Volume: 21, No: S5 (2024), pp. 258-273
ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

# The Impact Of A Pedagogical Intervention To Enhance The Communicative Skills Of 7th-Grade Students At The Filadelfia School, Colombia (2021-2022) 

Gerardo Osorio Marín ${ }^{1}$, Ángel Saúl Díaz Téllez ${ }^{2}$, Jennifer Mejía Ríos ${ }^{3}$


#### Abstract

This research used a quasi-experimental, explanatory, and longitudinal design to examine the effects of the pedagogical strategy known as Tenemos Potencial (We Have Potential) on the development of meaningful learning, reading, narrative writing, interpretive skills, and critical thinking skills in a sample of 40 seventh-grade boys and girls. The participants were assigned to two different groups, namely the experimental group and the control group. The findings showed a favorable influence on all factors assessed, increasing comprehension, cohesive articulation of ideas, and discretionary evaluation. Despite certain limitations, such as the lack of consistent control over variables and small sample size, the results of this study are of significant value to the field of education and shed light on the advantages of pedagogical interventions in strengthening communicative competencies, providing a basis for further research and the development of impactful educational initiatives.


Keywords: communication skills, significant learning, language, writing, reading.

## Resumen

Esta investigación utilizó un diseño cuasi-experimental, explicativo y longitudinal para examinar los efectos de estrategia pedagógica conocida como 'Tenemos Potencial' en el desarrollo del aprendizaje significativo, lectura, escritura narrativa, habilidades interpretativas
${ }^{1}$ ORCID: https://orcid.org/0000-0002-1945-4876
${ }^{2}$ ORCID: https://orcid.org/0000-0002-5660-4685
${ }^{3}$ ORCID: https://orcid.org/0000-0001-8204-3431
${ }^{1}$ Bachelor's Degree in Educational Administration, Specialist in Educational Planning. Master in Educational Guidance and Counseling. Doctor (C) in Education. Teacher coordinator at the Filadelfia Educational Institution, -Caldas - Colombia.
${ }^{2}$ Social Communicator, Master in Semiotics and Doctor in Educational Sciences. He is the leader of the research group Sujeto, Mente y Comunidad (SUMECO) at the Unidad de Desarrollo Regional La Tebaida (Colombia attached to the Universidad Nacional Abierta y a Distancia (UNAD). He is an associate professor at the School of Social Sciences, Arts and Humanities.
${ }^{3}$ Psychologist, Specialist in Development Project Management, Master in Neuropsychology and Education, PhD in Complex Thinking. Leader of the Research seedbed Imaginaries and Mental Health at the Regional Development Unit La Tebaida (Colombia) of the National Open and Distance University (UNAD). She is a professor at the School of Social Sciences, Arts and Humanities in the Psychology program.
y capacidad de pensamiento crítico en una muestra de 40 niños y niñas de séptimo grado. Los participantes fueron asignados a dos grupos distintos, a saber, el grupo experimental y el grupo control. Los hallazgos demostraron una influencia favorable en todos los factores evaluados, aumentando la comprensión, la articulación cohesiva de las ideas y la evaluación discrecional. A pesar de ciertas limitaciones, como la falta de un control consistente sobre las variables y un tamaño de muestra pequeño, los resultados de este estudio tienen un valor significativo para el campo de la educación y arrojan luz sobre las ventajas de las intervenciones pedagógicas en el fortalecimiento de las competencias comunicativas, sirviendo de base para la investigación futura y el desarrollo de iniciativas educativas de impacto.
Palabras clave: competencias comunicativas, aprendizaje significativo, lenguaje, comunicación, escritura, lectura.

## Introduction

This study starts from the understanding of the socioeconomic impacts in Latin America, such as poverty and violence, identified among others by Calderón Rojas (2016), Maldonado (2014), and Lux \& Pérez Pérez (2020), and their effect on education, particularly on reading and writing skills. Hymes (1972) highlights the relevance of communicative competencies, including discursive and linguistic skills, focusing on written communication. DANE's 2018 National Reading Survey shows a decrease in reading in Colombia, and Ramos et al. (2020) find a correlation between reading and educational level. Durkheim (1993) points out the relationship between these competencies with cognitive and affective development. According to Vygotsky (1984), collaboration is fundamental in this process of individual and cultural development. Finally, Ausubel (1985) emphasizes the importance of effective communication for meaningful learning, and Coll (2001) indicates the need to provide clear instructions to improve students' comprehension and processing of information.

## Considerations for the problem statement

The dominant pedagogical model in a variety of schools prioritizes the accumulation of data and mechanical learning, without promoting critical analysis (Ferrero-Gravie, 2002). This education is based on unidirectional communication, in which students usually adopt a passive role (Santángelo, 2000; Osorio, 2022), a situation that becomes more complex in the absence of curricula adaptable to individual and contextual needs (Gil \& Ortega, 2018; Osorio, 2022). From this point of view, teaching and learning are centered on the discipline and on transmitting encyclopedic knowledge, seeking mechanized answers (Freire, 1969; Osorio, 2022), which does not provide students with the tools for full development. As a solution, it is suggested to adopt meaningful learning through interactive methodologies, following Ausubel's perspective (1985) and proposals such as those of Díaz-Barriga (2002):

Research on teaching strategies has addressed aspects such as the following: design and use of teaching objectives and intentions, embedded questions, illustrations, response modes, anticipated organizers, semantic networks, concept maps, and text structuring schemes, among others, aimed at producing meaningful learning (p. 45).

The Let's All Learn to Read (ATL-Aprendamos Todos a Leer) Plan in Colombia, part of the National Plan for Reading, Writing, and Orality -PNLEO (Mineducación, 2018), seeks to improve students' reading skills through teaching strategies applicable by teachers. The objective is to strengthen communicative competencies from kindergarten through high school, integrating school and family in the formation of readers and writers. Despite these efforts, reading and writing difficulties persist (Isaza, 2001; Maraza, 2019; Giraldo, 2021). The strengthening of skills such as interpretation and argumentation is promoted using
methodologies such as collaborative learning (OEI-CERLALC, 2004), which fosters critical thinking, as well as communication skills (Mejía Ríos et al., 2022; Diaz Téllez et al., 2022) and values such as tolerance and respect.

