

INFERENTIAL READING COMPREHENSION THROUGH A PEDAGOGICAL STRATEGY SUPPORTED BY VLO

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ABSTRACT

The development of the following article aims to relate the importance of forming the inferential reading comprehension competence in students in the rural area of Pitalito Huila, from a pedagogical strategy supported by a Virtual Learning Object (VLO). From this perspective, the conceptual and investigative description of different arguments that highlight the need to transform the teaching practice, by means of innovative resources and tools, which are at the forefront of today's society, is proposed. In this sense, the articulation of new technologies is established as a strategy to guarantee the promotion of interest and motivation towards learning and development of reading comprehension skills, which allow the student to obtain a favorable academic performance, approaching the requirements of the Ministry of National Education (MNE), in Colombia. In addition to this, the importance of the constructivist theory in this educational process is established, since it makes possible the identification of previous knowledge, to take them to the interaction with other knowledge, and thus, create new mental schemes, which contribute to the integral formation of the students.

Keywords: Reading comprehension, inferential, VLO, teaching, learning, technology.

INTRODUCTION

The teaching and learning processes of the current era, demand that educational institutions are geared towards quality, where students develop the different skills and abilities of deductive and interpretive reading, playing and interacting on the web, this enables the development (the applicability of knowledge in situations that arise in the context) of each of the subjects in everyday activities, in spaces such as the Liceo Sur Andino Educational Institution in the municipality of Pitalito Huila, in which it is important to articulate inferential readings in the language area, because the lack of this makes the subjects have a minimum performance in communicative, reading and writing competence (Garcia et al. , 2018).

Thus, it is worth mentioning that, according to Cisneros, Olave and Rojas (2010), inferential reading is “*any information that is extracted from the text and that is not explicitly expressed in it, besides being mental representations that the reader constructs, when trying to understand the message read*” (p.14). In this sense, inferential reading is based on what can be inferred from a reading that is not implicit or literary in it. Thus, it is necessary for fourth grade students to strengthen the inferential reading level they possess through the application of an VLO, as mentioned by Betancur and Mejia (2016), who state that; “Inferential processes have in common the possibility of constructing meanings from the interaction between the information given in a message and the contributions of the subject who understands it, during the use of different resources of the medium” (p. 7). Therefore, inference processes allow the development of skills to build or elaborate assumptions, based on the relationship with what is provided in the reading.

In relation to the demands of the nation, it is essential that teachers enable the innovation of practices focused on strengthening the teaching and learning processes, which lead to the development of dynamic and interactive teaching strategies that allow the achievement of this level of inferential reading, in which, through the activities and contents approached, the acquisition of knowledge is facilitated, awareness is raised about situations and phenomena of the environment, in order to ensure the common good of the educational community, for which it is essential to make an approach at the international, departmental and municipal level to understand the problems described.

Therefore, it is considered that for fourth grade children to possess competencies and skills that promote inferential reading, it is necessary to follow a constant process and feedback, this process properly addressed will be very useful to students throughout life, in the development as potential readers, as mentioned by Hoyos and Gallego (2017) “knowledge appears as a starting point in the activity and interaction, the game is an important resource for child development, it is an approach from the simplest to the most complex” (p. 34). Thus, developing knowledge through play makes it possible to strengthen skills aimed at enhancing inferential reading.

Thus, in this preparation, the incorporation of innovation methods should be related, taking into account that the educational center Liceo Sur Andino of the municipality of Pitalito - Huila, where the Virtual Learning Objects (VLO), contribute favorably in the development of inferential reading. Reason, for which the game and reading are fundamental vehicles, where the broad subject, interacts and deepens knowledge, achieves the interpretation of situations and transmits what is understood in a text, in which it is described that the game

has an educational value that allows the child to fulfill, act and discover himself, in a social and cultural context (Soto, 2019).

Thus, research in recent years has identified the importance of emphasizing teaching and learning processes for the strengthening of reading skills, where the potential of Information and Communication Technologies (ICT) in the promotion of reading habits through the generation of pedagogical strategies for the generation of knowledge in students that make it possible to be articulated in everyday actions. Therefore, Munoz (2015) states that reading comprehension through the use of ICT makes it possible to strengthen skills to solve everyday problems through the ability to interpret texts, in such a way that the negative conception of students regarding the use of technologies as pedagogical strategies implemented in the classroom is transformed, therefore, it is proposed that technologies are essential to address the different contents, in a permanent change, which make it possible to transform the teaching and learning processes in the different disciplines taught in the classroom.

