Ocnos (2019), 18 (1): 21-30
DOI 10.18239/ocnos_2019.18.1.1781

OCNOS
Revista de Estudios sobre Lectura

Ocnos
Revista de Estudios sobre lectura
http://ocnos.revista.uclm.es/

Open Access
Full Text
Article

Metacognitive reading strategies to construct meaning and representation of written texts

Estrategias metacognitivas lectoras para construir el significado y la representación de los textos escritos

Aníbal Puente
https://orcid.org/0000-0003-3994-0553
Universidad Andrés Bello (Chile)

Michelle Mendoza-Lira
https://orcid.org/0000-0003-4275-1841
Universidad Andrés Bello (Chile)

Juan-Felipe Calderón
https://orcid.org/0000-0002-7248-4492
Universidad Andrés Bello (Chile)

Carolina Zúñiga
https://orcid.org/0000-0001-6338-1013
Universidad Andrés Bello (Chile)

Received:
03/08/2018

Accepted:
21/02/2019

ISSN: 1885-446 X
ISSNe: 2254-9099

Keywords:
Reading Comprehension;
Reading Strategies;
Metacognitive Strategies;
Digital Reading.

Palabras clave:
Comprensión lectora;
estrategias de lectura;
estrategias metacognitivas;
lectura digital.

Contact:
anibal.puente@unab.cl
michelle.mendoza@unab.cl
juan.calderon@unab.cl
carolina.zuniga@css.cl

Abstract

Competent readers are those who have adequate strategies to deal with different types of texts. Strategic capability does not occur naturally in most readers. For this reason, it is necessary to develop persistent and transversal training programs: with all disciplines and for all teachers committed to improving the academic profile. When training the strategies, the different levels of representation must be taken into consideration: the text base (micro / macro structure) and the situation model. Of the reading strategies set, the metacognitive ones are the ones that stand out most for their potential to improve and regulate the reader processes. It is recommended that when selecting the strategies, a flexibility criterion should be used, since on each occasion the teacher is the one who must select those that best suit the characteristics of the students and the diversity of the texts. Depending on the theoretical approaches, the strategies are also diverse.

Resumen

Lectores competentes son aquellos que poseen estrategias adecuadas para enfrentar los diferentes tipos de textos. La capacidad estratégica no se produce de manera natural en la mayoría de los lectores. Por esta razón es necesario desarrollar programas de entrenamiento persistente y transversal, con todas las disciplinas y para todos los maestros comprometidos en la mejora del perfil académico. Al entrenar las estrategias hay que tomar en consideración los diversos niveles de representación: la base del texto (estructura micro/macro) y el modelo de situación. Del conjunto de estrategias de lectura, las metacognitivas son las que destacan más por su potencial capacidad para mejorar y regular los procesos lectores. Se recomienda que a la hora de seleccionar las estrategias se utilice un criterio de flexibilidad, ya que en cada ocasión el docente es quien debe seleccionar aquellas que más convengan a las características de los alumnos y a la diversidad de los textos. Dependiendo de los enfoques teóricos, las estrategias también son diversas.

Puente, A, Mendoza-Lira, M., Calderón J. F., & Zuñiga, C. (2019). Metacognitive reading strategies to construct meaning and representation of written texts. *Ocnos, 18* (1), 21-30.
doi: https://doi.org/10.18239/ocnos_2019.18.1.1781

Introduction

Children's reading performance is a recurring theme of the discussions in schools. The reasons for the low reading level are not very well known, although we now know more about reading and what is for compared to what was known in the 1970s. Indeed, in that decade great progress was made with the implementation of cognitive models, whose development had a significant impact on certain areas such as reading (Britt, Golman & Rouet, 2012; Perfetti, 2007). Nevertheless, such knowledge has not yet resulted in an efficient practice to the advantage of teachers, students and schools.

Until recently, reading was seen as a decoding process of words that could be read visually as a whole or by breaking down their components: letters, sounds and syllables. According to this belief, once "command" of such decoding skills is acquired, they are automatically used to read any text and content (Fumagalli, Barreyro & Jaichenco, 2017). We have already gone beyond this approach to reading and we now have new elements, more complex and comprehensive.

According to this new perspective, decoding is necessary but it is not enough *per se* (Gutiérrez, 2017). Training competent teachers entails attaining high comprehension levels. Against the old concepts of a restrictive nature, reading comprehension now requires the specific application of skills, procedures and strategies of a general nature (Richter & Rapp, 2014).