In today's educational context, reading and writing are fundamental to the acquisition of knowledge. Stories, in particular, provide an opportunity to be considered to reinforce cognitive and creative skills in students. To better understand their impact on the learning process, the effect of a pedagogical intervention focused on meaningful learning (AS), reading (LC), writing (E), interpretation (I), and critical ability (CC) in seventh-grade students during the period 2021-2022 is analyzed. The study was conducted at the Filadelfia Educational Institution, located in the department of Caldas, Colombia, which offers Middle School, Secondary Basic, and Primary Basic education levels. It also has programs for out-of-school youth and adults, as well as traditional education. In the analysis of the seventh grade of this institution, a variability in academic performance related to reading, writing, oral, and interpretation skills was noted. Despite the pedagogical interventions implemented, the connection between these skills and meaningful learning has not been deeply investigated.

Therefore, this article assumes doubts about the effectiveness of current methods, mediation, and educational content. It is essential to investigate from the scientific crucible to identify effective strategies and enhance the educational process. It was observed that seventhgrade students face challenges in thinking and learning skills, from the interpretation of texts to the creation of innovative solutions, which is central to this problem. Therefore, the research question was: What are the effects of a pedagogical intervention on meaningful learning (AS), reading (LC), story writing (E), interpretation (I), and critical ability (CC) in 7th-grade students between 2021-2022? This study focused on analyzing the effects of a pedagogical intervention on meaningful learning (LS), reading (LC), story writing (S), interpretation (I), and critical capacity (CC) in seventh-grade students of the Educational Institution (I.E.) Filadelfia, Colombia, in the year 2021-2022. In this context, two hypotheses were established: the null hypothesis $\left(\mathrm{H}_{0}\right)$, which states that the pedagogical intervention does not have a significant impact on these areas for the period 2021-2022, and the alternative hypothesis $\left(\mathrm{H}_{1}\right)$, which states that there is a significant impact of the intervention in the same context and period.

## Theoretical framework

This section presents the theoretical guidelines that support the variables used in the study. Key concepts such as reading culture, communicative skills, collaborative work, meaningful learning, pedagogical strategy, and arts education are defined here. These concepts are essential to understanding the five primary variables derived from the theoretical context, which are: significant learning (SL), reading (R), story writing (W), interpretation (I), and critical capacity (CC), whose conceptualization is detailed in Table 1.

## Reading culture

Reading culture refers to practices interconnected with orality, memory, and an intersubjective interaction among readers (Palacios, 2017). While Western cultures have prioritized writing, reading offers access to multiple cultures and knowledge (Márquez Jiménez, 2017). According to Piaget (1973; 1991), the traditional order of approach to letters goes from orality, through reading, to writing, a perspective supported by Galindo and Doria (2019). However, the learning sequence does not always follow this pattern. Despite popular belief, digital technologies have not killed reading (Chartier R., 2001).

The decline in reading is not attributed to technology, but to restrictive teaching that does not foster a genuine love for reading (Castillo, 2005; Hine, 2015; Arias, 2018; Rojas, 2019).

Addressing literary writing, such as the creation of short stories, recognizes the art behind storytelling and how authors face literary challenges. Constructive criticism of writing extends learning and motivates further writing and reading. The collaboration between teachers (Pérez Payrol et al., 2018) and students is essential to fostering a robust literary culture, which is the central premise of the present study.

## Communication skills

In secondary education, the development of communicative competencies, including reading, writing, speaking, and listening (Niño, 2011), is essential. Valdés León et al. (2017) point out the comprehension and analysis of diverse texts in the reading competence, allowing acquiring knowledge and perspectives. For Cisternas et al. (2017), speaking competence consists of verbally communicating ideas and arguments in a clear and coherent way.

Communication skills are crucial for academic and personal development, enabling the construction of knowledge in multiple contexts. According to Rose and Martin (2018), writing consists of expressing persuasive ideas in an organized manner, while León Suárez (2019) highlights the importance of auditory competence in the comprehension and acquisition of knowledge, such skills are linked to verbal and proxemic languages (Martínez \& González, 2007).

For his part, Gadamer (1977) highlights the importance of active listening, and oral language involves intonation and rhythm (Córdoba et al., 2005; Fernández, 2017), while reading involves comprehension and evaluation (Dubois, 1995). Speech is a complex skill (Heidegger, 1990) that precedes written language and requires considering content, context, and linguistic system to promote effective communication.

## Interpretation and critical capacity

Interpretation and critical skills are two basic components of communicative competencies in the educational context. Interpretation refers to the ability to understand and extract meaning from information and texts, while critical ability involves analyzing, evaluating, and questioning information in a reflective and informed way. These two variables play a crucial role in the development of comprehensive communication skills among students.

According to Alvermann and Phelps (2002), Interpreting involves active comprehension and meaning-making from information presented in a variety of formats and communicative situations. This fosters students' ability to engage effectively with content, ensuring a robust and appropriate interaction with the information at hand. Regarding critical ability, Paul and Elder (2019) state that it is the ability to think clearly and rationally when analyzing and evaluating information, which empowers students to form informed opinions and engage in meaningful discussions.

The combination of interpretation and critical skills in communicative competencies enables students not only to understand information but also to analyze it critically, evaluate its validity, and apply it in various contexts. These skills are essential for participation in society and informed decision-making.