On the other hand, Benavides and Tovar (2017) and Ochoa, Mesa, Pedraza and Caro (2017), define pedagogical strategies as elements that enable the potentiation of teaching practices in relation to reading comprehension, because, it grants innovative sequences and actions that approach school quality standards, which lead to the inquiry on the factors involved in learning skills for the analysis and interpretation of texts, from an interactive and participatory sequence. In another aspect, Gallego, Figueroa and Rodriguez (2019), establish the importance of minimizing the gap that exists between the integration of technologies in pedagogical strategies and the Basic Standards of Competences in Spanish Language, since, this interrelation facilitates the potentiation of formative activities that contribute to the improvement of reading competences in elementary school students. From this perspective, the structure of new classroom plans is promoted, with tools that are of interest to the entire educational community.

Given this, it is possible to glimpse the presence of a difficulty oriented towards the teaching and learning processes of inferential reading, where the data correlated by Corrales, Dussan, Borbon and Cordoba (2020) make known the results of the subscales in which the students' performances in the cognitive processes in the PISA2018 reading test are recorded, where the competence to understand, evaluate - reflect and locate information, of students from Latin America, countries not associated to the OECD, (Organization for Economic Cooperation and Development) and Colombia is measured; to give explicit meaning to texts, to integrate information and to generate inferences; where Colombia obtained an average

percentage of 51% in a minimum level (Level 2) of reading, this shows a development above the ability of Latin American students in the tests, because they have a percentage of 49% in a minimum level, however, Colombia's results decrease in comparison with the countries not associated to the OECD and the OECD, This means that it is essential to develop teaching and learning processes focused on strengthening reading skills in order to improve academic performance.

Likewise, students show low academic performance and school dropout, where apathy, lack of motivation and participation in the teaching and learning processes are commonly evidenced on the part of the students, which influences the perception and behavior towards the reading processes that do not enable the generation of skills and knowledge aimed at strengthening competencies in the area of language, Therefore, it is considered that these effects in the classroom are related to the lack of planning and design of innovative teaching and learning strategies that allow catching the attention, motivation and interest of students, in addition to taking advantage of the potential offered by ICT for the transformation of educational actions. Therefore, this research aimed to solve the following research question How does the implementation of a Virtual Learning Object as a pedagogical strategy allows the strengthening of inferential reading comprehension in fourth grade students in the rural area of the Educational Institution Liceo Sur Andino of the municipality of Pitalito Huila?

Thus, it should be emphasized, the need to identify the causes and effects that generate the identified problem, concerning the difficulties that students present regarding the skills required to achieve inferential reading, which requires teachers in the area of language to strengthen teaching and learning for the development of inferential reading through an VLO, in which it is essential to use resources that saturate the student's interest, in this case, the virtual technological resources that contribute to solve this problem, with the purpose of innovating-transforming the formation of future citizens, where the achievement of an integral formation of each one of those involved is expected, since the authors Sanchez, Perez and Perez (2020) state that "given the need to link the use of information and communication technologies and reading comprehension, the difficulties that teachers have, to be able to educate based on the development of inferential reading competencies, are observed" (p. 379), since currently a large part of the teaching population is not trained in the use of ICT tools, which makes it difficult to carry out teaching and learning processes that include these educational mediators.

Indeed, this research aims to propose a pedagogical strategy supported by a Virtual Learning Object to strengthen inferential reading comprehension in fourth grade students in

the rural area of the Liceo Sur Andino Educational Institution in the municipality of Pitalito, as the main objective, because according to the approaches of various authors, it is important to promote training sequences focused on the development of inferential reading in students based on the articulation of ICT tools. Hence, through the application of an VLO, it is intended to structure digital games with multiple choice activities, memory and reorganization games, relationship of characters with situations and crossword puzzles, which make it possible to evaluate inferential reading comprehension skills in students.