The concepts of naïve reader and competent reader are used in recent literature (*Programme for International Student Assessment,* PISA) (Organisation for Economic Cooperation and Development [OECD], 2018). Naive readers normally remains in the external part of the text and lacks reading skills and experience. Their low level of involvement makes them vulnerable to the requirements of complex texts. Since they lack inference and cultural background strategies, naïve readers get flustered with the sterile intent to decode meanings (Cerrillo, 2010). While competent readers explore the text in depth until they get a coherent understanding of the text as a whole. Therefore, they have to acquire a series of skills and strategies such as the ability of reading self-observation, explaining the processes, valuation of their abilities and efforts; and awareness of text-reader, reader-text interactions (Mendoza, 2008).

This article is going to deal with the theoretical and strategic aspects that define the profile of a competent reader. To that end, we are going to explore the scientific contributions of Cognitive Experimental Psychology. The new concept of reading from the perspective of the PISA reference framework (2018) is included as an important aspect: reading competence as comprehension, use, assessment, reflection and commitment to the texts to achieve one's goals, to develop personal knowledge and potential and to participate in society. The models and the representation levels of the complex comprehension process are revised in this conceptual framework. In the past, the primary and overriding interest of students in acquiring command of reading competence lied in being able to understand, interpret and reflect on unique texts. Although these skills are still important, as increasing emphasis is placed on the integration of new information technologies in the social and working life of citizens, the definition of reading competence must be updated and extended. The wide range of new sills linked to tasks required in the 21st century should be noted (Spiro, Deschryver, Hagerman, Morsink & Thompson, 2015).

Development of the conceptual framework

What does understanding reading comprehension imply?

The first challenge faced by teachers is when they realise that decoding is not enough to access reading comprehension. In first place, such fact leads to despair and frustration among teachers

due to the difficulty for students to understand the information contained in the texts or their inability to express creative thinking (Morrisroe, 2014).

The second challenge faced by decoders is the inability to read the books selected in the curriculum and the requirements in terms of performance and achievement. Decoder's pace normally has very poor results compared to the performance shown by good comprehenders (Sánchez-Miguel, 1990).

Comprehension is the objective of reading, just as composition is the objective of writing. Therefore, meaning is not implied in letters and sounds, but it lies in the minds of authors and readers and in the context instead. They give meaning to what is written and read. On the other hand, reading is an essential element to promote civic and social coexistence (Yubero, Caride, Larrañaga & Pose, 2016).

One aspect that is not paid sufficient attention is the knowledge students should have to understand the reading materials, as well as what is the purpose of reading and the reasons for it (Ferreiro, 2008; Portalatin y Puente, 2018; Tlochinsky, Ribera & García-Parejo, 2012). Teachers must thus analyse the selected materials very carefully, in order for students to read it with a high level of comprehension; because, if the text is very difficult, the reader will feel frustrated and may lose interest and, on the contrary, if the text is very easy, the reader will get bored (Calero, 2018). In this regard, research carried out by Materán & Escalante (2002) concludes that the content of some texts most commonly used in the school environment and recommended by teachers is structured to be used in a level different to that who corresponds. In other words, children are obliged to read whether very difficult or very easy texts that do not match their intellectual or language development.

Comprehension's mental model

Building a mental model is essential to understand, train and assess reading comprehension. From the perspective of Cognitive Psychology, reading comprehension is seen as a high-level process where both the information provided by the text and by the reader with his/her previous background knowledge complement one another to obtain a final interpretation of the message.

In order to build the model, we have to know the blocks that make it up. The first block is the information stored in knowledge structures (Johnson-Laird, 1983). A text's highest comprehension level would be to create, modify and integrate knowledge structures. These structures are somehow the engine that promoted inference based on textual information (Cain & Oakhill, 1999). To sum up, comprehension is a process whereby knowledge is integrated beyond the juxtaposition of the ideas expressed in the chain of textual sentences.

The second block is the relationship between the reader and the text. If we take this relationship into account, comprehension is seen as a process whereby the reader uses the keys provided by the author based on his/her own knowledge or experience to infer the meaning the latter wants to convey. In other words, comprehension is a process whereby meanings are built and where explicit information has to be combined with general and specific knowledge provided by the reader (Kintsch, 1994).

