

Metacognitive-Discursive Model For Strengthening Critical Reading Of Rural Middle School Students

Ibeth del Rosario Morales Escobar¹, Hernán Javier Guzmán Murillo²,
Arnaldo Peinado Méndez³

¹Magíster en Educación por la Universidad de Córdoba (2012).
Docente de tiempo completo de la Universidad de Córdoba- Colombia
ibethmoralese@correo.unicordoba.edu.co

²Doctor en Ciencias de la Educación
Docente tiempo completo de la Universidad de Córdoba, Colombia
hernanguzmanm@correo.unicordoba.edu.co

³Magíster en Lingüística y Español de la Universidad del Valle, Colombia
Docente tiempo completo de la Universidad de Córdoba- Colombia
adpeinado@correo.unicordoba.edu.co

Summary:

The gaps in the inequity of the quality of rural Colombian education prevent students from achieving their expectations for entry into higher education, which demands reflections and research to improve the quality of education in this educational sector. This article presents the results of an investigation in which the influence of the metacognitive-discursive model on the critical reading skills of 480 rural secondary education students in the department of Córdoba (Colombia) was determined. The quantitative approach with preexperimental design was used with the application of pretest and posttest tests in a related sample, after a model-based intervention. Next, the nonparametric WILCONXON test was applied, which allowed the null hypothesis to be rejected. The results allow us to infer that there is a statistically significant difference between the input and output test, which allows us to conclude that the model allows to strengthen the competences to identify the local contents of the text, to account for its global content and to evaluate the content of the text.

Keywords: Critical Reading, Metacognitive-Discursive Model, Rural Secondary Education.

1. Introduction

When approaching critical reading, from the educational field, reference is made to the competence to propose in-depth interpretations of texts (MEN, 1998), that is, having skills to recognize the structures of the texts read and launch conjectures about their ideological and aesthetic sense (Jurado, 2016); Practices that lead the student to understand the reality that surrounds him, the spaces of interaction and the global and diversified world that he faces day by day. As expressed by Vásquez (2015), there are many ways of reading, from one that is done for leisure to one that is specialized and requires comprehension skills to have an effect on the reader.

Therefore, the teaching of reading in the first grades begins in the approach of students towards the construction of meaning and continues throughout the training process as one of the most necessary aspects in the educational task, as proposed by the Ministry of National Education (MEN, 1998), reading should not be limited to the repetition of letters and words, rather, it must transcend into a practice that allows students to configure meanings from the relationships established between aspects of culture, the interaction between those who read, what is read and the context.

Reading is, therefore, a means through which the reader builds meaning in relation to the context, which implies developing cognitive, textual and discursive skills, which represent a high level of complexity for students. This implies a permanent reflection of teachers regarding teaching strategies, with the purpose of generating actions aimed at the development of these skills, especially in the Colombian rural sector where there are "enormous gaps of inequity in the quality of education" (Barón and Boneth, 2022, p.1), which leads to students not reaching the expected progress and losing the opportunity to enter an education that fulfill your expectations and dreams (Baron and Boneth, 2022).

In relation to the reflection on teaching strategies, research related to the strengthening of Critical Reading (LC) in high school students has been addressed in urban and rural contexts, highlighting greater scope in the urban context.

These investigations have focused, in the first place, on the design of pedagogical-didactic strategies for the teaching, development or strengthening of LC in the classroom (Páez & Rondón, 2014). In this sense, there is the

research of Alonso, Ospina & Sánchez (2014), of a qualitative type and with an ethnographic approach, which was based on the use of opinion articles in the press as a scenario for training critical readers in an educational institution. To this end, a didactic sequence was used that contemplated the following moments: literacy (recognition of the press in its structure, content and typologies); exploration, search and classification (on types of press, theme, opinion articles); reading opinion articles (reading on lines, between lines and behind lines); dissertation (possibilities of reflection, argumentation and counter-argumentation) and writing (planning and writing an article). The results reached are that to the extent that it brings secondary education students closer to the recognition of the diversity of voices and points of view on the different topics of national and international reality, a critical reader is formed with their certain competences: linguistic (linguistic resources, textual structure, discursive genre), cognitive (reading strategies: before, during and after), pragmatic and cultural (referents of the author, cultural level, intention), and evaluative (reasoned criticism, degree of convergence and divergence of opinions).