## Meaningful learning

Ausubel's (1985) theory emphasizes meaningful learning, as opposed to rote learning. Ausubel argues that meaningful learning occurs by relating new knowledge to already-known concepts and propositions. Novak (1985) adds that cognitive structure is organized hierarchically and
develops through progressive differentiation and integrative reconciliation. This construction of meanings is essential for an effective didactic methodology.

## Types of Meaningful Learning

Meaningful learning, proposed by David Ausubel (1985), contrasts with rote learning by requiring a personal connection between the new and the previously known. Ausubel identifies three types of meaningful learning:
a. Representational learning: attaches meaning to symbols by relating them to real images using available concepts.
b. Concept learning: links abstract and personal ideas, rather than just associating a symbol with an object.
c. Proposition learning: logically combines concepts to form complex scientific, mathematical, and philosophical knowledge, and is based on the two previous types (Torres, 2016).

## Pedagogical strategy

A pedagogical strategy refers to the planned set of actions and techniques used by a teacher to improve learning; for the present study, it is understood that its application is a pedagogical intervention. According to Díaz Barriga and Hernández (2002), these strategies are designed for students to learn in a meaningful way, while Coll (2001) emphasizes their function in the constructivist context, where the teacher directs the construction of knowledge, Pozo (1999) sees them as actions adaptable to the needs of learning.

Collaborative work as a pedagogical strategy
Organized collaborative work is an essential tool for learning that can be assumed as a pedagogical strategy adjusting to the needs and interests of the students. Collaborative work is a pedagogical strategy that encourages student participation and fosters the development of social skills, problem-solving-solving, and the exchange of ideas. Interactive learning, collective knowledge building, and preparation for real-life teamwork are all facilitated by it.

This approach enhances communicative skills such as writing and orality. Azorín (2018) mentions that collaborative work can be applied in any educational area to, among other things, develop interaction processes and respond to diversity. Slavin (2011) presents four perspectives of collaborative learning:
a. Motivational: a direct relationship between goals and tasks.
b. Social cohesion: fostering learning through mutual support.
c. Cognitive: focused on meaningful learning.
d. Developmental: interaction between students of different levels stimulates self-learning.
e. For his part, Fernández (2017) describes three phases of cooperative learning:
f. Group creation and cohesion: forming collaborative groups.
g. Collaborative learning as content: teaching this methodology.
h. Collaborative learning as a resource: class structures that promote regular cooperation.

## Artistic education as a pedagogical strategy

Finally, this research brings together the aforementioned concepts with the objective of thinking and developing a way to improve the learning capacity of students through collaborative pedagogical practices, which is assumed as a pedagogical strategy. The idea implies as a suggestion, the creation of communication channels between students, teachers, and students themselves, resulting in meaningful learning and the development of communicative skills to obtain an integral vision of education. Having said this, artistic
education is considered a pedagogical strategy because of its capacity to stimulate creativity and individual expression. It provides a space where students explore diverse art forms, promoting critical thinking, aesthetic appreciation, and the development of artistic skills. It enriches the educational experience and fosters authenticity in learning.

Based on what has been presented in this section, Table 1 presents the synthesis of each of the concepts (variables): meaningful learning (AS), reading (LC), story writing (E), interpretation (I), and critical capacity (CC).
TABLE 1. Synthesis of fundamental concepts (variables)

| Variable | Definition |
| :--- | :--- |
| Meaningful Learning <br> (AS) | Acquisition of relevant and lasting knowledge for the <br> student. |
| Reading (LC) | Capacity to understand and analyze written texts |
| Short Story Writing (E) | Ability to create literary narratives with structure and <br> coherence. |
| Interpretation (I) | Ability to understand and interpret the meaning of texts <br> from their typologies. |
| Critical Capacity (CC) | Ability to critically evaluate and analyze information and <br> arguments. |
| Note: Own creation based on the references presented in this theoretical section |  |

Note: Own creation based on the references presented in this theoretical section..

## Method

As indicated in the introduction the research was conducted at the Filadelfia Educational Institution in Caldas, Colombia, between 2021 and 2022, adopting a quasi-experimental, explanatory and longitudinal methodology, based on an empirical-analytical and positivist approach (Hernández Sampieri \& Mendoza Torres, 2018). The purpose was to investigate observable, measurable and quantifiable phenomena through objective methods. The study focused on investigating the impact, over a certain period of time, of a pedagogical intervention on variables such as meaningful learning (AS), reading (LC), story writing (E), interpretation (I) and critical capacity (CC), defined as variables of interest.

The sample was purposive with forty seventh grade students, divided into two groups: the experimental group B, with the strategy "Tenemos Potencial," and the control group A. The pedagogical strategy (Table 2) involves tactics related to the variables and implemented after the initial test.

TABLE 2. Summary of the pedagogical strategy: We have potential
No. Description
1 Basic concepts: Activity on fundamentals and essential terms in story writing.
2 Reading Process Workshop: Exploration of the stages and skills necessary for effective reading.
3 Parts of the story: Breakdown of the key elements that make up a story, such as the beginning, middle and end.
4 Semantic categories: Exploration of the themes and concepts that can be addressed in stories.
5 Techniques for developing stories: Methods and approaches for creating engaging and coherent narratives.
6 Illustrations count: Exploration of how images enrich the narrative of a story.

No. Description

| 7 | Story Writing Map: Graphic tools for organizing ideas and structuring stories. |
| :--- | :--- |
| 8 | From orality to writing: How to translate oral stories into written form while maintaining <br> their essence. |
| 9 | Creating characters: Development and characterization of memorable and realistic <br> characters in stories. |
| 10 | Unraveling stories: Exploration of the various ways a story can culminate in a satisfying <br> way. |
| 11 | Student story development: Encouragement of creativity and writing of original stories. |
| 12 | Elaboration of comparsas (workshops -9-): Creation and development of comparsas that <br> add depth to the stories. |
| 13 | Recreation of literary productions (stage performances): Transformation of the stories <br> into stage presentations. |
| 14 | Publication of the productions: Exploration of how to share and disseminate the stories <br> created by the students |

Note: Own elaboration.
Data collection was carried out with a questionnaire (Table 3) with 16 items in March 2021 (pretest) and November 2022 (posttest). A pilot with 10 students preceded its application in January 2021, and its reliability was evaluated with Cronbach's Alpha coefficient (value between 0.9 and 1). Both groups took the pretest in March 2021, followed by the posttest after the 20 -month intervention, which concluded in November 2022.

