Beereaders

From Research
to Innovative Practice

Index

Introduction

Reading is not only a means of accessing knowledge but a powerful educational tool that allows for thinking and learning (Solé, 2007). The importance of students' reading skills and their relationship with their academic achievement is indicated by many researchers, such as Keskin (2013), Yıldız (2013), and Kerubo (2014). Solé (2012) emphasizes the close relationship between reading competence and learning.

Reading texts with comprehension means that the student will understand the purpose and function of the text, be aware of the main idea and how it develops from one paragraph to another, and understand the meaning of sentences and the relationships among them (Hijazi, 2018). Students who cannot read appropriately and who cannot process and comprehend what they read will not be able to succeed (Kerubo, 2014).

According to a 2016 report by the Child Trends Institute, "Latinos in Literacy: Hispanic Students' Progress in Reading," students who are still poor readers by the end of third grade are less likely to understand what is taught in later grades. And, the Report Notes, reading achievement in fourth grade is a reasonably good predictor of high school graduation rates.

Furthermore, employers rank reading and writing as significant deficiencies in their new hires and concurrently rank reading comprehension as an important skill for workplace success (The Conference Board, 2006). PISA studies (2002) show the direct relationship between successful reading performance and better academic results.

However, we know that many Spanish-speaking students struggle with reading and reading comprehension.

- According to a recent study carried out by PISA (Program for International Student Assessment, 2018), 50% of young people across the Spanish-speaking world do not understand what they read and are not reading at grade level.

- The PISA 2018 results confirm that Latin America is facing a learning crisis. On average, 15-year-old students in the region are three years behind in reading.

- As of January 2021, statistics show that about 13.17 million Hispanic families were living in the U.S. Roughly 80% of the country's English Language Learners (ELLs) identify as speaking Spanish at home. Despite a widespread

emphasis on English instruction in U.S. public schools, fewer than one-third of K-12 ELL students earn average or above-average reading comprehension scores.

Lack of strong reading comprehension among Spanish-speaking students will have a tremendous negative impact on these students' ability to achieve academically and in their careers. As the 2018 PISA Report warns, "Students who do not achieve the basic level of proficiency in reading are not able to identify the main idea in a text, find information based on explicit criteria, or reflect on the purpose and form of texts when explicitly directed to do so. This is very problematic as students who are not able to achieve the basic reading proficiency level will not be able to continue learning and face a high risk of dropping out of school." (2018 PISA Report)

The Solution

Beereaders' goal is to improve the reading comprehension of Spanish-speaking students worldwide by encouraging the development of effective reading habits and reading comprehension strategies, and nurturing and developing a love of reading.

We believe, based on research, that if students consistently engage with authentic and culturally relevant texts on a motivating game-like platform for their learning experience, the result will be improved reading comprehension, a deepening love of reading, and motivation to read more.

The Beereaders' digital reading comprehension program is an engaging digital supplemental program that develops and strengthens Spanish-speaking students' reading comprehension in Spanish. The focus is on the development of reading competence, with **all students reading more and better**. Our digital program is based upon a foundation of research in reading comprehension, student motivation, and culturally responsive teaching and learning.

The research-based Beereaders' program, which supplements and complements reading instruction and curricula for students in grades 2-12, features:

- Reading selections from across the Spanish-speaking world reflect the culture and values of Spanish-speaking students and encourage the development of cultural awareness and culturally relevant learning.

- Evidence-based practices that support and strengthen students' reading comprehension in Spanish.

- Integrated, ongoing assessment of comprehension in a game-like, motivating environment that supports, guides, and encourages students to read.

Research guides our approach to ensure that the Beereaders' content and platform are grounded in sound principles of culturally relevant and responsive teaching that yields positive results for Spanish-speaking students (Nieves, 2015; Rodriguez, 2014). Our team, consisting of Spanish and biliteracy reading experts

and practitioners, looks to the practices grounded in current research to create and integrate opportunities for students to engage with culturally relevant texts in various modalities (Sharma & Christ, 2017) on the Beereaders platform.

Beereaders supports the notion of creating competent, engaged readers through the interaction of the reader's skills and strategic reading practice. The strands that underlie the reading process of our platform focus on vocabulary development, the activation of students' prior knowledge, the use of the digital narrator to strengthen the recognition of words and phrases, the integration on ongoing assessment at different levels, and the use of digital support tools that will result in a competent reading experience.

Strengthening of Spanish reading comprehension skills and strategies will lead to improve academic performance of students in a Spanish-only academic setting, as well as in bilingual, dual language, and heritage language programs, in which biliteracy (Spanish and English) is a goal (Butvilofsky & Escamilla, 2013; Soto Huerta, 2012; Sparrow, Butvilofsky, Escamilla, Hopewell, & Tolento, 2014).

Research and the Process of Reading Comprehension

Reading comprehension requires the coordination of multiple linguistic and cognitive processes including, but not limited to, word reading ability, working memory, inference generation, comprehension monitoring, vocabulary, and prior knowledge (Perfetti, Landi, & Oakhill, 2005). These are all active and complex processes that require continuous construction of meaning from text (Durkin, 1993). These processes are both automatic and strategically cognitive, enabling a student to create a mental representation of the text (van den Broek & Espin, 2012).

Comprehension of a text encapsulates a student's background knowledge, basic reading skills (decoding text), inferencing abilities, text structure, vocabulary, and overall motivation (Fonseca, Pujals, Lasala, Logomarsino, Migliardo, Aldrey, Buonsanti & Barreyro, 2014)
Effective comprehension also requires the reader to engage in strategic mental processing, including metacognition, metalinguistic, and self-monitoring (van den Broek & Espin, 2012; Yovanoff, Duesbery, Alonzo, & Tindal, 2005). All of these elements, most notably vocabulary, inferencing, and background knowledge, are acquired over time.

Research supports effective interventions for improving reading comprehension and provides the foundation for the instructional design, content, instructional tools, and resources present in the Beereaders' digital platform.

Elements of Effective and Evidence-Based Interventions for Reading Comprehension in the Beereaders' Program

The Beereaders' program aligns with the research- and evidence-based components of effective interventions to improve reading comprehension.

A large body of evidence indicates that reading comprehension interventions are effective when they are consistently implemented, intensive, recursive, and tied to explicit strategies that readers employ (Mastropieri, Scruggs, & Graetz, 2003; Sencibaugh, 2007). The National Reading Panel (2000) review of reading comprehension strategies yielded the same conclusion. Text structure refers to how ideas or facts are related on the printed page, such as in a sequence, a comparison, a question, and answer, or a cause and

effect. Beereaders' content supports explicit instruction in text structure for improving comprehension by providing leveled text with a variety of structures and features readers encounter across genres and types of text.

