

Pre-service English teachers' reading comprehension beliefs, reading frequency, gender, and academic progress

Creencias, frecuencia lectora, género y progreso académico en futuros docentes de inglés

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Research on reading beliefs has generally focused on belief types, such as implicit theories (ITs), rather than on clusters of belief types, or IT schemas. This study describes the ITs and IT schemas of Mexican undergraduate pre-service teachers of English as a foreign language from dimensional and typological perspectives. It also examines associations among ITs, schemas, reading frequency and genre variety, gender, and year of study. A quantitative, non-experimental, cross-sectional, descriptive-correlational design was used, drawing on the locally developed Scale of Implicit Theories of Reading Comprehension. Five ITs were identified. The Receptive Polyphonic IT was the most prevalent, whereas the Rhetorical Sourcing IT was the least common. Participant variables were not associated with these ITs, except for the Critical IT, which tended to increase with academic progress. The schema-based approach showed that most participants were multischematic, meaning that they held more than one IT. Participants who reported reading more frequently and across more genres tended to be multischematic and to hold more epistemic-interactive ITs, whereas less frequent readers tended to be monoschematic or aschematic. These findings suggest that promoting frequent reading across diverse genres may support greater schematic diversity and more systematic multiple-document comprehension practices in university-level academic reading instruction.

Keywords:

academic progress, beliefs, gender, reading comprehension, reading frequency

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La investigación sobre creencias lectoras se ha centrado generalmente en tipos de creencias, como las teorías implícitas (TI), más que en agrupamientos de creencias, o esquemas de TI. Este estudio describe las TI y los esquemas de TI de futuros docentes mexicanos de inglés como lengua extranjera, inscritos en licenciatura, desde perspectivas dimensional y tipológica. Asimismo, examina asociaciones entre TI, esquemas, frecuencia lectora y variedad de géneros, género y año de estudios. Se utilizó un diseño cuantitativo, no experimental, transversal y descriptivo-correlacional, con base en la escala de teorías implícitas de la comprensión lectora, desarrollada para el contexto local. Se identificaron cinco TI. La TI receptiva polifónica fue la más prevalente, mientras que la TI retórica de contrastación de fuentes fue la menos frecuente. Las variables de los participantes no se asociaron con estas TI, excepto la TI crítica, que tendió a aumentar con la trayectoria académica. El enfoque basado en esquemas mostró que la mayoría de participantes fue multiesquemática. Quienes reportaron leer con mayor frecuencia y variedad de géneros tendieron a ser multiesquemáticos y a presentar TI más epistémico-interactivas, mientras que los lectores menos frecuentes fueron más monoesquemáticos o aesquemáticos. Esto sugiere fortalecer la comprensión multidocumental académica universitaria.

Palabras clave:
comprensión lectora, creencias, frecuencia lectora, género, progreso académico

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INTRODUCTION

Reading is a key educational activity with multifaceted psychological and social dimensions. From a psychological perspective, one major strand of research has examined reading in terms of comprehension, understood as “the process of simultaneously constructing and extracting meaning through interaction and engagement with print” (RAND Reading Study Group [RRSG], 2002, p. 11). Another important research tradition has explored people’s conceptions of reading. These conceptions are complex and have therefore been studied through a range of perspectives and constructs, including reading self-concept, reading self-efficacy, and reading motivation, all of which may be shaped by classroom practices (Guthrie & Klauda, 2014).

There is growing recognition in cognitive research that “there are important cultural, educational, and individual differences in the conceptualization of comprehension” (Snow, 2010, p. 414). In this paper, we understand these culturally situated conceptualizations as beliefs about reading comprehension. Following Snow (2010), we assume that such beliefs shape how readers engage with reading tasks across cultural contexts. Drawing on the framework of implicit theories (ITs) (Rodrigo, 1997; Rodrigo & Correa, 2001), we also assume that people develop their beliefs about comprehension through participation in culturally situated reading tasks and discourses, or proximal contexts of reference.

Researching these beliefs is important for understanding readers’ successes and struggles with reading, as these may stem from matches or mismatches between their culturally situated beliefs and the demands of reading tasks shaped by different cultural frameworks (Loyo & Hernández, 2022). Thus, descriptions of readers’ beliefs can directly inform the teaching and learning of reading comprehension (Makuc, 2020). Because beliefs are constructed through participation in specific, contextually situated practices, contextual variables may be associated with reading beliefs. For example, higher reading frequency and more advanced academic progress have been linked to more complex beliefs (Navarro & Mora-Aguirre, 2019; Van Le, 2024). Gender has also been associated with beliefs that are functional for academic reading, although findings vary: some studies report positive associations with female students, whereas others report such associations with male students (Errázuriz et al., 2020).