Similarly, Molina, Bernal & Ospina (2014), also ethnographic, use the advertisement as a text of culture that can be read critically by teachers in the classroom, taking into account their literacy in the languages that this text possesses to teach to read what is announced (denotative component) and what is enunciated (connotative component, symbolic significance), so that they can teach students to read these texts.

Likewise, Pérez, Ardila & Villamil (2014), conducted an investigation in three educational institutions in the District of Bogotá, which is based on the use of the internet as a teaching tool for LC, through the identification of the LC practices that teachers do from the internet (focus groups), description of those made by students (in-depth interviews) and characterization of the skills required for reading in Internet (documentary analysis). This leads to the proposal, in the form of an outline, of a didactic strategy that contemplates the diagnosis (conditions of the educational institution in relation to the internet), simulation of a pedagogical situation (implementation of a reader on the internet) and examples of modeling of tasks and activities in the classroom (guides).

Also, Mosquera & Rojas (2021), addressed the level of critical-intertextual reading through the reading of texts that circulate on digital platforms and that are read on digital devices, for which pedagogical workshops are proposed to strengthen LC processes based on videos of youtubers. This allowed them to progressively reach the critical-intertextual level in which they initially go from an exercise of reading / observation / individual analysis of a video or text and then move to a stage of dialogue / socialization / consensus in which the subjects share the perceptions they have, in order to expand the initial information by having the opportunity to share their ideas and listen to others the assessments on the same topic.

Secondly, it is assumed that LC should be worked by levels based on theoretical approaches ranging from the simplest to the most complex. Such is the case of Cubides, Rojas & Cárdenas (2017) in their review article "Critical Reading: Definitions, experiences and possibilities", they state that the work of the LC starts from the conceptualization that the teacher has about it and the fact of assuming its teaching by levels in which a differentiating character is presented, as proposed by the Icfes in the Saber test.

Badillo & Ruiz (2022), on the other hand, carried out a quantitative-descriptive non-experimental research that addresses the improvement of LC from the three levels of reading comprehension, applied in the student work guides that were carried out in a pilot test, based on remote education applied in rural educational contexts. In this research, SPSS was used to analyze the historical conditions of LC competition and to verify the progress between the Pre and Post Test. It is evident that working with the three levels of reading comprehension improves the performance of students in the LC and in the Saber test.

Romero & Ramírez (2021), propose a didactic unit based on socially relevant problems articulated to academic content to enhance the level of LC in high school students. The work was done under the qualitative-descriptive approach with 20 students, who underwent a diagnostic test that was analyzed by levels. With the didactic intervention, the students achieved a moderate progress in each of the levels addressed.

Third, LC is assumed to be an applied model that is developed in phases. Ramos (2020), who, through a documentary study, describes the characteristics and basic

elements of LC as a method for the development of competencies in text comprehension, which focus on: acquiring information, processing information, understanding information and applying information. It concludes that there is a need to generate didactic resources for the development of LC.

The previous investigations delved into the teaching of critical reading from perspectives that assume the understanding of journalistic, advertising and digital text genres from strategies that link semantic, structural, argumentation and reflection aspects on the text. Although this approach to the teaching of reading is valued, it is considered pertinent to assume the reader as an active subject who plans, regulates and evaluates his reading. In addition to reading as a social practice.

Therefore, the present research was oriented to design and apply a didactic proposal based on a metacognitive-discursive model for the strengthening of the critical reading of students of rural secondary education. For this, the Communicative Competences Module was applied so that students acquired the skills to understand the evident, enunciative, evaluative and sociocultural textual information of the texts, relating it to sociocultural practices and to produce argumentative texts, with cohesion and coherence, that respond to various communicative needs.