Current research also suggests that professional development training in strategies based on text structure produces significantly improved reading comprehension outcomes for students (Sencibaugh, 2007). Within the Beereaders platform, educators can access on-demand professional development video modules aligned with specific reading comprehension instructional strategies. Along with explicit and intensive instruction, research indicates more significant gains in reading comprehension when students receive personalized learning opportunities to engage in reading a variety of texts (McDonald Conner et al., 2009). Beereaders offers students personalized reading and learning experiences every time they log on. Also, supplemental activities in the Teacher Platform are included that further personalize the reading experience for each student's individual instructional needs, to support improved reading comprehension.

When students read and understand a text, they build new knowledge both from the information in the text and from related knowledge and experience that they bring or build in the process of reading.

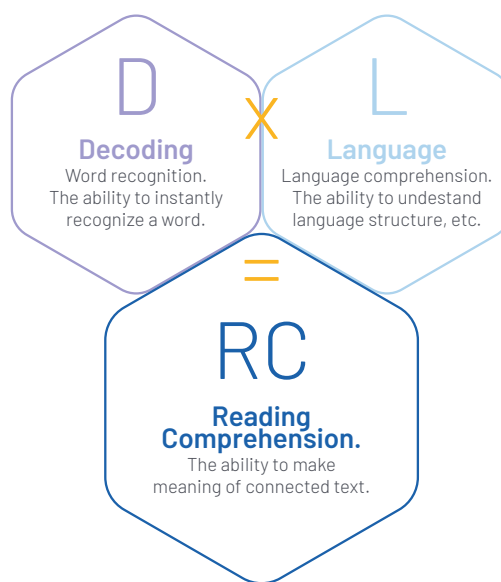The Organization for Economic Cooperation and Development (OECD, 2000; 2009) defines reading competence as:

[...] the ability to understand, use, reflect on and be interested in written

texts to achieve one's objectives, develop knowledge and personal potential, and participate in society (OECD, 2009:14).

Duke & Carlisle, 2011 remind us that reading comprehension involves understanding the language and knowing the content, structure, and purpose of the text. A student's reading comprehension considers the person who is reading, in addition to his or her purpose for reading, previous knowledge, and reading strategies and abilities. Reading comprehension is also related to the context in which reading takes place.

The Simple Reading Model (Gough & Tummer, 1986; Hoover & Gough, 1990) establishes that for there to be an accurate understanding of a text, the language and the decoding of the text must be connected:

Simple View of Reading

D × L
Decoding
Word recognition.
The ability to instantly recognize a word.

Language
Language comprehension.
The ability to undestand language structure, etc.

=

RC
Reading Comprehension.
The ability to make meaning of connected text.

Simple Reading Model (Gough & Tunmer, 1986; Hoover & Gough 1990)

This model, which starts the deepening of reading comprehension, establishes only two elements in the comprehensive reading process and gives rise to a deeper reading comprehension process. The detail of each of these elements, decoding, and language, was elaborated in Scarborough's "Rope Model" (2001), which says that for there to be efficient reading, it is critical that the decoding of the message and the comprehension of the language go hand-in-hand.

Considering research and the two models mentioned above, student comprehension of the text is established as a multifactorial process.

Reading Comprehension Skills in Spanish

In 2000, the OECD launched PISA (Program for International Student Assessment) in member and non-member nations, intending to evaluate educational systems by measuring the academic achievement in mathematics, science, and reading of 15-year-old students.
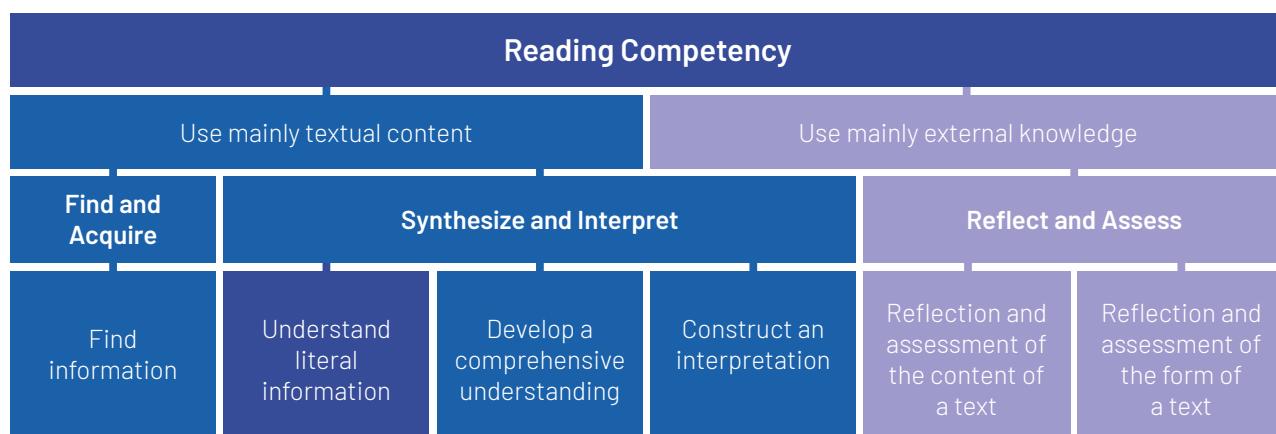
In reading, the PISA assessment measures students' reading comprehension skills and abilities in Spanish, based on three "macro-skills": locating or obtaining information, integrating and interpreting, and reflecting and evaluating. These skills relate to how students read and the levels of questions they are asked to assess their reading comprehension.

OECD (2017) defines each of these skills as follows:

- **Locating and obtaining information:** Consists of going to the information provided and selecting specific data and information in the text. Literal questions are used to assess comprehension at this level.

- I**ntegrating and interpreting:** Consists of giving meaning to the text that goes beyond the literal meaning through the process of interpreting something that has not been explicitly mentioned in the text. When interpreting, a reader identifies the ideas or implications that underlie all or part of the text. Questions at this level require students to make connections among and between information in different parts of the text.

- **Reflecting and evaluating:** Consists of students resorting to background knowledge, information, ideas, or attitudes external to the text to relate the information in the text with their own conceptual and experiential frames of reference. Questions at this level require students to connect the information in the text and what they already know.