The third block is related to strategic behaviour. The use of strategies allows to build meanings based on the text's keys, as well as on the information kept in the reader's mind related to such keys. Such strategies are very useful resources that promote inference, as the text cannot be totally explicit and the exact meaning of words even has to be inferred based on the context (Riffo, 2016).

The fourth block is related to the discourse's mental representation, as a holistic way to understand a situation that is conveyed linguistically. When we speak about a mental representation, we refer to an "internal substitute or model" of reality, a mediator between the medium (or text) stimulus and the behaviours of the reading organism (Greco, 1995).

Representation levels

As the reader becomes familiar with the text, he/she builds different increasingly sophisticated representation levels until he/she obtains the semantic essence (Standtler & Bromme, 2014). The textual level, also known as superficial level, does not imply that it is not necessary: it is the basic level that allows beginning readers to decode spellings and vocabulary. Readers falling in this level may remember the text's literality, although they may not understand the meaning (Parodi & Julio, 2017).

If we analyse the text from the second representation level, we can identify the list of propositions, highlighting the semantic and rhetorical relationships between the different ideas of the text. These ideas or propositions ensure coherence by overlapping or repeating arguments. At this level, propositions are linked to each other at a local level. The important fact here is that the text's meaning is captured; for example, when we realise that two sentences have the same meaning, although their superficial drafting may be different. For the avoidance of complications resulting from multiple superficial representations that may be linked to the same meaning, elementary units or ideas called propositions are used. The structured set of propositions that represents the text's meaning is called text base (Riffo, 2016).

The third representation level is the situation or reference model: this level integrated the base text's information, although it is not included in the knowledge provided by the reader in order to interpret the overall meaning and attain a deep level of comprehension. The objective of this level is to discover the macrostructure of the set of propositions that summarise the subject or the general ideas of the text, which, when hierarchically ordered, represent overall organisation (Sánchez-Miguel, 1990).

In last place, the situation model is where we should get when we read, as we learn texts thanks to it. The situation model includes the reader's objectives, beliefs, background knowledge, knowledge on the text's fields of knowledge, etc. For this reason, it is said that reading is always personal and that two different people (Van-Dijk y Kintsch, 1983) do not understand the same text in the same way. Two sublevels can be identified in the basic text: the microstructure and the macrostructure.

Building the microstructure

The microstructure is the set of linked propositions analysed sentence by sentence. One essential cognitive operation that should be performed by the reader throughout the reading progress consists on linking each new piece of information to those that have already been read, linking it to what is known about it at the same time. This means that the reader should create a text base where each idea or proposition is linked to other adjacent ideas and all of them are hierarchically organised based on their relative (Belinchón, Igoa & Rivière, 2005). In other words, in order to understand it essential to establish coherence and its cognitive representation; therefore, this operation is closely linked to one property that defines the discourse and differentiates it from other language units (Sanders & Noordman, 2000).

Cohesion is one of coherence's most visible procedures; its function is to establish internal and significant relationships through intratextual links and procedures. For this reason, it uses lexical and grammatical mechanisms that guarantee the referent, such as anaphoras, cataphoras and proformas. Anaphoras and

cataphoras are reference grammatical devices that avoid unnecessary repetitions and allow for the re-emergence of a referent in a text by using substituted (pronouns, adverbs, etc.). Proformas are words or morphemes that can replace syntagmas; unlike syntagmas, proformas lack any content of their own, and their referent is determined by the background or communicative situation. Pronouns are the most form of proformas.

Coherence at a micro level is not homogeneous, Graesser, Singer & Trabasso (1994) draw a distinction between two types of coherence: local and global. The first type is established between adjacent ideas of the text and their constituent elements, by linking processed information to immediately preceding information, which is still active in working memory. On the contrary, global coherence is of a more general nature and involves establishing links in terms of overall content of the message, by linking information read at a specific time to information already read previously (Kintsch, 1998).

Building the macrostructure

All texts and discourses have an overall meaning, called topic or theme (Kintsch & van Dijk, 1978). Hence, the need to reduce and organise the microstructure's information in a more abstract structure linked to the message's overall meaning. The macrostructure thus refers to the overall meaning that permeates the text and gives a meaning thereto, and includes the following functions: a) to provide overall coherence; b) to individualise information related to the central theme, to establish a hierarchy and to draw distinctions; c) to reduce long fragments to a manageable number of ideas.