It is important to clarify that the ITs and schemas examined in this study are not specific to reading in English as a foreign language (EFL), even though the participants were pre-service EFL teachers. This clarification may be necessary because, given the literature on EFL teachers’ beliefs, some readers might expect the study to focus on participants’ views about how EFL reading should be taught or learned. Although that would be a valuable line of inquiry, we argue that examining participants’ beliefs about the nature of reading comprehension, rather than about its teaching or learning, is particularly relevant in contexts where universities and prior schooling have provided insufficient support for the development of pre-service teachers’ academic reading comprehension in both their first languages and English (Sandoval-Cruz et al., 2025). Moreover, L2 reading comprehension is known to share a common cognitive basis with L1 reading comprehension (Hee & Yamashita, 2022). Therefore, examining pre-service EFL teachers’ ITs of general reading comprehension can help identify ways to better support their ability to meet the demands of university-level literacy tasks and engage in critical literacy.

Studies on reading beliefs have often adopted what Ghaith (2021) calls a dimensional perspective, focusing on individual belief types, such as epistemic models of reading or ITs. However, to the best of our knowledge, no study has examined pre-service EFL teachers' beliefs about reading comprehension from what Ghaith (2021) calls a typological perspective. A typological perspective goes beyond assigning readers to a single IT; instead, it examines readers' combinations of ITs and their associations with other variables. Drawing on Ghaith (2021), we use the term "schemas" to refer to these combinations. In Perales-Escudero et al. (2023), we used the term "multischematic" to refer to readers who hold more than one IT, and "aschematic" to refer to readers who do not appear to hold any reading comprehension IT, as measured by a specific instrument. We propose that associations between reading beliefs and other variables may occur not only at the level of discrete ITs, but also at the level of schemas. Therefore, this paper tests the following null hypotheses:

H01: There is no association between participants' ITs of reading comprehension and gender, reading frequency and genre variety, or academic progress.

H02: There is no association between participants' IT schemas and gender, reading frequency and genre variety, or academic progress.

We posit that the variables examined in this study are related to the proximal contexts of reference in which ITs are synthesized and may therefore be associated with the ITs and schemas held by different groups. Students socialized into different gender identities may develop different beliefs about reading (Errázuriz et al., 2020). As students' progress through their programs, they may participate in increasingly complex reading and writing practices and discourses, which could shape their thinking about reading (Navarro & Mora-Aguirre, 2019). Similarly, students who read and write across a wider variety of genres more frequently may develop a broader repertoire of reading practices, ITs, and schemas.

However, evidence from the target context suggests that universities may not always enculturate students into multilingual academic reading practices in a sufficiently sensitive or systematic way (Sandoval-Cruz et al., 2025). Therefore, understanding these pre-service teachers' situated ITs and schemas can help diagnose needs and inform interventions aimed at redistributing semiotic capital. The next section turns to the theoretical underpinnings of this paper.

THEORETICAL FRAMEWORK

Implicit theories of reading comprehension

ITs are one of the constructs recently used to characterize teachers' and students' thinking about reading (Vilca-Rodríguez & Torres-Orihuela, 2023). Earlier research often drew on the related concept of epistemic models of reading and the three-fold distinction among transmission, translation, and transaction models (Schraw

& Bruning, 1996, 1999; Schraw, 2000). This construct has also continued to inform more recent studies (Moore & Narciso, 2011; Ghaith, 2021).

This paper adopts the construct of ITs as developed by Rodrigo et al. (1993) because of its strong social grounding. From this perspective, ITs are collections of socially based, non-explicit representations that focus on a particular dimension of reality; in other words, they are groups of beliefs. ITs are social because individuals synthesize them through meaningful participation in concrete sociocultural settings, or proximal contexts of reference (Rodrigo, 1997; Rodrigo & Correa, 2001). At the same time, ITs are also personal, insofar as they are activated in individuals' cognition even when people are not consciously aware of them. ITs help people orient themselves within the social situations that make up their lifeworlds (Rodrigo, 1997; Rodrigo & Correa, 2001).

Pre-service teachers, as learners of university-level academic reading, develop ITs about different dimensions of teaching and learning, including reading, to make sense of pedagogical problems. The development of reading related ITs occurs during pre-service teacher education because reading is a central component of this formative process. These ITs synthesize conceptions derived from socially shared ideas about reading, formal pedagogical knowledge, specific school cultures, the apprenticeship of observation, and personal beliefs (Jiménez-Llanos, 2009; Marrero, 2009; Rodríguez Zidán, 2000–2001).