For the design, methodology and application of the program, it was based on the discursive metacognitive conception of reading oriented towards the construction of meaning (Ministry of National Education, 1998) and the competences and evidences that the ICFES (2018) published in the most recent version of the Orientation Guide saber 11 for educational institutions 2018-1 in Colombia. Thus, the classroom teachers placed the work sessions taking into account the contributions of Textual Linguistics (Dijk, Structures and functions of discourse, 1996; Dijk, The Science of Text, 1976), Discourse Analysis (Martínez, Discourse and Learning, 2004; Martínez, La orientación social de la argumentación en el discurso, 2007) and metacognition applied to the reading of texts (Solé, 1994; Velásquez, Peronard, Alonzo, Ibáñez, & Ordenes, 2006; Díaz & Morales, 2013).

Methodology

Proposal for intervention

To account for the impact of the work carried out in the communicative skills module, diagnostic and closure tests were applied before and after the implementation of the intervention proposal. Therefore, the application procedures that allow inferring these critical reading tests are analyzed below, based on the comparison between the percentages of student performance in each of the three competencies evaluated by the ICFES in the critical reading test:

1. Identify and understand the local contents that make up the text.

This competence consists of the ability to understand the meaning of words, expressions and phrases that appear explicitly in the text. The evaluation of this competence does not inquire about knowledge of grammar, but about the understanding of the semantic relationships that exist between the different elements that make up a sentence. In the absence of this competition, it is not possible to count on the following two (Colombian Institute for the Evaluation of Education, 2018, p. 17)

2. Understand how the parts of a text are articulated to give it a global meaning.

This competence consists of the ability to understand how the local elements that constitute a text are formally and semantically related, so that it acquires a global meaning (at the level of the paragraph, section, chapter, etc.). To that extent, the questions corresponding to this competence involve several local elements of a text (for example, different sentences or paragraphs) and require recognizing and understanding their articulation. This competence is necessary to have the next one. (Colombian Institute for the Evaluation of Education, 2018, p. 18)

3. Reflect from a text and evaluate its content.

This competence consists of the ability to face a text critically. It includes evaluating the validity of arguments, noticing assumptions, deriving implications, recognizing argumentative and rhetorical strategies, relating content to contextual variables, and so on. This is properly critical competence and as such requires an adequate exercise of the previous two. (Colombian Institute for the Evaluation of Education, 2018, p. 18)

The above, with the purpose of identifying in which skills the students improved and what aspects they should perfect in relation to the communicative competences addressed.

Research focus

To respond to the research problem, a quantitative methodology was defined with a pre-experimental design, which aimed to apply a pretest and posttest, to a related sample. A critical reading questionnaire consisting of 30 items, designed based on the features proposed by the ICFES (2009), was used to evaluate critical reading. Of the 30 items, 8 evaluated the first competition, 12 of the second competition and 10 items evaluated the third competition. The population was made up of 480 participants, who are students of the academic average of educational institutions located in rural areas of the Department of Córdoba Colombia. This study allowed to determine the statistically significant differences in the sample under study, before and after the application of a program based on a metacognitive-discursive model (independent variable) for the strengthening of critical reading (dependent variable). Accordingly, the following hypotheses were formulated:

H1: the application of a program based on a metacognitive-discursive model improves critical reading skills in a sample of 480 students.

H0: the application of a program based on a metacognitive-discursive model does not improve critical reading skills in a sample of 480 students

The hypothesis test was performed with the Wilcoxon statistic (nonparametric test), since the data did not comply with the assumption of normality and the measurement scale of the variables is ordinal.

Analysis of the results

The results of the empirical study were obtained through the hypothesis test, which was done using the nonparametric Wilcoxon test. This is because the data did not meet the assumption of normality (Kolmogorov-Sminornov test: $p < 0.05$) and the study was done with a related sample; that is, the same sample participated in both studies.