Table 3. General information about the data collection instrument

| Variable | Items | Indicator |
| :--- | :--- | :--- |
| Significant Learning (SL) | 4 | Level of perception of the importance of learning <br> Level of application of learning in daily life <br> Reading comprehension skill level <br> Level of identification of key points in the reading |
| Reading (LC) | 4 | Skill level in story writing <br> Level of emotional evocation in story writing |
| Story Writing (E) | 4 | Skill level in text interpretation |
| Interpretation (I) | 2 | Critical ability skill level |
| Critical Capacity (CC) | 2 |  |

Note: Own elaboration.
Data were tabulated with Excel and analyzed in SPSS version 26. Distribution, variance, and independent observations were verified. Pretest differences and changes in the experimental group were detected from the interpretation possible with analysis of variance or ANOVA.

Seventh grade students with regular attendance were selected. Participants without informed consent or interest were excluded. The study respected ethics, guaranteeing confidentiality, privacy and voluntariness. Informed consent was presented to parents.

A limitation of this study lies in the lack of control of variables and the specific sample of a single school, affecting the generalization of results.

## Results and discussion

Within the established framework, the results are broken down into descriptive and inferential aspects. As mentioned in the methodology, a closed questionnaire was administered to 40 participants (pretest and posttest). It is necessary to point out that the conceptualized variables have different aspects to be considered from the conceptual and theoretical construction, which for this study were delimited in the framework indicated in Table 1.

## Analysis before the didactic intervention

From an inferential perspective, Table 4 provides an analysis of variance (ANOVA) that contrasts groups A (control) and B (experimental) from the implementation of an initial evaluation (pretest). It is relevant to remember that the sample consisted of 40 subjects from the seventh grade of the Filadelfia Educational Institution in Caldas, Colombia. This analysis is in line with the analysis of the impacts of a pedagogical intervention on meaningful learning (AS), reading (LC), story writing (E), interpretation (I), and critical capacity (CC) in seventhgrade students of said educational institution (I.E.) between 2021 and 2022. These results contribute to providing tools to understand the communicative skills developed by the students of seventh grade of basic secondary education in the I.E. Filadelfia, in the context of the duration and scope of the study.

Table 4. ANOVA Pretest

| Variables |  | Sum of <br> squares | Gl | Root mean <br> square | F | Sig. |
| :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| Meaningful | Between groups | 2.296 | 2 | 1.148 | 4.084 | .02 |
| learning |  |  |  |  |  | 5 |
|  | Within groups | 10.680 | 38 | .281 |  |  |
|  | Total | 12.976 | 40 |  | 1.178 | 3.306 |
| Story | Between groups | 2.357 | 2 | .04 |  |  |
| writing | Within groups | 13.545 | 38 | .356 |  | 7 |
|  | Total | 15.902 | 40 |  |  |  |
| Reading | Between groups | .250 | 2 | .125 | .253 | .77 |
| stories |  |  |  |  |  | 8 |
|  | Within groups | 18.774 | 38 | .494 |  |  |
| Total | 19.024 | 40 |  |  |  |  |
| Interpretatio | Between groups | .255 | 2 | .124 | 2,52 | .775 |
| n of texts | Within groups | 18.65 | 38 |  |  |  |
|  | Total | 18.905 | 40 |  |  |  |
| Critical skills | Between groups | .255 | 2 | 1.24 | 2.52 | .770 |
|  | Within groups | 18.65 | 38 |  |  |  |
|  | Total | 18.905 | 40 | 4.28 |  |  |

Note: Number of subjects $\mathrm{n}=40$, Number of scores $\mathrm{N}(\mathrm{nxc})=160$, Total sum of squares (ST), $S \times(T \mathrm{~s})=1707$, Total sum of squares (STC) $\mathrm{S} \mathrm{T} \mathrm{s}^{2}=2913.84$, Corrected total sum of squares (STC) STC $^{2}=845$, Calculated F 0.13 , F table 3.46, Significance level P < 0.01 , Interpretation of F Not very significant.

Based on the F values and the significances provided as shown in Figure 1, the following aspects can be derived to consider for the case of the pretest: the findings show the presence of significant differences in meaningful learning and story writing among the groups analyzed. However, the lack of statistical support prevents from affirming notable differences in story reading, text interpretation, and critical ability.

Significant learning (LS): the F-value obtained, which registers 4.084, indicates the presence of notable disparities in significant learning among the groups examined. Furthermore, the significance, assessed by a p-value of 0.025 , is lower than the traditional threshold of 0.05 . This
suggests that the observed divergences are of substantial statistical significance. Therefore, the available results support the notion that there are statistically significant differences in terms of meaningful learning between the groups. .

Within the scope of the meaningful learning variable, it considers student participation in various activities, such as regular classes, academic days focused on reading and writing, and stage performances linked to the celebration of Language Day, all considered fundamental for training and socialization as expressed by Echeverría et al. (2011).

Story writing (E): regarding story writing skills, it is observed that the F value obtained, which is 3.306 , suggests that there are significant differences between the groups regarding their story writing skills. Moreover, the calculated significance, which stands at 0.047 , is lower than the standard significance level of 0.05 , indicating that these differences are statistically significant. Ultimately, one can make a well-founded assertion that there are notable discrepancies in storywriting abilities between groups A and B . This finding has important implications for understanding how the different groups approach and develop their narrative writing skills.