Reading Competency					
Use mainly textual content				Use mainly external knowledge	
Find and Acquire	Synthesize and Interpret			Reflect and Assess	
Find information	Understand literal information	Develop a comprehensive understanding	Construct an interpretation	Reflection and assessment of the content of a text	Reflection and assessment of the form of a text

Processes focused on the development of the reading literacy test for PISA and PISA-D, ODCE (2017)

The Beereaders' platform follows the same precepts when assessing and supporting students' reading comprehension. The platform includes questions associated with the texts and reading selections that assess understanding at these three micro-skill levels. Each macro-ability of reading comprehension is related to a list of specific performance indicators that measure the recognition and identification of elements related to the student's reading level. For example, suppose a student locates explicit information in the text. In that case, she must not only find general information but must recognize characters, places, actions, and other elements that underlie the macro-ability. Here is an example from one of the short texts.

Short Text

At Beereaders, we work with a short text called "challenge", which is the text or paragraph that children will be reading on the platform. This can be a book or a fragment (chapter) of it, or an article in a challenge, or a text in the initial diagnosis. Each challenge contains four questions that include their alternatives and answers, which verify macro reading skills development.

Here is an example from one of the short texts in the Beereaders' platform.

"Comienza tu día con una sonrisa y verás lo divertido que es ir por ahí desentonando con todo el mundo." (Start your day with a smile and you will see how much fun it is to go around being out of tune with everyone.)

Examples of Questions

- **Locating or obtaining information:** ¿Cómo debes comenzar tu día? (How should you start your day?) Literal questions are answered by extracting information explicitly present in the text.

- **Integrating and Interpreting What They Read:** ¿Cómo es todo el mundo? (How is everyone else feeling?)

Questions related to inferring physical or psychological characteristics, which the reader must interpret from the text.

- **Reflecting on and evaluating What They Read:** ¿Estás de acuerdo con la opinión del texto? (Do you agree with the opinion of the text?) Questions related to evaluating information in the text to state an opinion about it.

Books and long text

Some factors associated with a good PISA reading comprehension score are:

- Frequency of reading,

- The variety of materials read,

- The diversity of purposes for reading, and

- Time spent reading

Student results show that the more frequently students read various materials for multiple purposes and a more extended period, the better their PISA performance (PISA 2000).

Beereaders has a collection available for teachers and students that promotes a playful and recreational approach to reading.

The criteria and objectives for the selection of library texts are as follows:

- To ensure the age and reading level are covered.

- To present a diversity of themes, genres, and literary subgenres: novels, short stories, and poetry.

- To offer, from the collection, a sample of universal classic literature, so that children can encourage contact with the most representative authors and texts of literature.

Encourage cultural and linguistic diversity through texts from Hispanic American cultures: myths, legends, poetry, stories; in this way, readers can reflect on the language and its different variants.

Similarly, Beereaders promotes the development of good reading habits that allow students to develop a love of reading and a motivation to read more.

Students who are more motivated in experiences and reading activities are more efficient readers (Clark & Rumbold, 2006; OECD, 2010). The Beereaders' platform creates an engaging game-like reading and learning environment that motivates students to develop reading comprehension strategies, get feedback on their progress, and experience success as they read. This type of supportive and engaging environment will encourage students to read more. Reading frequently and for their pleasure will make students recognize the value of reading and reinforce their reading habits (Sanacore, 2002).

Textual Typologies

Text and discourse are commonly used as synonyms to refer to a statement or speech that has a communicative purpose, understood as expressing ideas, reasons, feelings, thoughts, or desires. However, Van Dijk (1998) makes a distinction between the terms. He indicates that 'text' is still an abstract aspect of the communication intended, while 'discourse' is coherent and cohesive.

Despite the above, the previous concepts allow us to state that communicative purposes' diversity gives origin to different texts. Therefore, text typologies are a classification or categorization of the different types of text. The characteristics and/or properties are then theoretically conceived to be considered in a text typology. To clarify this definition, Corbacho (2006) states the existence of different purposes and modalities in which a person can classify a text. Thus, text typologies are nothing more than categorizing texts, which are as diverse as the different types of existing texts.

In ancient Greece, Aristotle began to divide texts according to their classification and how they are understood. In this regard, Amaya (2010) points out that the Aristotelian perspective gave greater importance to oral discourse addressed to an audience associated with rhetoric. However, text typologies have not ceased to be theorized due to the different conceptions, perspectives, and forms of understanding.

Furthermore, text production in different genres and typologies has enriched each culture and country's literature. Still, it has also created a diversity of discourses that give voice to human beings' different thoughts. In the educational scenario, students need to have various texts that allow them to learn about other cultures, analyze historical contexts, formulate an opinion, take a stance on a situation, generate spaces for reflection, and develop comprehension at different levels.

This provides space for metacognitive processes and the development of skills and competencies in students and contributes to understanding and valuing others in their diversity, relating this to intra- and interpersonal relationships. But it also compiles the sociocultural elements of a country or region, as they reflect the forms of speech historically used in that linguistic community (Alexopoulou, 2010).

The study of text typologies formally begins in school education. One of the first classifications of texts refers to their

literary or non-literary nature. A literary text is a text developed from fiction or imagination, using aesthetic and literary language (for example, a dramatic work, a poem, or a novel). A non-literary text is understood as one that lacks language and aesthetic function, based mainly on exposition and informative character (for example, a news item, a report, or an instruction manual) (UCTICEE Project, 2020).

The linguist Egon Werlich proposed a classification of the textual typologies according to the text's modality or structure, which has become a universal model currently in use. According to his proposal, there are five basic types of texts, which become more complex as they are combined in the exact text and are related to the human being's cognitive structure. These texts are known as narrative, descriptive, argumentative, expository, and instructional, and are presented below, considering the explanation given by Werlich (1979):

- **Narrative:** text narrates or recounts events, whether actual or fictitious. It relates to the narrator's perception of events and how the situation or story changes over time. A school story and a short story are examples of narrations.

- **Descriptive:** text that describes people, places, events, or objects. Although it is also linked to the writer's perception, the changes occur at a spatial level. The statement of a witness to a crime or a tourist brochure are examples of descriptive texts.

- **Expository:** type of text associated with the writer's capacity to analyze and synthesize since it is based on his/her ideas or conceptual representations. The exposition is based on the definition or explanation of concepts. An essay is an example of an expository text.

- **Argumentative:** a text that is developed through processes of argumentation, which links concepts and ideas. This text contains opinions, doubts or questions, and even counter-arguments to a previous debate or problem. A literary commentary or critique is a type of argumentative text because it presents the author's evaluation of the work and a well-founded opinion.