When identifying the macrostructure, thrusts giving a uniform, holistic meaning to what has been read should be capture. Unlike the microstructure, the macrostructure has a more overall nature; it is defined as propositional common denominator. Thanks to its overall nature, the macrostructure takes place at the essence, theme or thesis level; in other words, it is the textual construction or architecture that provides coherence to the text and links paragraphs.

Implementing macro-rules is a strategy when it comes to deal with the main thrust of the text. We could point out that it is one of the concepts discovered by Kintsch and his research team, with added significance in the field of reading comprehension and discourse. Its roots lies in Psycholinguistics and Cognitive Psychology of the three last decades of the 20th century (Rosselli & Matute, 2010).

Withdrawal-selection is the most basic macro-rule: based on a sequence of propositions, those that are not necessary to interpret other propositions of that sequence are withdrawn, and those explicit proposition(s) that link the entire sequence are selected. As a macro-rule, generalisation works as follows: in a sequence of propositions, each sequence is replaced by a more general proposition that is not included in the text and links each one of them. Construction as a macro-rule replaces a sequence of textual propositions by an overall idea built by the reader, which links the meaning of the entire sequence using the reader's words (Sánchez-Miguel, 1993).

Building the superstructure

According to Van-Dijk & Kintsch (1983), the superstructure is the "frame" of the parts that make up the text and varies according to the type of text. The superstructure allows us to speak about discourse typology, although not all texts have a clear superstructure. The concept of superstructure refers to the way or how texts are organised (Bocaz y Soto, 2000). Superstructures are overall structures, independent from the content, which is somehow limited according to the basic textual typology scheme. When competent students face a text, one task performed

in the first place is to discover what type of text are facing (Parodi & Julio, 2015).

So far, understanding a text means disentangling the ideas that lie in the words used in the text; linking ideas; assimilating and/or building any existing or envisageable hierarchies resulting from such ideas; identifying the various relationships that articulate overall ideas. In other words, understanding means somehow replicating the text's semantics in our minds, together with something else, as explained hereinafter.

Building the situation model

According to the theory of Kintsch & Van-Dijk (1983), reading is a highly complex process that required complex operations instead of rules; such operations are more or less strategic and receive information derived from the reader's background knowledge. The key concept of "situation model" has recently been added to this theory, a construct in episodic memory that represents the event or situation dealt with in the text. This means that the text only represents those meanings expressed thereby, but actual comprehension involves building a new model or updating an existing one (Speer, Reynolds, Swallow & Zacks, 2009).

Such models are subjective; therefore, comprehension is personal, *ad hoc* and unique, and defines a specific interpretation of a specific text at a specific time. The most important fact about situation models is that they result from the information derived from the reader's background knowledge. In other words, the reader generates bridge propositions, inferences, fragments of his/her own background knowledge (Radvansky, 2009).

Building a model based on the world or situation described in the text is a must to understand such text. Therefore, understanding is not only replicating the text's propositions but also having the situation or world described in it. The situation model should and needs to be linked to and integrated in our own knowledge structures. Being aware of this second dimension involves transcending the text and gaining abstract knowledge that allow us to deal with them and with other existing knowledge, new situations (Zwaan, 2015).

Characteristics of competent readers

Modern schools need to solve some urgent problems, such as enhancing the reading habits and poor reading performance of students of primary, secondary and university education (Cerrillo, Larrañaga & Yubero, 2002). All indicators (such as PISA) suggest that the reading level of students needs to be enhanced urgently. The first step to begin this task is to draw a distinction between competent and non-competent readers (Dunlosky, Rawson, Marsh, Nathan & Willingham, 2013).

1. Competent readers use their background knowledge to give meaning to the reading process: new information is better learnt and remembered when it is integrated in relevant background knowledge previously acquired or in existing schemes. As the reader obtains new information, he/she triggers other schemes, creating new ideas and widening his/her background knowledge (Richter & Rapp, 2014).
2. Comprehension monitoring throughout the entire reading process is an important strategy used by competent readers. Reading supervision is a primary mechanism used by proficient readers to give meaning to what they are reading; competent readers also correct and regulate the text's comprehension as soon as they identify any problem (Romero, Trigo & Moreno, 2018).
3. Proficient readers correct comprehension mistakes as soon as possible. Competent readers know what to do when they realise that they do not understand what they are reading (Çubukçu, 2008). Whether they make syntax or interpretation errors, they are willing to get back to the text to solve any

comprehension problem. An example of this ability enables readers to identify inconsistencies as they are reading (Ben-Eliyahu & Linnenbrink-García, 2015).