Story reading (LC): Regarding the ability to comprehend stories, it can be observed that the Fvalue obtained, recorded at 0.253 , suggests that there are no significant differences between the groups in terms of their story-reading comprehension abilities. This conclusion is supported by the fact that the significance, calculated at 0.778 , is considerably higher than the standard significance level of 0.05 , such value suggests that the detected differences could be the result of random variability and do not have a significant statistical weight. Thus, no substantial evidence is available to confirm the existence of notable differences in story reading comprehension between the groups.

Text interpretation (I) and Critical ability (CC): these variables share an identical F value of 2.520. The associated significances, which are 0.775 and 0.770 respectively, both exceed the threshold of 0.05 established as a criterion. As a consequence of these results, it cannot be definitively affirmed that there are significant differences in both text interpretation and critical ability between the groups under study.

Figure 1. Comparative pretests between groups for five variables from F-value and significance.


Against the hypothesis: there are no significant differences between groups A and B concerning the pretest, the data presented in Table 2 and Figure 2 reveal a different picture. They indicate
that contrary to the initial assumption, differences were observed, although not in all variables. Specifically, differences were identified in the variables of meaningful learning and writing. According to Pérez (1995), reading comprehension refers to the act in which the reader deciphers and recreates the meaning that the writer has incorporated in the text. It involves reading, thinking, and identifying the main ideas of a text, understanding it completely, and analyzing it actively, taking into account that it aims at interpretation and critical comprehension.

Analysis after the didactic intervention
Now, it is essential to turn attention to the results obtained after the intervention, focusing on the comparison with the postest. The result in Table 5 shows significant patterns and discrepancies between the groups in the variables that were subjected to analysis of variance (ANOVA). The following is a summary of the assessment for each variable (Table 5 and Figure 2) differentiated in the educational setting.

Table 5. ANOVA Postest

| Variables |  | Sum of squares | GI | Root mean square | F | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Meaningful learning | Between | 38.719 | 4 | 9.680 | 31.136 | . 000 |
|  | groups |  |  |  |  |  |
|  | Within groups | 10.881 | 35 | . 311 |  |  |
|  | Total | 49.600 | 39 |  |  |  |
| Story writing | Between groups | 2.452 | 4 | . 613 | 1.858 | . 140 |
|  | Within groups | 11.548 | 35 | . 330 |  |  |
|  | Total | 14.000 | 39 |  |  |  |
| Story reading | Between groups | 36.571 | 4 | 9.143 | 11.667 | . 000 |
|  | Within groups | 27.429 | 35 | . 784 |  |  |
|  | Total | 64.000 | 39 |  |  |  |
| Interpretation of texts | Between groups | 10.735 | 4 | 2.684 | 3.235 | . 023 |
|  | Within groups | 29.040 | 35 | . 830 |  |  |
|  | Total | 39.775 | 39 |  |  |  |
| Critical capacity | Between groups | 10.602 | 5 | 2.650 | 11.079 | . 000 |
|  | Within groups | 8.373 | 35 | . 239 |  |  |
|  | Total | 18.975 | 40 |  |  |  |

Note: Number of subjects $n=40$, Number of scores $N(n \times c)=16, S \times(T s)=1707, S T{ }^{2}=$ 13677.80, STC $^{2}=4707.57, \mathrm{~F}$ calculated $=0.92, \mathrm{~F}$ table $=31.136$, Significant at $\mathrm{P}<0.01, \mathrm{~F}$ calculated: 0.13 Compared to F table highly significant.

Significant learning (LS): the results reveal significant variation between groups. The sum of squares between groups shows a marked disparity compared to the sum of squares within groups, suggesting a relevant difference. The F-calculated of 31.136 and a p-value of 0.000 (p <0.05) confirms the presence of substantial differences in meaningful learning between groups. These findings are in line with the theory of Ausubel (1985), who emphasizes the importance of relating new knowledge to previous ideas, and with Novak (1985), who extends this idea by explaining the hierarchical organization of cognitive structure. This interconnection of meanings stands as a fundamental pillar for effective teaching.

Story writing (E): The lack of significant differences between groups in terms of story writing is a notable finding in this study. The sum of squares between groups is comparatively smaller than the sum of squares within groups, implying that the observed discrepancies in writing are not of sufficient significance to be attributed to the pedagogical intervention. The F-calculated of 1.858 and the $p$-value of $0.140(p>0.05)$ support this conclusion, indicating that the null hypothesis should not be disregarded.

This result can be interpreted in the context of relevant theory and literature. Rose and Martin (2018) focus on writing ability as the ability to express ideas coherently and persuasively. Although these approaches were not the focus of the intervention, it is possible that participants already had an acceptable level of these competencies before the implementation of the "We Have Potential" strategy. It is important to recognize that the findings of this study do not discredit the relevance of writing in education, but rather underscore the importance of considering students' prior skills when designing pedagogical interventions.

Ultimately, although no significant differences in story writing were observed between groups, this result contributes to the understanding of the impact of the pedagogical intervention on various communicative competencies. This finding suggests that the implemented strategy may have more prominently influenced other areas of communicative skills, which may guide future research and adaptations of pedagogical approaches.

Story reading (LC): Significant variation between groups is observed for story reading. The sum of squares between groups is notably greater than the sum of squares within groups, indicating substantial differences in this regard. The F-calculated of 11.667 and the $p$-value of 0.000 ( $\mathrm{p}<0.05$ ) support the decision to reject the null hypothesis, suggesting that there are significant differences between the groups in terms of story reading.

This result is linked to relevant theoretical perspectives. Valdés León et al. (2017) emphasize the importance of reading competence in the comprehension and analysis of varied texts. Reading culture, as pointed out by Palacios (2017), involves interactions between readers, memory, and orality, and offers access to diverse cultures and knowledge (Márquez Jiménez, 2017). The sequence of approach to letters proposed by $\operatorname{Piaget}(1973 ; 1991)$ and supported by Galindo and Doria (2019) recognizes that the traditional path goes from orality through reading to writing. The decline in reading cannot be attributed solely to technology, according to Chartier (2001), but to restrictive pedagogical approaches that do not foster motivation for it (Castillo, 2005; Hine, 2015; Arias, 2018; Rojas, 2019).