- **Instructional:** this type of text has an order or structure that intends to provoke an attitude, behavior, or learning in the reader. The instruction is based on a piece of advice, suggestion, warning, or obligation. As an example, laws and the instruction manual of a device are examples of instructional texts.

Concerning this typology, Loureda (2003) highlights its possibility of manifesting itself from an objective or subjective perspective. In this sense, the narrative can be a veridical report of something that happened or something imagined with a more subjective character. Similarly, the statement can be academic and scientific, with more technical and objective content and a subjective statement about what you believe, feel, or think about something. Thus, for these five types of text, there are both objective and subjective forms of representation.

Another type of text typology classification refers to the text's purpose or function, a model proposed by Jakobson (1985). Previously, texts had an expressive, appellative, or representative function, which later changed to emotive, conative, and referential functions (Loureda, 2003). However, the texts themselves may present the different functions' characteristics, making it essential to recognize the predominant one.

A text can be prescriptive if its purpose is to guide the behavior of the receiver/reader; persuasive if it is intended to convince the listener of something, making use of argumentation. A more aesthetic or poetic text is related to literature, literary figures, and informative text (Amaya, 2010; Loureda, 2003). At the same time, text typologies are present in oral communication and written and multimodal communication.

Reading a text is not only decoding graphemes. Still, it is conceived as an ability that develops in human beings and allows the construction of meaning, to the extent that they have an active attitude towards the text and can make a connection with their previous knowledge, which leads to the interpretation, comprehension, and

organization of the text (Alexopoulou, 2010). In this sense, the reading process emerges as a system of steps or levels that a person follows from the beginning of reading until the reader comprehends what he/she reads.

Rodríguez and Peñate (2008) explain that continuous reading is done continuously, following the text line from its beginning to its end, as in reading a story in children. On the other hand, discontinuous reading points to selecting a specific element or piece of information searched for in a text for its reading, for example, searching for a definition in a dictionary (Rodríguez and Peñate, 2008).

It is common for continuous reading to be practiced in the school context, as it is more familiar to students and even valued by those who enjoy reading. However, it is crucial to develop the skill of discontinuous reading, as this allows the search for specific information in various types of texts, such as tables, graphs, or maps. At the same time, it is possible to carry out a mixed reading, where students begin with a discontinuous approach to the text and, once they have selected what they wish to read in-depth, start a continuous reading.

The Beereaders Leveling System

Taking into account the scientific evidence of the reading process as it relates to text levels which emphasizes the importance of assigning texts according to text characteristics and complexity (Fitzgerald, Elmore, Elfrieda et al, 2016) as well as psychology studies that speak about reading and its development (Fitzgerald & Shanahan, 2000), Beereaders created a proprietary system of leveling Spanish text. Our evaluation matrix is aligned to PISA and OECD standards, enhancing the recognition of reading competence's macro skills: obtaining and locating information, integrating and interpreting, and relating and evaluating.

The total of 72 levels is distributed by academic grade, grades 1-12, with six levels of difficulty for each academic grade, according to the following scale:

- Low
- Medium-low
- Medium
- Medium-high
- High
- Superior

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
1	7	13	19	25	31	37	43	49	55	61	67
2	8	14	20	26	32	38	44	50	56	62	68
3	9	15	21	27	33	39	45	51	57	63	69
4	10	16	22	28	34	40	46	52	58	64	70
5	11	17	23	29	35	41	47	53	59	65	71
6	12	18	24	30	36	42	48	54	60	66	72

Correlation of Beereaders with Lexile & Fountas and Pinnell

Beereaders has taken the Spanish text leveling frameworks of El Sistema Lexile® Para Leer/Spanish Lexile® (Metametrix) and the Fountas and Pinnell Sistema de evaluacion de la lectura (K-2) into account when developing our proprietary Spanish text leveling system. However, Beereaders has made refinements and adaptations of these, adjusting the Beereaders' content and leveling criteria according to our analysis of reading levels of the texts used in schools throughout Mexico, Peru,

Colombia, and Chile in grades K-12.

Here are our preliminary correlations of the Beereaders' Leveling System to the other widely used leveling systems in the U.S.

Lexile

Level 1 to 36: 420-820 L
Level 37 to 48: 740-1000 L
Level 48 to 60: 925-1185 L
Level 60 to 72: 1050-1800 o + L

Fountas and Pinnell SEL

1 E	7 H	13 K	19 N	25 Q	31 T	37 W	43 X	49 Y	55 Y	61 Z	67 Z
2 E	8 H	14 K	20 N	26 Q	32 T	38 W	44 X	50 Y	56 Y	62 Z	68 Z
3 F	9 I	15 L	21 O	27 R	33 U	39 W	45 X	51 Y	57 Y	63 Z	69 Z
4 F	10 I	16 L	22 O	28 R	34 U	40 X	46 Y	52 Z	58 Z	64 Z+	70 Z+
5 G	11 J	17 M	23 P	29 S	35 V	41 X	47 Y	53 Z	59 Z	65 Z+	71 Z+
6 G	12 J	18 M	24 P	30 S	36 V	42 X	48 Y	54 Z	60 Z	66 Z+	72 Z+

Fountas and Pinnell SEL

The reading level assignment for each student is made based on an initial diagnosis made by Beereaders Placement Test, which each student takes when entering the platform for the first time. This diagnosis is comprised of the following:

Grades 1, 2, and 3:
Three controlled texts, with a total of 12 questions.

Grades 4, 5, and 6:
Four controlled texts, with a total of 16 questions.

Grades 7 and 8:
Five controlled texts, with a total of 20 questions.

Grades 9, 10, 11, and 12:
Six controlled texts, with a total of 24 questions.

For the initial diagnosis, the "controlled text" can be a book or excerpt from it or a short narrative or informational text.

The diagnosis's objective is to place the student in the Beereaders' Leveling System, and the Placement Test is given to each student as one of the steps in the "onboarding" process. Two additional Placement Tests are available to teachers on the platform so that, voluntarily, they can use them with their students during the year in order to measure reading level growth.

The Placement Test is assigned according to each student's academic grade and measures performance on associated questions for each reading selection. Each performance has a score, with which the result is calculated, and then the level at which the student is reading, according to the Beereaders Level System, is determined. Each student reads content according to their level of reading proficiency.

It is crucial to diagnose students' reading competence at different levels and stages of reading development, from early childhood and even higher. This is due to the variability of cognitive processes associated with reading and the skills required in the reading process to go from reading graphemes to the actual comprehension of words, meanings, and contexts.