This is how, it is rescued that VLO have influenced for some time in the educational, cultural and social systems, as a means to learn, in view that technology is essential for students to develop in the various scenarios of daily life, by offering the possibility of accessing quality education, expanding the world, learning and creating (Ferreiro, 2019; Florez, Henao, Rios, & Sena, 2018). In addition, it is important to keep in mind that, for the development of inferential reading, the competence should be enhanced in an interactive and responsible way, emphasizing the motivation for the development of this level, in each of the activities to be carried out.

METHODOLOGY

The execution and development of this research, was directed towards the quantitative type approach, where Hernandez, Fernandez and Baptista, (2016) argue that “it represents a set of systematic, empirical and critical processes of research, which involves collecting and analyzing data” (p.35), which leads to the discussion and integration of the information, which allows making judgments focused on the solution of the problematizing questions of the research, which is focused on identifying the effect generated by the articulation of ICT tools such as the VLO, in strengthening inferential reading comprehension in fourth grade students.

Likewise, the research is of correlational type, since according to Abreu (2012) understood as a process that suggests the manipulation on variable one, that is, the didactic strategy based on the VLO answers the general question of the protocol: How does the implementation of a pedagogical strategy based on the VLO contribute to the strengthening of inferential reading comprehension in students of the rural area of the Educational Institution Liceo Sur Andino? To this extent, the implementation of instruments that make it possible to recognize the degree of alteration on the variables and the relationship of incidence of the independent variable on the dependent variable is established.

The development of the project is carried out with a control group, which is composed

of 30 students of the fourth grade of the morning session of the Educational Institution Liceo Sur Andino, who obtain acceptable averages in inferential reading comprehension. On the other hand, we work with the experimental group, which corresponds to 33 fourth grade students in the afternoon, from the same educational institution, with whom the pedagogical strategy supported by the VLO is applied, with the purpose of making a comparative analysis between the two groups, and to evaluate the effectiveness of the tool in terms of strengthening inferential reading comprehension.

The sampling developed in this research process is of an online probabilistic type, which according to the contributions of Sarcos (2018), allows the calculation of the participants through a quantitative calculation with a digital software that is used free of charge. Similarly, it is essential to take into account the arguments of Hernandez et al., (2016), who establish the selection criteria for quantitative sampling. From this perspective, an online probability sampling is carried out from the digital platform recognized as aem, defined as an online program for the calculation of the sample, which gives way to the approach of inclusion and exclusion criteria for the selection of the 63 participants in the research.

Inclusion and Exclusion Criteria

Inclusion Criteria

- ▶ Acceptable and insufficient level in the development of inferential reading comprehension skills in the area of Spanish Language, according to previous results in the subject.
- ▶ Sixty-three fourth grade students who present difficulties in inferential reading comprehension will be selected.
- ▶ Students who present a high number of failures in class are included.

Exclusion Criteria

- ▶ Good and excellent levels in the development of inferential reading comprehension in Spanish.
- ▶ Students who present a good performance in the development of inferential reading comprehension are excluded.
- ▶ Students with recognitions related to inferential reading comprehension.

Variables of analysis

The variables of analysis correspond to the nature of the quantitative methodology, which are directed towards a correlational research, since dependent and independent variables are delimited. For the development of the research, the dependent variable is established, in this case, inferential reading comprehension, which, from the arguments of Hernandez et al., (2016), is the one that presents some alteration or modification of the initial results. As for the independent variable, which has the tools to work on the dependent variable, it is recognized as the pedagogical strategy supported by the VLO.

Instruments for data collection

The development of the following section focuses on the description of the diagnostic test, survey, observation and post-test, as data collection instruments that allow identifying the learning of inferential reading comprehension in fourth grade students of the Liceo Sur Andino Educational Institution and their needs and interests for the design of a didactic strategy based on an VLO. To this extent, it is essential to describe the characteristics and systems of reliability and validity, with the support of experts who contribute with their observations to the adjustment of the instruments.

According to the theoretical contributions of Hernandez et al., (2016) the tests are a data collection tool applied to the population under study, with a series of measurable questions designed in a systematic way, which are directly related to the object of study, which are applied before and after the strategy. To this extent, the diagnostic test is implemented for fourth grade students in rural areas of the Liceo Sur Andino Educational Institution by means of approaches related to inferential reading comprehension, which allow diagnosing and evaluating the learning level of this competence in the population under study. The instrument will be applied by means of Google Forms, where the link will be provided to each student with an instruction on how to develop the questions.