Descriptive statistics

Table 1. Pretest

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Low	273	56,9	56,9	56,9
	Middle	195	40,6	40,6	97,5
	High	11	2,3	2,3	99,8
	4	1	,2	,2	100,0
	Total	480	100,0	100,0	

Table 2. Exit test (posttest)

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Low	5	1,0	1,0	1,0
	Middle	91	19,0	19,0	20,0
	High	384	80,0	80,0	100,0
	Total	480	100,0	100,0	

According to tables 1 and 2, it can be affirmed that there is a statistically significant difference between the entrance and exit test, given that while in the first test the percentage of participants who are located at the high level of critical reading is 2.3%, in the second test the percentage rises to 80%. That is, a difference of 77.7%, which allows us to show a clear improvement in critical reading competence in the intervened population.

Table 3. Case Processing Summary

	Cases					
	Valid		Lost		Total	
	N	Percentage	N	Percentage	N	Percentage
Entrance test	480	100,0%	0	0,0%	480	100,0%
Exit test	480	100,0%	0	0,0%	480	100,0%

Table 4. Statistical

		Pretest	Posttest
N	Valid	480	480
	Lost	0	0
Stocking		1,46	2,79
Median		1,00	3,00
Standard deviation		,554	,433
Variance		,307	,187
Rank		3	2

Table 5. Wilcoxon Test Summary

Resumen de prueba de hipótesis				
	Hipótesis nula	Prueba	Sig.	Decisión
1	La mediana de las diferencias entre Prueba de entrada y Prueba de salida es igual a 0.	Prueba de rangos con signo de Wilcoxon para muestras relacionadas	,000	Rechazar la hipótesis nula.

Se muestran significaciones asintóticas. El nivel de significación es de ,05.

According to Wilcoxon's test, as $p = 0 < 0.05$, H_0 was rejected and H_1 was accepted; that is, the means between the pretest and posttest are significantly different. Thus, the difference of 1.33 on average between the pretest (1.46) and the posttest (2.79) was confirmed. Therefore, it was concluded that the program based on a **metacognitive-discursive model** improves critical reading skills in students who attend the academic average in rural areas of the department of Córdoba Colombia.

Discussion of results

According to the literature reviewed, it can be evidenced that studies related to critical reading in high school students revolve around the implementation of pedagogical strategies that are used to strengthen this competence. This means that there is a research trend for the study of the factors associated with the development of critical reading, so it is recommended that teachers have a didactic and theoretical training that allows them to improve the teaching practices of this competence.

The results of this research coincide with what was stated by Páez and Rondón (2014), when it refers to the fact that reading is the construction of meaning, and this is only possible within the framework of a personal and intimate encounter of the individual with the textual body, since account of this was the critical analysis made by the participants when deciphering, The subjective sense of activities developed within the intervention process, which were of great relevance for the creative capacity that the students demonstrated when it came to capturing their realities after assuming a critical position in the face of the social situations through which they have passed.

Likewise, the results of this research are consistent with the theoretical approaches of Jurado (2016), in the sense that readers are not formed individually, but require other subjects who become the interlocutors through which to share the ideas formed in the mind from the experience of reading. This could be evidenced in the activities developed by the students, who put into play mental processes, such as analysis, thinking and creativity, to achieve the purpose of this task. The foregoing allows us to infer that the text leads to the generation of other texts, from the elaboration of judgments and discussions against what is presented in the text addressed, since the interpretation is not only given on the personal level, but is strengthened to the extent that intertextual dialogues can be established. So reading is also a collective act.

With this approach, it was possible to elucidate the importance of generating strategies from the metacognitive and discursive model within the school scenario, aimed at strengthening the processes of textual comprehension from the participation of students, generating spaces for dialogues for the analysis and debate of the texts addressed, managing to show that the reader assumes an active practice in the planning, regulation and evaluation of his reading, attributes that are consistent with the teaching approach proposed by the Ministry of National Education (1988), and the contributions of textual linguistics of Dijk (1996). This fact allows us to advance in the construction of greater meanings, achieving the formation of critical readers.