Furthermore, Gordillo and Flórez (2009) explain three levels of reading comprehension:

- **Literal:** identifying details, knowing the meaning of words, locating text elements, reorganizing information, classifying objects, places, people; sketching the text, summarizing the ideas it presents. In other words, it is the reconstruction and recognition of a text, a straightforward initial mechanical task.

- **Inferential:** deduction of the ideas, meanings, or teachings of the text, secondary ideas, and traits or characteristics of the characters that are not mentioned in the text. This level includes logical deductions and assumptions, reaching an understanding of what is implicit in the text.

- **Critical:** allows the reader to make a judgment about the values, facts, fantasy, and reality present in the text, as well as to associate it to other contexts. The reader can evaluate the text and argue about it with knowledge and logical explanations.

Knowing the levels of reading comprehension is a beginning for reading diagnostics. Reading ability is sequential, and it is required that the student goes beyond each level until reaching comprehension in its maximum expression, which requires higher cognitive thought processes. Therefore, the teacher must check the reading level of his/her students

through different diagnostics, intending to develop learning experiences that allow him/her to advance in the development of reading competence.

More recently, Stalh, Flanigan, and McKenna (2020) propose that reading should follow a cognitive model in which comprehension occurs at different levels that interact with each other. Automatic word recognition, language comprehension, and strategic knowledge are involved. In other words, a student can have a literal, inferential, and critical reading from the beginning of his or her reading process, but it occurs at different levels. The diagnostic and assessment of reading then takes on a fundamental role to help the student in a contextualized and personalized way to develop the other skills associated with reading comprehension by first identifying those he/she has difficulty or has not yet fully mastered. In Beereaders, we perform an accurate placement, according to correct and incorrect answers, and a pedagogical placement that takes the student back to 12 levels to corroborate the actual acquisition of performance and basic reading skills.

Rules of
Our Model

The Teacher

Parents

Beereaders
The Student
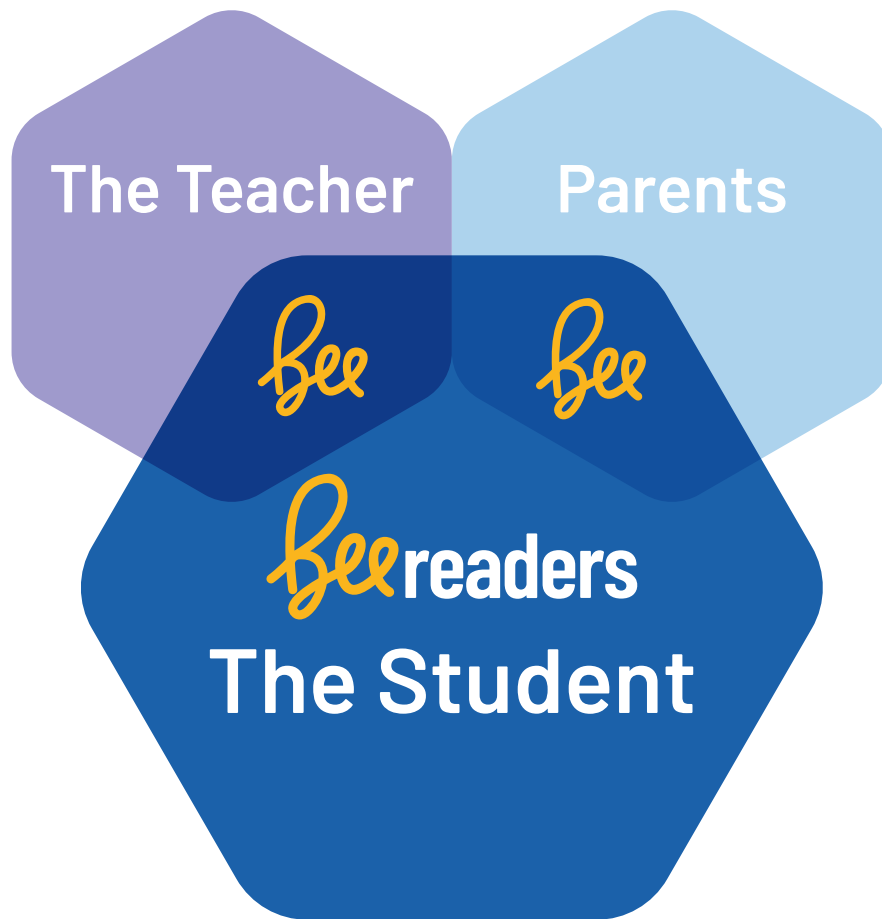
Within the Beereaders program, there are platforms and specific features and supports, and tools for each of the three users: Students, Teachers, and Families.

The student, through the use of our platform, is the protagonist.

The teacher analyzes reports provided within the platform and motivates his students by assigning books and challenges catered to each student's needs.

Parents motivate, accompany the process and collaborate with reading practices at home.

Several studies have shown that students' reading motivation is directly related to their reading skills (McGeown, Norgate, and Warhurst, 2012). At the same time, motivation is influenced by the teachers' attitude towards reading and the didactic and feedback strategies. Still, there is also a family factor, where reading habits and reading stimulation in the family environment play a significant role in students' motivation.

The results in standardized and diagnostic evaluations regarding the reading process at different education levels account for two substantial reading competence elements: the family environment and the academic environment (Agencia Calidad de la Educación, 2016). The family is the first space of socialization and learning in which a child develops. It is in the family context where cultural and social values are taught and where most of the time is spent before schooling.

According to Pérez and Gómez (2011), the family directly influences the acquisition of reading habits in children and young people. Thus, the family environment becomes the ideal place where the taste for reading is stimulated and motivated. Various studies indicate that families that give little or no time to the task, or where there are situations of illiteracy in parents and even in socioeconomic contexts of vulnerability, there is a tendency for children not to develop a taste and interest in reading due to lack of motivation, stimulation, and resources (Rosero and Mieles, 2015).

On the other hand, the school environment, specifically teachers' didactic and evaluative strategies, is also a fundamental part of the reading process and the student's reading motivation. The teacher, especially in the initial stages, is responsible for promoting reading and generating learning instances that allow students to acquire reading competence and develop the associated skills at different levels (Vargas, 2001). Hence, the importance of motivation and the teacher's disciplinary knowledge to use other models allow him/her to contextualize teaching to his/her students' needs. It also requires a great deal of creativity and the teacher's availability of disciplinary resources available.

One of the latest proposals by experts is to relate teachers' reading competence to their ability to teach reading. In other words, teachers who read and have developed high levels of reading comprehension are those who have more outstanding competencies to teach their students to read (Muñoz, Munita, Valenzuela, & Riquelme, 2018). Therefore, initial teacher training is essential for preparing future teachers who have reading mediators' competencies, consistent with the reading commitment, especially in early childhood and primary education, where the foundations for the future reader are laid (Elche & Yubero, 2019).