On the other hand, the survey is considered as a tool that through a fieldwork that allows obtaining data from the population under study, where it is essential to inquire about the perception that the participants have about the analyzed phenomenon, making relation to themes and contents of importance and that have an impact on the problem solution (Bejarano et al., 2018). In this sense, this instrument is implemented to identify the interests and needs in relation to inferential reading comprehension in fourth grade students of the rural area of the Educational Institution Liceo Sur Andino de Pitalito Huila for the design of the strategy that will provide a solution to the problem under study. It should be noted that the questions

are multiple choice and are designed by the researcher, to be validated by five experts who analyze the form and content, and then, it is distributed through Google Forms, to facilitate data collection to the population that is receiving virtual guidance.

Finally, the implementation of an observation of the context and the behavior of the participants in an objective manner, in which situations are detailed and interpreted according to multiple-choice scale responses. For his part, Ascencio (2018), indicates that through this tool the recognition of the attitudes and behavior of the subjects during the implementation of the pedagogical strategy supported by an VLO. It is worth highlighting, that these perceptions are studied according to Gorenak (2019) from the awareness, affectivity, disposition, action and cognitive of the students in relation to the technological tools, in addition, this observation is done in five sections by headquarters which is filled out by the researchers in the spaces of implementation of the strategy.

Techniques of analysis and systematization of the information

Taking into account the perspective of the quantitative perspective, the parametric analysis is proposed for the processing of the data collected from the instruments, in this sense, the fundamentals of Quintero and Quintero (2016) are related, who define in this process is applied in studies that have a sample number greater than 20 participants, which includes the research protocol, since the cooperation of 65 students of the fourth grade has been established. On the other hand, it is essential to emphasize that the research is univariate, because it focuses on the manipulation of the dependent variable, which, in this specific case, refers to the learning of inferential reading comprehension. Therefore, a scalar level measurement is proposed, which is composed of numerical intervals, as reflected in the ICFES State tests applied in Colombia, where measurements are established with intervals from 0 to 100, 101 to 200, 201 to 300, 301 to 400 and 401 to 500, to evaluate student performance.

Within the non-parametric analysis processes, Juarez et al. (2002) argue that a study of the dependent variable is proposed in two stages, initially, when descriptive statistics are developed for the structuring of the results by means of percentages, frequencies and measures of central tendency by means of tables and graphic illustrations, with the purpose of responding in a tenuous manner to the research objectives. As a second phase, inferential statistics is applied, in which the independent variable is analyzed and relationships with the results are established. In addition, a statistical processing of comparison with a related sample is carried out in the problem, to highlight the level of incidence of this independent

variable on the dependent variable in two phases, at the beginning and end of the intervention, a process that is executed by means of a Student's t-test, which makes it possible to identify the value of the mean and check whether it is equal to that obtained in the national tests.

CONCLUSIONS

According to the related fundamentals, it is established that the VLO is conceived as a tool that allows the creation of interaction spaces, through a series of actions and activities that are fundamental to strengthen inferential reading comprehension, and at the same time, it is a resource that contributes to the transformation of the teaching practices implemented in the classroom. From this perspective, it is necessary to carry out a research work on the factors that intervene in the learning of text comprehension, with the purpose of proposing new pedagogical strategies that are at the forefront of today's society, which considers ICT as elements that are part of their daily activities. In addition to this, it is important that teaching practices take into account the needs and interests of the student population, so that their classroom plans generate a participatory and innovative environment.

From the above, it is deduced that the development of a pedagogical strategy supported by an VLO is an action that promotes the formation of an innovative teaching scenario, which focuses on the search for tools and resources that make it possible to contribute to the transformation of the traditional practice, which relies only on books and copies, which are no longer of interest to the student. In addition, the Liceo Sur Andino Educational Institution has the necessary equipment and conditions for the application of virtual classes, in which students interact with pedagogical audiovisual material, which is parallel to the cognitive functions of fourth grade students, who have an age range between 9 and 12 years old. Thus, the approach of a new way of teaching is considered as an assertive solution to the problems of inferential reading comprehension that are evident in the classroom.

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