4. Readers who are not able to draw a distinction between relevant and trivial information cannot be classified as efficient readers. Establishing what is important when reading helps to draw a distinction between core information and supplementary or secondary information, depending on the purpose of reading. Once these relevance objectives are achieved, it is easy to make a valid summary if combined with the identification of keywords from the text (Dinsmore, Loughlin, Parkinson & Alexander, 2015).
5. Competent readers have the ability to synthesise information from the various parts of the text (Vidal-Abarca, Maña & Gil, 2010). Use of comprehension strategies to synthesise relevant information shows the reader's expertise: technical underlining, highlighting, schematisation, etc. Knowing each word's grammatical function is also important: pronouns, nouns, adjectives, adverbs, verbs, prepositions and conjunctions.
6. Making inferences when and after reading is also an essential strategy of competent readers. Studies related to the reading comprehension process have found inferences about the text's content, whether using the heading, the title or the first paragraph thereof; in short, good readers are always inferring. Inferences are the very essence of reading comprehension to the extent that they have four functions: a) they resolve lexical ambiguity; b) they resolve pronoun and noun references; c) they provide the necessary background to understand the sentences; and d) the provide a broader framework for interpretation; in other words, a model that is necessary to process from top to bottom, from the reader to the text (Tolchinsky *et al.*, 2012).
7. Competent readers ask questions, they do not wait for someone to ask about any text. They stimulate higher levels of knowledge, thus enhancing comprehension and learning. Before reading, it is advisable to ask questions about the text: what do I know about this? What other themes or texts that I have read previously can be linked thereto? Such questions may vary according to the characteristics of each text and can be adapted to the reader's intention, but what is important here is the fact that it has an impact on the essential elements of the text, from a provided information-oriented approach in order to be able to answer questions previously raised.

Final thoughts

It is hard to include the concept of competent reader in a uniform scheme (Cassany, Luna & Sanz, 1998; Colomer, 2010). It is important that the scheme matches the criteria widely accepted as satisfactory regarding what competent readers should do: covering significant units greater than words; making assumptions and testing hypotheses; inferencing and organise hierarchically contents; filling empty spaces; searching through the intertextual maze; guiding the meta-cognitive processes and operations; summarising texts with their own contributions; moving back and forward in the text in a suitable way; solving problems; using information to give meaning to the text; extract the meaning of the various parts and the whole to link new and existing concepts (Aliagas & Castellá, 2014).

There are different texts that work in an interactive way and combine concepts, pictures and other sensory and musical elements, as well as movements. All the foregoing require strategist, multi-sensory readers (Ferreiro, 2008). This means that they can build different interpretations and build different types of meanings based on the different ways of reading. They use multimodal reading, link reading (through hyperlinks), interactive reading in forums, blogs and the social media (Facebook, Twitter, Youtube); they also use critical reading when acting as commentators, by outlining their

opinion in a forum; multi-sensory reading, trough different meanings and ways of reading; collective reading to the extent that they make interpretations with other readers of the web (Cassany, 2014).

References

Aliagas, C., & Castellà, J. M. (2014). Enthusiast, hesitant and resistant teachers towards the one-to-one laptop programme: A multi-site ethnographic study in Catalonia. In M. Stochetti (Ed.), *Media and Education in the Digital Age. Concepts, Assessments, Subversions* (pp. 237-258). Londres, Reino Unido: Peter Lang.

Belinchón, M., Igoa, J., & Rivière, A. (2005). *Psicología del lenguaje. Investigación y teoría*. Madrid: Trotta.

Ben-Eliyahu, A., & Linnenbrink-García, L. (2015). Integrating the regulation of affect, behavior, and cognition into self-regulated learning paradigms among secondary and post-secondary students. *Metacognition and Learning*, *10*(1), 15-42. doi: https://doi.org/10.1007/s11409-014-9129-8.

Bocaz, A., & Soto, G. (2000). Narrar y exponer: el tratamiento del discurso en la reforma educacional. *Artes y Letras del Mercurio*, 26 de noviembre, 20-21.

Britt, M.A., Goldman, S.R., & Rouet, J.F. (Eds) (2012). *Reading: From words to multiple texts*. Nueva York, Estados Unidos: Routledge. doi: https://doi.org/10.4324/9780203131268.