In this sense, it is crucial to generate collaboration and cooperation between family and school for reading motivation and associated skills development. Work between the family and the school should be based not only on motivational aspects but also on providing the student with timely and meaningful feedback in his or her reading process.

Feedback in the teaching and learning

processes positively influences skills development, motivating self-evaluation, and learning by mistake in a guided way. In this regard, Arroyo, Solórzano, Morales, Canales, and Carpio (2013) state that feedback in reading promotes a reading adjustment in the child, based on questions of different complexity to approach the text from a simple to a more complex interaction. This agrees with the foundations of the evaluation and feedback of learning, aiming for the students to achieve and master their educational level competencies (Wiliam, 2011).

Therefore, reading feedback should be understood as a teacher's pedagogical intervention, from a formative assessment and considering the student's learning objective or reading achievement. The teacher evaluates the state in which the student is, what is missing to reach the goal and how he/she can achieve it according to his/her abilities and capacities (Arroyo, et al., 2013). However, this feedback should motivate their learning, and, at the same time, the family should work together with the teacher to support reading comprehension skills.

Reports for Families and Educators

We focus our work on the student and provide teachers and parents with the possibility of supporting the process through statistical analysis of general and specific reports that monitor students' teaching-learning process. These reports are customizable by student, class, school, or district.

Our reports focus on:

- General reading results
- Detail by reading comprehension ability
- Evolution
- Complementary reading plan Reading
- Speed
- Habits and Preferences
- The best of the month

There are also support resources for teachers and parents within the system, such as user manuals, professional development podcasts, videos, and instructional resources with teaching activities to support oral and written communication.

Beereaders facilitates communication with everyone involved in supporting student reading activities and success: school and parents.

Motivation, Engagement, and Reading Success

Many studies show how important motivation and engagement are to reading success. A 2010 PISA report found that interest in reading predicted students' reading comprehension success. Across all 64 counties participating in the Program for International Student Assessment, students who enjoyed reading the most performed significantly better than students who enjoyed reading the least. Perhaps of most concern was the finding that 37% of students reported that they do not read for enjoyment at all.

Reading motivation is presented as the stimulation received by the child from the early education age, which allows him/her to generate an interest in reading, enjoying and valuing reading spaces and reading itself. Reading motivation is related to reading performance and even to learning outcomes and indicators of personal and social achievement (Agencia Calidad de la Educación, 2016).

Our initial studies show that Beereaders improves reading comprehension by 11% after just 8 weeks of use, with just 45 minutes a week. 85% of students using Beereaders said that reading is more engaging and motivating, inspiring them to read more.

Use of Technology in Reading / Gamification

Since the beginning of the 20th century, new technologies have become relevant in the reading process, making it more dynamic and changing reading methods. According to Barrera (2002), technological advances mean a change in the search for and construction of knowledge through the Internet and various electronic devices that modify traditional paper reading and take it to the screens. Therefore, the use of diverse competencies in reading has also been changed.

The use of technologies is currently part of people's daily lives, being present in academic, work, and personal activities. Thus, Gutiérrez (2009) states that written texts or reading on paper have become an old practice for the new generations, leading to digital reading and the preference for images and other multimodal texts rather than words.

The debate about the advantages or disadvantages of using technology and that it makes reading possible has been going on for years. However, rather than focusing on one modality over another, the attention should be on how the different types of texts complement each other and the reading competence itself (Barrera, 2002). A person who develops reading competence will be able to read at different levels of comprehension whether or not he/she makes use of technology.

In the educational environment, technology should not be seen as an obstacle to developing students' reading skills. Instead, it is a tool that allows the construction of meaningful learning. It motivates students to read different texts, which can even change reading into a more playful experience because of games. The challenge is for curricula to incorporate technology as a teaching and learning strategy, focusing on creating spaces and experiences that allow students' reading skills. Cordón (2016) explains that technology is another way of reading and accessing information, which has also generated new forms, levels, and types of texts, which have been adapted and reinvented to different cultures and countries. All the mentioned above validates and even promotes the use of technology as a tool for authentic learning.

Neuroscience establishes that learning through play delivers a more meaningful, interactive, and rewarding experience for students. Laski and Siegler (2014) add that it is essential for teachers to use game-based learning platforms to improve results in the teaching-learning process. In addition to its motivational features, game-based

learning gives students the freedom to fail without fear (Lee and Hamer, 2011). Reading in an engaging, game-based environment that provides feedback, support, and rewards for students positively impacts their self-perception. Wigfield & Asher (1984) show that self-perception of reading progress affects reading motivation. If students are encouraged and engaged with reading, their interest in reading will be strengthened, and their self-confidence levels will increase.

The Beereaders' student platform incorporates the concept of gamification within the quizzes that accompany each reading selection, reflected by clues that the system provides when students need support.

Besides, in our interactive platform, there are wildcards that collaborate with the students' responses and digital rewards (points, coins, and badges). Students are awarded throughout their reading process, motivating them to read and promote reading habits.

# Good Readers and Diversity of Texts / Categories

The Ministry of Education in Chile (MINEDUC) defines the literate environment as an environment that offers students the possibility of constantly and permanently interacting with texts of various types.

Within the Beereaders' platform, students will be able to read complete books and short texts called "Challenges," all of which include integrated quizzes. Our platform works with continuous, discontinuous, and mixed texts in a range of genres, both literary and non-literary.

As ASCD author Mike Anderson says (2016), the choice is the key to student motivation and achievement. "Through choosing what they like and want to read, students connect with their strengths and interests and have more autonomy, power, and control over their work, which boosts their intrinsic motivation." It is essential to consider students' reading tastes and interests since these will determine their level of engagement in what they read, especially on their own.