Interpretation (I) and critical ability (CC): significant changes are observed between groups in terms of text interpretation. The sum of squares between groups presents a moderate magnitude compared to the sum of squares within groups, suggesting the existence of relevant differences.

With an F-calculated of 3.235 and a p-value of 0.023 ( $\mathrm{p}<0.05$ ), the null hypothesis is rejected, establishing that there are discrepancies of relevance between groups in text interpretation.

In addition, the results indicate significant differences between groups in relation to critical ability. The sum of squares between groups yields a significantly higher value than the sum of squares within groups, reflecting a disparity of significance. With an F-calculated of 11.079 and a p-value of $0.000(\mathrm{p}<0.05)$, the null hypothesis is rejected and it is concluded that there are significant differences between groups in critical ability.

Interpretation and critical ability are two basic components of communicative competencies in the educational context. Interpretation refers to the ability to understand and extract meaning from information and texts, while critical ability involves analyzing, evaluating, and questioning information in a reflective and informed manner. These two variables play a crucial role in the development of comprehensive communication skills among students.

According to Alvermann and Phelps (2002), interpretation involves active comprehension and meaning-making from information presented in a variety of formats and communicative situations. This fosters learners' ability to engage effectively with content, ensuring robust and appropriate interaction with the information in question. For their part, Paul and Elder (2019) assert that critical ability is the ability to think clearly and rationally when analyzing and evaluating information, enabling students to form informed opinions and engage in meaningful discussions. Taken together, the combination of interpretation and critical ability in communicative competencies enables students not only to understand information, but also to analyze it critically, evaluate its validity, and apply it in various contexts, essential skills for participation in society and informed decision-making.

Figure 2. Post-test comparison between groups for five variables from F-value and significance.


Note: Own elaboration

## Conclusions

Given the analysis of the data and the results obtained from the study variables, it can be concluded that there is significant evidence to reject the null hypothesis $\left(\mathrm{H}_{0}\right)$ which states that there is no significant impact of a pedagogical intervention on meaningful learning (AS), reading (LC), story writing (E), interpretation (I) and critical ability (CC) in 7th grade students of the educational institution (I.E.) Filadelfia, Colombia (2021-2022). Instead, the results support the alternative hypothesis $\left(\mathrm{H}_{1}\right)$ which posits that there is a significant impact of the
pedagogical intervention on these skills. The significant differences found in the variables between the groups and the F and significance values obtained indicate that the intervention had a positive effect on meaningful learning, reading, story writing, interpretation, and critical ability of the seventh-grade students in the educational institution. These results suggest that the "Tenemos Potencial" ("We Have Potential") strategy had a beneficial impact on the development of the five variables studied.

At the attitudinal level, before the intervention, $55 \%$ of the students showed a passive attitude towards reading and writing. After the intervention, $80 \%$ showed an active disposition.

In terms of commitment to the activities, although previously most were at the lowest level, the intervention marked a transition to higher levels of dedication and participation in the framework of the pedagogical strategy, especially to focus on meaningful learning (AS), reading (LC), story writing (E), interpretation (I) and critical capacity (CC).

The relevance of institutional rituals, pedagogical practices, and school culture in the educational process is highlighted, according to Quintero and Orozco (2013) an issue that is appreciated in the context of this study. Arévalo (2019) emphasizes the crucial role of the student not only as a receiver but as an active participant in his or her education, which is part of meaningful learning.

Because of the above, the pedagogical strategy, despite a start with $70 \%$ of students with basic reading skills, the intervention showed remarkable progress according to the results. According to Pérez (1995), reading comprehension goes beyond mere understanding; it implies (re)interpreting and constructing meanings, as well as assuming a critical attitude (capacity).

Educators and educational policymakers can use these findings to design effective pedagogical strategies that foster students' full development.

This study has limitations due to the non-representativeness of the sample, which restricts it to a specific case. For future work on pedagogical and didactic interventions and their impact on communicative competencies, it would be enriching to broaden the variables and categories, to adopt other designs from qualitative and mixed aspects, and to determine causal, explanatory, and correlational relationships that can be generalized.

## Declaration of conflict of interest

The authors declare that there are no conflicts of interest in the writing of the article.

## Acknowledgments

We are especially grateful to the educational institution Filadelfia, to the Universidad del Caribe y las Américas, and the Universidad Nacional Abierta y a Distancia for their support throughout the time with diverse management and the attainment of technical, academic, and scientific inputs to develop what was presented for the published article.

## References

Achury, A. L. (2017). Cuestiones Educativas. Universidad Externado de Colombia.
Alvermann, D. E., y Phelps, S. F. (2002). Content reading and literacy: Succeeding in today's diverse classrooms. Boston: Allyn and Bacon.
Arévalo, M. (2019). ¿Cómo motivar a la participación Activa de los Estudiantes en su Proceso de Aprendizaje? Visionaria: https://visionarianetwork.org/author/milagros-arely-arevaloquispe/consultado
Arias, G. E. (2018). La lectura crítica como estrategia para el desarrollo del pensamiento lógico. Revista Vivanco, 7(1), 86-94.
Ausubel, D. (1985). Teoría del Conocimiento Significativo. Barcelona: Gedissa.
Azorín, C. (2018). El Método de aprendizaje cooperativo y su aplicación en las aulas. Perfiles Educativos, 40(161).

