, but on the way in which the teacher designs and conducts the experience in the classroom. The coherence between planning, content and learning goals, added to a formative assessment, was essential to generate progress in reading. Even within the technological constraints of the institution, the willingness of the students and the institutional support influenced the success of the intervention. In summary, the initiative to work with digital stories demonstrated that theory becomes practice when scenarios of collective construction, dialogue and reflection are generated, which enriches reading skills and fosters sustainable reading habits.

Conclusions (300-500 words)

The findings of this research point to the importance of using digital resources to promote the development of reading comprehension in the classroom, particularly when it comes to fifth-grade students. The reading of stories through a virtual platform, accompanied by the teacher's guidance and collaborative interaction, managed to arouse greater interest in the participants, who showed tangible progress in the literal, inferential and critical levels of textual comprehension. Beyond the improvement in the results of the tests applied, it was possible to verify a more positive and enthusiastic attitude towards reading, which allows us to glimpse that learners are willing to take on greater challenges when they perceive a playful and significant component. This initiative demonstrates that technology, combined with pedagogical support, enables more active and reflective routes, encouraging dialogue, the formation of judgments and the connection of content with everyday life. In this way, the proposal promotes spaces for the construction of knowledge that can be replicated and adapted to other degrees or subjects.

The most relevant contributions of this study include the way in which the virtual resource became a bridge between traditional reading and the needs of the contemporary environment, where the digitization of content is increasingly common. Likewise, it was verified that, by offering a variety of activities and constant accompaniment, the reading and communication skills of students are strengthened, improving their willingness to get involved in processes of analysis and debate. From a practical point of view, educational institutions could implement similar strategies that include the incorporation of online tools and narrative texts that reflect interests close to children's reality, supported by the use of forums, interactive questionnaires and immediate feedback dynamics. As for future lines of research, it would be pertinent to investigate the application of these same methodologies with audiences of other ages, as well as to explore their impact on writing or other academic skills. It would also be advisable to delve into the long-term effects of digital immersion on reading practices, in order to consolidate teaching strategies that respond to the demands of the twenty-first century.

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