At Beereaders, we foster motivation and a love of reading by encouraging students to select their favorite reading categories from among the 31 categories the system provides. These lines of thematic interest frame the designation of challenges.
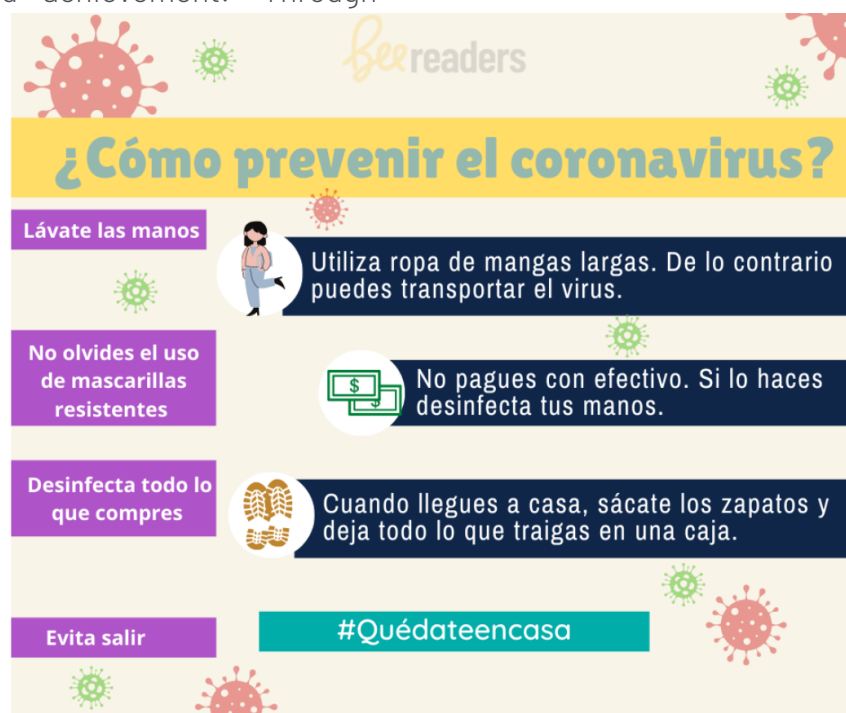
The Importance of Using Reading Comprehension Strategies / Reading Support Tools

A good reader is also one who has developed reading strategies that help them build meaning (Harvey & Goudvis, 2000). Duke & Pearson (2002) emphasize that using methods for understanding such as visualizing and summarizing make the reading process more effective. Several reviews of research, including the report from the National Reading Panel (https://www.nichd.nih.gov/publications/pubs/nrp/findings), conclude that teaching a relatively small set of comprehension strategies enhances comprehension, including the following:

- Strategies that support comprehension monitoring while reading.

- Use of graphic organizers.

- Main idea and summarizing.

- Question generation by students.

The different reading comprehension strategies must be explicitly taught to advance texts' understanding (Duke, Pearson, Strachan, & Billman, 2011).

For use by teachers for modeling and by students as they read, Beereaders provides an array of unique digital tools that promote the development of active reading comprehension strategies by the student. The digital features and tools within the student platform that encourage the use of reading comprehension strategies and personalize the reading experience for each student include:

- Reading Habits & Interests Survey

- Highlighting Tool

- Sticky notes

- Thematic music

- Voice-over / Narrator

- Integrated Dictionary

- *Sabias que...?* (Linguistic Variations)

Sample image of reading support tools

Cuando el huaso llegó, le dijo:

Salir
Log out

✏ Marcadores:

Selecciona la categoría en la que deseas guardar este extracto:

✏ Personajes

✏ Acciones

✏ Vocabulario

✏ Lugares

Guardar

-S... o ya estoy muy cansado...
¿Por qué no se pone u e en mi lugar mientras voy a buscar gente que la sujete? Unánime aceptó, se bajó del caballo y reemplazó a Pedro afirmando la piedra. Entonces Pedro Urdemales montó el caballo, diciéndole que volvería con otros hombres... Cuando yo era joven me atreví a discutir con las personas mayores, y conté esta historia tal como me la habían contado.

An example image of linguistic variables

Desafíos
Challenges

Tienda
Store

Salir
Log out

En cualquier camino que suba de valle a cordillera podrá verse alguna enorme piedra al *coche* del cerro, casi colgando, a punto de carnosencima o cerrarnos el camino. iempre que paso junto a una de esas piedras giga... ...oria, contada por personas tan...

Div... ...a a caballo y entonces se pus... ...a en la falda de un cerro. Cua...

¿Sabías que la palabra *"coche"* tiene diferente significado en 4 países?

En Guatemala, la palabra "coche" se usa para referirse al "cerdo".

Vocabulary Acquisition / Integrated Dictionary & Linguistic Variables

Children with a more extensive vocabulary become better readers and faster (Neuman & Dwyer, 2009; Hirsch, 2003). Our brain connects the words and builds a network of knowledge, so if we consider the dimensions of the vocabulary with respect to amplitude, that is, the number of words the student knows, we can see that the more words, the greater the connections and, therefore, a greater network of knowledge and in turn, a solid network of knowledge generates a better understanding. Children who know more words will understand more when they read and learn more (Dickinson, & Porche, 2011). A vast repertoire of words can help a person in reading and school performance in general (Beck, McKeown & Kucan, 2002; 2008).

Our authentic content in Spanish enhances Latin American multiculturalism. Beereaders integrates a dictionary and linguistic variables that allow the student to know the meaning of unknown words and learn the different forms that the same word acquires according to the speaker's place.

Bibliography

Agencia de Calidad de la Educación. (2016). Factors that influence reading motivation and its relationship with learning achievement and indicators of personal and social development. Santiago: Ministerio de Educación de Chile.

Alexopoulou, A. (2010). Textual typology and reading comprehension. Revista Nebrija de Lingüística Aplicada, 9, 1-7.

Alma D. Rodríguez (2014) Culturally Relevant Books: Culturally Responsive Teaching in Bilingual Classrooms, NABE Journal of Research and Practice, 5:1, 173-196, DOI: 10.1080/26390043.2014.12067778

Amaya, M. (2010). Textual typologies: from Aristotle to multiple classification. Literature and linguistics, 22, 77-91.

Aracelis Nieves (2015) The Impact of the Spanish for Fluent Speakers Curriculum on the Attitudes, Motivation, Self-esteem, Language Skills and Academic Future of Latino Students, NABE Journal of Research and Practice, 6:1, 158-192, DOI: 10.1080/26390043.2015.12067787

Arroyo, R., Solórzano, A., Morales, G., Canales, C. y Carpio, C. (2013). Functional effects of feedback in reading. Teaching and Research in Psychology18(2), 293-305.

Barrera, L. (2002). Reading and new technologies: a constructive and dynamic relationship. Beck, I. L., McKeown, M. G., & Kucan, L. (2008). Solving problems in the teaching of literacy.Creating robust vocabulary: Frequently asked questions and extended examples. Guilford Press.

Casner-Lotto, Jill; Barrington, Linda (2006) Are they really ready to work?: Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce.

Corbacho, A. (2006). Texts, text types and specialized texts. Revista de Filología, 24, 77-90.