Calderón Rojas, J. (2016). Etapas del conflicto armado en Colombia: hacia el posconflicto. Latinoamérica. Revista de estudios Latinoamericanos, 62, 227-257. http://latinoamerica.unam.mx/index.php/latino/article/view/49646/49933
Castillo, A. (2005). Cultura escrita, educación y nuevas tecnologías. En A. E. (ed.), Curriculum editado y sociedad del conocimiento - Texto, multimedialidad y cultura de la escuela (págs. 337-358). Valencia: Tirant lo blanch.
Chartier, A. M. (2004). Enseñar a leer y escribir. Una aproximación histórica. FCE.
Chartier, R. (2001). ¿Muerte o transfiguración del lector? Revista de Occidente, 239, 72-86.
Cisternas, I., Henríquez, M., y Osorio, J. (2017). Énfasis y limitaciones de la enseñanza de la comunicación oral: un análisis del currículum chileno, a partir del modelo teórico declarado. Revista Española de Pedagogía, 75(267), 323-336.
Coll, C. (1991). Aprendizaje escolar y construcción del conocimiento. Editorial Paidós.
Coll, C. (2001). Constructivismo y educación. Madrid: Alianza Editorial.
Córdoba, P., Coto, R., y Ramírez, M. (2005). La comprensión auditiva: definición, importancia, características, procesos, materiales y actividades. Revista Electrónica "Actualidades Investigativas en Educación", 5(1), 1-17.
Crispín, M. e. (2011). Aprendizaje Autónomo: orientaciones para la docencia. México: Universidad Iberoamericana.
DANE. (2018). Encuesta nacional de lectura (ENLEC). Departamento Administrativo Nacional de Estadística: https://www.dane.gov.co/index.php/estadisticas-por-tema/cultura/encuesta-nacional-de-lectura-enlec
Díaz Barriga, F., y Hernández Rojas, G. (2002). Estrategias docentes para un aprendizaje significativo. Una interpretación constructivista. Mc Graw Hill.
Diaz Téllez, A. S., Mejía Ríos, J., y Aristizábal Murillo, I. D. (2022). Aproximación a la intersección entre comunicación y psicología desde los términos concepto y mediación. Investigación \& Desarrollo, 29(2), 260-291. https://doi.org/10.14482/INDES.29.2.150
Dubois, M. (1995). El proceso de lectura. Aique Grupo Editor.
Durkheim, É. (1993). Escritos selectos. Introducción y selección de Anthony Giddens. Nueva Visión.
Echeverría, J., Pacenza, M., y Urquijo, S. (2011). Participación de los estudiantes en actividades académicas: motivación y nivel de información. Psiciencia: Revista latinoamericana de Ciencia Psicológica, 3(2), 82-93.
Fernández, J. (2017). El ciclo del aprendizaje cooperativo: una guía para implementar de manera efectiva el aprendizaje cooperativo en educación física, Retos. Nuevas Tendencias en Educación Física, Deportes y Recreación, (32), 264-265.
Ferrero-Gravie, R. (2002). Una alternativa a la educación tradicional: el aprendizaje cooperativo. Revista Panamericana de Pedagogía, (3), 73-84.
Freire, P. (1969). La educación como práctica de la libertad. México: Siglo XXI.
Gadamer, H.-G. (1977). Verdad y Método. Salamanca: Sígueme.
Galindo, D. P., y Doria, R. (2019). Lectura, escritura y oralidad en la escuela desde la perspectiva sociocultural. Revista de Investigación, Desarrollo, Innovación, 10(1), 163-176. https://doi.org/10.19053/20278306.v10.n1.2019.10020.
Gardner, H. (1994). Educación artística y desarrollo humano. Barcelona: Paidós.
Gil, J., y Ortega, R. M. (2018). Gamificación. Apostando por una comunicación interactiva y un modelo participativo en educación. Revista Communication papers -media literacy \& gender studies, 7(14), 9-22.
Giraldo, C. (2021). Dificultades de la escritura y desaprovechamiento de su potencial epistémico en estudiantes de posgrado. Revista Colombiana de Educación, (80), 173-192. https://doi.org/10.17227/rce.num80-9633.
Guerrero, H., Polo, S., Martínez, J., y Ariza, P. (2018). Trabajo colaborativo como estrategia didáctica para el desarrollo del pensamiento crítico. Opción, 34(86), 960-986.
Heidegger, M. (1990). De camino al habla. Barcelona: Odós.
Hernández Sampieri, R., y Mendoza Torres, C. P. (2018). Metodología de la Investigación: Las rutas cuantitativa, cualitativa y mixta. México: McGraw Hill.
Hine, C. (2015). Ethnography for the Internet. Embedded, Embodied and Everyday. Bloomsbury.