The results of the present research allowed to demonstrate that the use of reading strategies from the metacognitive and discursive approach enabled students to acquire cognitive resources to approach reading strategically, to be able to identify the voices of the text and analyze the textual structures. Fact that coherent with the discursive and interactive perspective of the meaning of Martínez (2004) and the reading subprocesses of Solé (1994)

To conclude this space of discussion, in response to what was stated by Barón and Boneth, (2022), who affirms that from critical reading the development of capacities to think, discern and perform autonomously, reflectively, analytically and critically in today's society is achieved, since through this cognitive and metacognitive spaces are

generated for learning always starting from the realities through which the students go through.

Conclusions

As a general conclusion, it can be affirmed that the research hypothesis was accepted, since the statistical test showed that the program could improve critical reading competence in the participant sample.

With the application of the intervention program, it was possible to strengthen the development of critical reading in the population under study, with significant repercussions on their daily lives, since when addressing representative activities, whatever the topic, a metacognitive cycle is generated that affects the solidity of the knowledge acquired during the development and execution of the proposal. So much so that this type of strategies and activities could be established institutionally when presenting curricular content, since they allow the strengthening and development of critical reading, allowing to create, address, analyze, expose and argue their academic activities and situations of daily life.

According to the strategies developed in the application of the discursive metacognitive program, it could be inferred that the students managed to interpret, analyze, justify and argue, making use of textual typologies and literary genres, assuming a critical-reflective position in front of the situations presented related to their social environment and that, in a certain way, exert an influence on their lifestyle.

The results of this study present the need to consolidate institutional programs for the development of critical reading, because, although there are Curricular Guidelines for the transversality of communicative skills, in pedagogy it is necessary to open spaces for discussion and teacher training to implement didactic strategies from the discursive metacognitive approach, since this makes it possible to develop critical reading skills, Not from activities that only seek to evaluate, but from the different cognitive processes involved in each of the reading levels.

Finally, it is important to affirm that students do show interest in the work of the LC, because they see it as a tool that helps them improve their academic process and contributes to their growth as human beings. The different themes worked in the classroom, allow you to have different views of reality from the local, national and global

context. The above is of great value, since critical citizens are needed, who know how to use the information and reflect on it in terms of veracity, relationship between the text, the source and the purpose, among others, to understand and understand what happens in the different scenarios from the elaboration of their own criteria, within the framework of tolerance and communication.

References

- Alonso Malaver, R., Ospina Rodríguez, P., & Sánchez Camacho, P. A. (2014). Press rooms. Towards a critical reading of opinion articles in secondary education.
- Ávila, C. P. C., Higuera, M. R., & Soler, R. N. C. (2017). Critical reading. Definitions, experiences and possibilities. *Knowledge, Science and Freedom*, 12(2), 184-197.
- Alonso Malaver, R., Ospina Rodríguez, P., & Sánchez Camacho, P. A. (2014). Press rooms. Towards a critical reading of opinion articles in secondary education.
- Badillo Requena, Y. A., & Ruiz Cervera, W. H. (2022). Improvement of critical reading in high school students (Doctoral dissertation, UMECIT University).
- Barón, I., & Boneth, T. (2022). Critical reading and writing in rural schools. Master Route.
<https://rutamaestra.santillana.com.co/lectura-critica-y-escritura-en-la-escuela-rural/>
- Cubides, C. P., Rojas, M., & Cárdenas, R. N. (2017). Critical reading. Definitions, experiences and possibilities. *KNOWLEDGE, SCIENCE and Freedom*, 12 (2), 184-197.
- Flor Campo, F. M., Rubio Suárez, D. P., & Sánchez Arenas, B. N. (2021). Accompaniment model to strengthen critical reading skills in students of the tenth and eleventh grade of a rural educational institution in the department of Cauca-Colombia (Doctoral dissertation, Corporación Universitaria Minuto de Dios).
- Giron and others. (2011). Critical, creative and investigative reading for the development of communicative, cognitive and investigative skills in higher education. *Collection of Pedagogy*, 15-16.
- Gomez M, D. M. (September 1, 2020, p.1). Metacognition and Visible Thought. Retrieved from San Diego State University: <https://www.coursehero.com/file/96297622/MT25-Ficha-metacognicion-pensamiento-visblepdf/>

Gonzalez. (1996). Revistaparadigma.online. Retrieved from <http://revistaparadigma.online/ojs/index.php/paradigma/article/view/184>

about the processes of reading and writing. International Symposium. Mexico, the processes of reading and writing. Siglo Veintiuno editores (14 a, Mexico: iglo Veintiuno editores (14 a ed.).