Cordón, J. (2016). Reading in the digital environment: new materialities and discursive practices.. Chilean Journal of Literature, 94, 15-38.

Duke, NK, Pearson, PD, Strachan SL & Bilman, AK (2011) Essential elements of fostering and teaching reading comprehension. In What Research Has to Say about Reading Instruction (4th edition), 51-93. International Reading Association.

Durkin, D. (1993). Teaching them to read (6th Ed.). Boston: Allyn & Bacon.

Elche, M. y Yubero, S. (2019). Teachers' complex relationship with reading: the reading behavior of early childhood and elementary school teachers in training. Bordón. Bordón, 71(1), 31-45.

García, O., & Kleifgen, J. (2010). Educating emergent bilinguals: Policies, programs, and practices for English language learners. New York, NY: Teachers College Press.

Gough, P. & Tunmer, W. (1986). Decoding, reading, and reading disability. Remedial and Special Education, 7, 6–10.

Gordillo, A. y Flórez, M. (2009). The levels of reading comprehension: towards an investigative and reflexive enunciation to improve reading comprehension in university students. Actualidades Pedagógicas Journal, 33, 95-107.

Gregory, E. (1996). Making sense of a new world: Learning to read in a second language. London, UK: Paul Chapman.

Gutiérrez, E. (2009). Reading digital: reading in the environment of new information and communication technologies. Sign and Thought XXVIII (54), 144-163.

Harvey, S. & Goudvis, A. (2000). Strategies That Work: Teaching Comprehension to Enhance Understanding. Stenhouse Publishers. Canada.

Hirsch, E.D. (2003). Reading comprehension requires knowledge – of words and the world: Scientific insights into the fourth-grade slump and the nation's stagnant comprehension scores. American Educator, Spring, 2003. American Federation of Teachers.

Hoover, WA, & Gough, PB (1990). The simple view of reading. Reading and writing, 2 (2):127-160.

Jokobson, R. (1985). The language frame. México: Fondo de Cultura Económica.

Kerubo, O. (2014). Correlation between reading comprehension practices and academic performance: A case study of class three pupils in Westlands sub-county, Kenya (Published MA Thesis, University of Nairobi, Kenya).

Laski & Siegler. 2014.

Lee, J. J., and Hammer, J., 2011. Gamification in education: What, How, Why Bother? Academic Exchange Quarterly, 15(2):146-151.

Loureda, Ó. (2003). Introduction to textual typology. Madrid: Arco Libros.

Mastropieri, M.A., Scruggs, T.E., & Graetz, J.E. (2003). Reading comprehension instruction for secondary students: Challenges for struggling students and teachers. Learning Disability Quarterly, 26(2), 103-116.

McDonald Connor, C., Piasta, S. B., Fishman, B., Glasney, S., Schatschneider, C., Crowe, E., & Morrison, F. J. (2009). Individualizing Student Instruction Precisely: Effects of Child Instruction Interactions on First Graders' Literacy Development. Child Development, 80(1):77-100. doi:10.1111/j.1467-8624.2008.01247.x

McGeown, S., Norgate, R. & Warhurst, A. (2012). Exploring intrinsic and extrinsic reading motivation among very good and very poor readers. Educational Research, 54 (3), 309-322.

Mitchell C. (2007) Workforce Readiness Initiative

Muñoz, C., Munita, F., Valenzuela, J. y Riquelme, E. (2018). Teachers who read and teach reading: the place of reading during training. Espacios, 39(40), 32-43.

National Reading Panel. (2000, April). Report of the National Reading Panel: Teaching children to read. Washington, DC: National Institute of Child Health and Human Development.

Neuman, S., & Dwyer, J. (2009). Missing in action: Vocabulary instr uction in pre-K . The Rea din g Teacher, 62(5), 384 –392. doi:10.1598/RT.62.5.2

OECD. (2009). PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy. Available at: https://www.oecd.org/pisa/pisaproducts/PISA%202012%20framework%20e-book_final.pdf

Pérez, A. y Gómez, M. (2011). The influence of the family on the reading habit. I International Virtual Congress on Reading Education.

Proctor, CP, & Silverman, RD (2011). Confounds in assessing the associations between biliteracy and English language proficiency. Educational Researcher, 40 (2), 62–64.

Proyecto UCTICEE. (2020). Literary and non-literary texts. Canary Islands: Department of Education, Universities, Culture and Sports.

Reyes, I. (2006). Exploring connections between emergent biliteracy and bilingualism. Journal of Early Childhood Literacy, 6 (3), 267–292.

Rodríguez, A. y Peñate, M. (2008). Reading process research: trends and approaches in general and specific reading. Revista de Lenguas para Fines Específicos, 13-14, 241-284.

Rosero, A. y Mieles, M. (2015). Family and reading in early childhood: a strategy to enhance the communicative, affective, ethical and creative development of children. Itinerario Educativo, 66, 205-224.

Scarborough, HS (2001). Connecting early language and literacy to later reading (dis) abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), Handbook for research in early literacy: 97–110. New York, NY: Guilford Press. (Paul, R. and Norbury, C., 2012).

Schunk & Zimmerman.(2008). Motivation and self-regulated learning: Theory, research and applications.Lawrence Erlbaum.

Sharma, S.A., & Christ, T. (2017). Five steps toward successful culturally relevant text selection and integration. The Reading Teacher, 71(3), 295–307. https://doi.org/10.1002/trtr.1623

Solé, M. (2007). Didactic considerations for the application of reading strategies. Electronic Magazine "Investigative News in Education", 7 (3), p. 1-15.

Solé, I. (2012). Reading and learning competence. Ibero-American Journal of Education (OEI), 2012, 59, 43-61.

Soto Huerta, M. (2012). Guiding biliteracy development: Appropriating cross-linguistic and conceptual knowledge to sustain second-language reading comprehension. Bilingual Research Journal, 35 (2), 179–196.

Stahl, K., Flanigan, K. & McKenna, M. (2020). Assessment for reading instruction. EEUU: Guilford Publications.

Van Dijk, T. A. (1998). Text and context. Semántica pragmática del discurso. Madrid: Cátedra.

Vargas, M. (2001). The teacher: promoter of reading. Educere, 5(13), 24.

Werlich, E. (1979). Typologie der Texte. Heidelberg: Quelle & Meyer.
Wigfield, A & Asher, S. (1984). Social and motivational influences on reading. In Handbook of reading research. Pearson.

Wiliam, D. (2011). Embedded formative assessment. Indiana: Solution Tree Press.

From Research to Innovative Practice

Beereaders