Cain, K., & Oakhill, J.V. (1999). Inference making ability and its relation to comprehension failure in young children. *Reading and Writing*, *11*, 489-503. doi: https://doi.org/10.1023/A:1008084120205.

Calero, A. (2018). *Comprensión Lectora. Estrategias que desarrollan lectores autorregulados*. Madrid: Lectora.org.

Cassany, D., Luna, M., & Sanz. G. (1998). *Enseñar lengua*. 4ª ed. Barcelona: Graó.

Cassany, D. (2014). *En_línea: leer y escribir en la red*. Barcelona: Anagrama.

Cerrillo, P.C. (2010). *Literatura infantil y juvenil y educación literaria. Hacia una nueva enseñanza*. Barcelona: Octaedro.

Cerrillo, P., Larrañaga, E., & Yubero, S. (2002). *Libros, lectores y mediadores: La formación de los hábitos lectores como proceso de aprendizaje*. Cuenca: Servicio de Publicaciones de la Universidad de Castilla-La Mancha.

Colomer, T. (2010). *Introducción a la literatura infantil y juvenil actual*. Madrid: Síntesis.

Çubukçu, F. (2008). How to enhance reading comprehension through metacognitive strategies. *The Journal of International Social Research*, *1*(2), 83-93.

Dinsmore, D.L., Loughlin, S.M., Parkinson, M.M., & Alexander, P.A. (2015). The effects of persuasive and expository text on metacognitive monitoring and control. *Learning and Individual Differences*, *38*, 54-60. doi: https://doi.org/10.1016/j.lindif.2015.01.009.

Dunlosky, J., Rawson, K.A., Marsh, E.J., Nathan, M.J., & Willingham, D.T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, *14*(1), 4-58. doi: https://doi.org/10.1177/1529100612453266.

Ferreiro, E. (2008). Acerca de las rupturas o continuidades en la lectura. In M.I. Borrero-Pardo. (Coord.), *Lecturas complementarias para maestros. Leer y escribir con niños y niñas*, (pp. 79-92). Bogotá, Colombia: Fundalectura y Fundación Corona.

Fumagali, J.C., Barreyro, J.P., & Jaichenco, V.I. (2017). Fluidez lectora en niños: cuáles son las habilidades subyacentes. *Ocnos*, *16*(1), 50-61. doi: https://doi.org/10.18239/ocnos_2017.16.1.1332.

Graesser, A.C., Singer, M., & Trabasso, T. (1994) Constructing inferences during narrative text comprehension. *Psychological Review*, *101*(3), 371-395.doi: https://doi.org/10.1037/0033-295X.101.3.371.

Greco, A. (1995). The concept of representation in Psychology. *Cognitive Systems*, *4*(2), 247-256.

Gutiérrez, R. (2017). Efecto de la lectura compartida y las habilidades prelectoras en el aprendizaje lector. *Ocnos*, *16*(2), 17-26. doi: https://doi.org/10.18239/ocnos_2017.16.2.1356.

Johnson-Laird, P.N. (1983). *Mental models: Toward theory of inference, language and consciousness*. Cambridge, Reino Unido: Havard University Press.

Kintsch, W. (1994). Text comprehension, memory and learning. *American Psychologist*, *49*(4), 294-303. doi: https://doi.org/10.1037/0003-066X.49.4.294.

Kintsch, W. (1998). *Comprehension: A paradig for cognition*. Cambridge, Reino Unido: Cambridge University.

Kintsch, W., & Van-Dijk, T. (1978). Toward a model of text comprehension and production. *Psychological Review, 85*(5), 363-394. doi: https://doi.org/10.1037/0033-295X.85.5.363.

Materán, C., & Escalante, D. (2002). *Lecturabilidad de textos escolares de tercer grado en el Municipio Trujillo*. (Trabajo de Grado inédito). Universidad de Los Andes, Colombia.

Mendoza, A. (2008). *El intertexto lector*. Alicante: Biblioteca Virtual Miguel Cervantes.

Morrisroe, J. (2014). *Literacy changes lives. A new perspective on health, employment and crime*. Londres, Reino Unido: National Literacy Trust.

Organización para la Cooperación y el Desarrollo Económicos (2018). *Programme for International Students Assessment, PISA, 2018. Marco de referencia preliminar para competencia lectora*. Bogotá: Publicación del Instituto Colombiano.