Greenwood, D. E. (2016). Participatory Action Research: inspiring reference for research and teaching on water in Latin America. Water and Society Series 23 No 9. Lima: PUCP and Water Justice. "Pargmatic Action Research". Water and Society Series 23 No 9., 97.

Goodman, K. (2002). The reading process: considerations through languages and development. In: Ferreiro, E and Gómez Palacio, M. (comp.) (1998). New perspectives

Jury, F. (2016). Critical reading for critical thinking. Colombian Network for the Transformation of Teacher Training in Language. Bogotá: Redlenguaje.

MEN. (1998). Curricular Guidelines Series Catellana Language. Santa Fé de Bogotá : Ministerio de Educación Nacional.

MEN. (2018). National Results Saber 3° 5° and 9°. Bogotá: Government of Colombia.

MEN, M. D. (2016). Basic Learning Rights. V.2. Bogotá, Colombia: Panamericana Formas E Impresos S.A. Retrieved from <https://aprende.colombiaaprende.edu.co/>: https://aprende.colombiaaprende.edu.co/sites/default/files/nas_public/DBA_Lenguaje.pdf

MEN. (24 of 07 of 2016). Basic Aprendizaje_Lenguaje Rights. Colombia learns. Retrieved from https://aprende.colombiaaprende.edu.co/sites/default/files/nas_public/DBA_Lenguaje.pdf

MEN. (1998). Curricular Guidelines Spanish Language. Bogota: MEN

Muñoz, M. A., & Ocaña, d. C. (2016). Use of Metacognitive Strategies for Textual Comprehension. Cuadernos de Lingüística Hispánica, 223-244.

Molina, C., Bernal, E. & Ospina, A. (2014). Between the chameleonic seduction of desire and the unveiling of the female corporeal: a critical reading of the advertisement. In Páez

Martínez, R. M., & Rondón Herrera, G. M. Critical reading: proposals for the classroom derived from educational research projects, 91-102.

Mosquera Fonseca, T. I., & Rojas Sánchez, L. U. (2021). Read to transform: pedagogical proposal to strengthen critical reading in middle school students of the Adveniat Parochial School.

Páez Martínez, R. M., & Rondón Herrera, G. M. (2014). Critical reading: proposals for the classroom derived from educational research projects.

Pérez Bautista, S. Y., C.P. Ardila Medina, and H.Villamil Moreno. (2014). Critical reading on the Internet in secondary education. *Actualidad Pedagógicas*, (63), 83-98.
doi:<https://doi.org/10.19052/ap.2669>

Ramos, Y. B. B. (2020). Critical reading as a method for the development of skills in the comprehension of texts. *Magazine EDUCARE-UPEL-IPB-Segunda Nueva Etapa 2.0*, 24(3), 243-264.

Romero-Olarte, B., & Ramírez-Rojas, M. I. (2021). Critical reading from socially relevant problems. *Thought and Action*, (30), 6-20.

Rondón, G. (2014). Conditions and characteristics of a critical reader in the classroom. Critical reading: proposals for the classroom derived from educational research projects, 19-44.

Ramos, Y. B. B. (2020). Critical reading as a method for the development of skills in the comprehension of texts. *Magazine EDUCARE-UPEL-IPB-Segunda Nueva Etapa 2.0*, 24(3), 243-264.

Romero-Olarte, B., & Ramírez-Rojas, M. I. (2021). Critical reading from socially relevant problems. *Thought and Action*, (30), 6-20.

Rondón, G. (2014). Conditions and characteristics of a critical reader in the classroom. Critical reading: proposals for the classroom derived from educational research projects, 19-44.