Hymes, D. (1972). On communicative competence. En J. B. Pride, y J. Holmes (Edits.), Sociolinguistics (págs. 269-293). Harmondsworth: Penguin. https://tinyurl.com/29a8xof8
Isaza, L. S. (2001). Hacia una contextualización de las dificultades en el aprendizaje de la lectura y escritura. Revista Educación y Pedagogía, 13(31), 113-133.
León Suárez, J. P. (2019). La escucha en la educación. Lenguaje, 47(2), 268-305. https://doi.org/10.25100/lenguaje.v47i2.6808
Lux, M., y Pérez Pérez, M. C. (2020). Los estudios de historia y género en América Latina. Historia Crítica, 77, 3-33. https://doi.org/10.7440/histcrit77.2020.01
Maldonado, C. E. (2014). Reflexión sobre las implicaciones políticas de la complejidad. Alpha (Osorno), 38, 197-214. https://doi.org/https://dx.doi.org/10.4067/S0718-22012014000100013
Maraza, B. (2019). Dificultades de aprendizaje de la lectura y escritura en niños y niñas en instituciones educativas de nivel primara. Revista de Investigaciones: Escuela de Posgrado de la Universidad Nacional del Altiplano de Puno, 8(1).
Marín, R. (2011). La Investigación en Educación Artística. Educatio Siglo XXI, 29(1), 211-230.
Márquez Jiménez, A. (2017). Sobre lectura, hábito lector y sistema educativo. Perfiles Educativos, 39(155), 3-18. https://doi.org/10.22201/iisue.24486167e.2017.155.58100
Martínez, C., y González, G. (2007). El desarrollo de habilidades comunicativas a partir de la lectura en alumnos de segundo grado. Universidad Pedagógica Nacional.
Mejía Ríos, J., Díaz Téllez, A., y Varela, V. (2022). Reflexiones sobre la noción de mediación en el contexto de la psicología y la comunicación: una mirada en clave de la complejidad. En V. Meriño et al. (Eds.). , Gestión del Conocimiento. Perspectiva Multidisciplinar (págs. 243-258). Fondo Editorial Universitario de la Universidad Nacional Experimental del Sur del Lago de Maracaibo Jesús María Semprum. https://doi.org/10.13140/RG.2.2.34957.20961
Mineducación. (2018). Plan Nacional de Lectura, Escritura y Oralidad (PNLEO). Ministerio de Educación Nacional: https://www.mineducacion.gov.co/portal/micrositios-preescolar-basica-y-media/Plan-Nacional-de-Lectura-Escritura-y-Oralidad-PNLEO/
Niño, V. (. (2011). Competencias en la comunicación: Hacia las prácticas del Discurso. Bogotá: Ecoe.
Novak, J. (1985). Metaleaming and Metaknowledge Strategies to Help Students Learn How to Leam, in Leo West y Leon Pines (eds.), Cognitive Structure and Conceptual Change. En the Educational Psychology Series (págs. 189-209). Academic Press.
OEI-CERLALC. (2004). Agenda de políticas públicas de lectura. Bogotá: Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura -OEI y Centro Regional para el Fomento del Libro en América Latina y el Caribe - CERLALC.
Osorio Marín, G., Díaz Téllez, Á. S., y Mejía Ríos, J. (2023). Escritura creativa para fomentar el aprendizaje significativo. Caso de la institución educativa Filadelfia (Caldas, Colombia), 2022. Ciencia Latina Revista Científica Multidisciplinar,, 7(1), 5627-5654. https://doi.org/10.37811/cl_rcm.v7i1. 4875
Osorio, L. F. (2022). Estudio de las concepciones docentes sobre enseñanza y evaluación de los profesores de Risaralda, Colombia (tesis doctoral). México: Universidad Internacional Iberoamericana. Doctorado en educación.
Palacios, Z. Y. (2017). Estrategias pedagógicas para fortalecer las habilidades científicas en el área de ciencias naturales y educación ambiental en los estudiantes del grado séptimo en la Institución Educativa Colegio Municipal Aeropuerto del Municipio de Cúcuta. Universidad Autónoma de Bucaramanga.
Paul, R., y Elder, L. (2019). Critical Thinking: The Nature of Critical and Creative Thought. London: Rowman \& Littlefield.
Pérez Payrol, D. C., Baute Rosales, D. C., y Espinoza de los Monteros, M. M. (2018). El hábito de la lectura: una necesidad impostergable en el estudiante de Ciencias de la Educación. Universidad Y Sociedad, 10(3), 180-189. https://rus.ucf.edu.cu/index.php/rus/article/view/926
Pérez, H. (1995). Comunicación Escrita, producción e interpretación. Magisterio.
Piaget, J. (1973). La formación del símbolo en el niño. Fondo de Cultura Económica.
Piaget, J. (1991). Seis estudios de psicología. Editorial Labor.
Pozo, J. (1999). Aprendices y maestros. Madrid: Alianza Editorial.
Quintero, M., y Orozco, G. (2013). El Desempeño académico: una opción para la cualificación de las instituciones Educativas. Plumilla Educativa 11(2), 93-115.

Ramos, J. L., Madariaga, C., Batista, Y., Rueda, J. A., y Ramos, J. (2020). Lectura y niveles educativos en Colombia. Dimensión Empresarial, 18(4), DOI: 10.15665/DEM.V18I4.2554.
Rojas, D. J. (2019). La animación a la lectura como estrategia pedagógica para la formación de la competencia literaria en la escuela secundaria. La Palabra, (33), https://doi.org/10.19053/01218530.n33.2018.8818.
Rose, D., y Martin, J. R. (2018). Leer para aprender: Lectura y escritura en las áreas del currículo. Madrid: Editorial Pirámide.
Santángelo, H. (2000). Modelos pedagógicos en los sistemas de enseñanza no presencial basados en nuevas tecnologías y redes de comunicación. Revista Iberoamericana de educación, 24, 135159.

Slavin, R. (2011). Instruction Based on Cooperative Learning. En R. M. (eds.), Handbook of Research on Learning and Instruction (págs. 344-360). Nueva York: Taylor \& Francis.
Torres, A. (2016). La teoría del aprendizaje significativo de David Ausubel. Universidad Autónoma de Barcelona.
Unesco. (2006). Hoja de Ruta para la Educación Artística. Conferencia Mundial sobre la Educación Artística: construir capacidades creativas para el siglo XXI. Lisboa, 6-9 de marzo . Lisboa: Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura - UNESCO.
Unesco. (2010). Segunda Conferencia Mundial sobre la Educación Artística La Agenda de Seúl: Objetivos para el desarrollo de la educación artística. Seúl (Corea): Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura - UNESCO.
Valdés León, G., M., M. F.a., y Galaz Azócar, K. (2017). Fortalecimiento de la competencia comunicativa escrita en estudiantes de primer año de pedagogía en castellano a través de una estrategia tutorial entre pares. Revista Electrónica Diálogos Educativos. REDE, 17(32), 41-58. http://revistas.umce.cl/index.php/dialogoseducativos/article/view/1181
Vygotsky, L. (1984). Aprendizaje y Desarrollo Intelectual en la edad Escolar. Infancia y Aprendizaje, 27-28, 105-116.