Parodi, G. & Julio, C. (2015). Más allá de las palabras: ¿Puede comprenderse el género discursivo desde un único sistema semiótico dominante? *Alpha*, *41*, 133-158. doi: https://doi.org/10.4067/S0718-22012015000200011.

Parodi, G. & Julio, C. (2017). No existen solo palabras en los textos escritos: algunas teorías y modelos de comprensión de textos multimodales o multisemióticos, *Revista Investigaciones sobre Lectura*, vol. 8, 27-48.

Perfetti, C.A. (2007). Reading ability: Lexical quality to comprehension. *Scientific Studies of Reading*, *11*, 357-383. doi: https://doi.org/10.1080/10888430701530730.

Portalatin, N., & Puente, A. (2018). De la teoría a la praxis: un proyecto de lectura con estudiantes universitarios. *Revista de Educación y Sociedad*, 12, 11-30.

Radvansky, G. (2009). Spatial directions and situation model organization. *Memory & Cognition*, *37*, 796-806. doi: https://doi.org/10.3758/MC.37.6.796.

Richter, T., & Rapp, D.N. (2014). Comprehension and validation of text information: Introduction to the special issue. *Discourse Processes*, *51*, 1-6. doi: https://doi.org/10.1080/0163853X.2013.855533.

Riffo, B. (2016). Representaciones mentales en la comprensión del discurso: Del significante lineal al modelo de situación. *Revista Signos, 49*, 205-223. doi: https://doi.org/10.4067/S0718-09342016000400010.

Romero, M.F., Trigo, E., & Moreno, P. (2018). De la comprensión lectora a la competencia literaria a través de la obra de Eliacer Cansino. *Ocnos, 17*(3), 68-85. doi: https://doi.org/10.18239/ocnos_2018.17.3.1776.

Rosselli, M. & Matute, E. (2010). Desarrollo cognitivo y maduración cerebral. In M. Rosselli, E. Matute y A. Ardila (Eds.), *Neuropsicología del desarrollo infantil*. México: Manual Moderno.

Sánchez-Miguel, E. (1990). *La comprensión de textos en el aula*. Salamanca: ICE.

Sánchez-Miguel, E. (1993). *Los textos expositivos. Estrategias para mejorar su comprensión*. Madrid: Santillana.

Sanders, T.J.M., & Noordman, L.G.M., (2000). The role of coherence relations and their linguistic markers in text processing. *Discourse Process, 29*, 37-60. doi: https://doi.org/10.1207/S15326950dp2901_3.

Speer, N., Reynolds, J., Swallow, K., & Zacks, J. (2009). Reading stories activates neural representations of visual and motor experiences. *Psychological Science*, *20*, 989-999. doi: https://doi.org/10.1111/j.1467-9280.2009.02397.x.

Spiro, J.J., Deschryver, M., Hagerman, M.S., Morsink, P., & Thompson, P. (Eds) (2015). *Reading at a crossroad? Disjuntures and Continuities in Current Conceptions and Practices*. Nueva York, Estados Unidos: Routledge.

Standtler, M., & Bromme, R. (2014). The content-source integration model: A taxonomic description of how readers comprehend conflict scientific information. In D.N. Rapp, & J. Braasch (Eds.), *Processing inaccurate information: Theoretical and applied perspectives from cognitive science and the educational sciences* (pp. 379-402). Cambridge, Reino Unido: MIT Press.

Tolchinsky, L., Ribera, P., & García-Parejo, I. (2012). Conocimientos iniciales y logros de los alumnos en el aprendizaje de la lectura y la escritura. *Cultura y Educación*, 24(4), 415-433. doi: https://doi.org/10.1174/113564012803998811.

Van-Dijk, T., & Kintsch, W. (1983). *Estructuras y funciones del discurso*. México: Siglo XXI.

Vidal-Abarca, E., Maña, A., & Gil, L. (2010). Individual differences for self-regulating task-oriented reading activities. *Journal of Educational Psychology, 102*(4), 817-826. doi: https://doi.org/10.1037/a0020062.

Yubero, S., Caride, J.A., Larrañaga, E., & Pose, H. (2016). *Educación social y alfabetización lectora*. Madrid: Síntesis.

Zwaan, R. (2015). Situation models, mental simulations, and abstract concepts in discourse comprehension. *Psychonomic Bulletin & Review, 23*, 1028-1034. doi: https://doi.org/10.3758/s13423-015-0864-x.