More specifically, reading comprehension ITs have been defined as “representations that the reader has developed about reading and which he or she applies unconsciously to the task, hence, these representations mediate the relationship between reader and text” (Lordán et al., 2015, p. 39). According to Perales-Escudero et al. (2023),

for pre-service teachers, the programs where they are formally trained function as the proximal contexts of reference for the development of reading ITs. This is because they participate in specific discourses about reading and specific reading tasks that may vary across programs. This variation can lead to the emergence of shared ITs among groups of pre-service teachers, which might, in turn, be different from those ITs of pre-service teachers enrolled in different programs (pp. 61–62).

Several approaches have been used to study reading related ITs. Lordán et al. (2015) adopted a model that distinguishes between reproductive and epistemic ITs and developed a questionnaire to examine them. Makuc and her colleagues proposed a three-part taxonomy of ITs—linear, literary, and interactive—which they investigated through questionnaires (Makuc, 2008; Makuc & Larrañaga, 2015; Makuc, 2020). Hernández (2008) also developed a three-part classification of ITs—receptive, interpretive, and constructive—based on an analysis of interviews with undergraduate students. Vilca-Rodríguez and Torres-Orihuela (2023) used a four-part taxonomy and interviews.

Although the specific categories vary across studies, these taxonomies are broadly similar (Errázuriz et al., 2019). They generally distinguish between text-focused ITs, referred to as receptive, reproductive, or linear, and more reader- and/or knowledge-focused ITs, referred to as epistemic, transactional, literary, interactive, or constructive. The former conceptualize reading as a process of semantic reproduction. The latter show greater variation. They may involve an understanding of reading as strategic and critical (Hernández, 2008; Lordán et al., 2015; Perales-Escudero et al.,

2017), or a view of reading as a process through which readers derive lessons from texts and apply them to their own lives and identity construction (Hernández, 2008; Makuc & Larrañaga, 2015; Perales-Escudero et al., 2017). Literary and interpretive ITs conceptualize reading as a process of subjective interpretation by the reader (Hernández, 2008), often linked to literary enjoyment (Makuc & Larrañaga, 2015). Interactive and epistemic ITs also conceptualize reading as an intertextual process (Makuc & Larrañaga, 2015; Lordán et al., 2015).

The taxonomy of ITs developed by the lead author and his colleagues in previous publications (Perales-Escudero et al., 2021) differs from earlier taxonomies in that five distinct ITs have been consistently identified through the Scale of Implicit Theories of Reading Comprehension (ETICOLEC, as per its Spanish acronym; hereafter SITREC, as per its English acronym). The SITREC scale and its associated ITs emerged from a study of more than 600 in-service Mexican middle school teachers across subject areas. It is therefore a culturally sensitive scale, grounded in the localized beliefs of teachers from the Global South, which distinguishes it from other scales. It has also been used in other studies of teachers' reading beliefs (Cámara & Platas, 2021, 2024). A modified version of SITREC for pre-service EFL teachers was created and validated by Perales-Escudero et al. (2023). This modified version also yielded five ITs that closely resembled the original ones. Table 1 summarizes our taxonomy of ITs.

Table 1. IT Taxonomy (based on Perales-Escudero et al., 2023)

Implicit theory	Beliefs
Receptive polyphonic	Effective comprehension is guided by fidelity to the text. However, readers play an active role in maintaining fidelity to its semantic content by extracting main ideas, inferring implicit meanings, and identifying different voices and perspectives within the text
Interpretive	Effective comprehension is shaped by readers' subjectivity, including their goals and prior views, and involves imagination and emotion in the construction of personal interpretations
Applicative	Effective comprehension involves applying what is learned from texts to readers' lives. This includes analyzing characters' personal growth in narratives and relating textual content to prior knowledge
Rhetorical sourcing	Effective comprehension involves attending to source information, including the author, context of production, target audience, intertextual connections, and genre. It also involves adjusting reading strategies based on this information
Critical	Effective comprehension involves evaluating texts in terms of their accuracy, ideological biases, and relevance to readers' contexts

These ITs, as well as their combinations in individual readers, should be understood as varying in functionality across reading tasks. Therefore, the pedagogical implications derived from descriptions of readers' ITs should not rest on predetermined assumptions about the sophistication of particular ITs. Rather, they should be based on careful consideration of the interplay among ITs, combinations of ITs or schemas, and the types of reading tasks that are typical of specific educational contexts or studies. That said, the Rhetorical Sourcing IT seems particularly conducive to multiple-document comprehension (Britt et al., 2013), a type of comprehension that strongly predicts college success (Mahlow et al., 2020). This IT may therefore be highly functional for tertiary literacies and may even be synthesized through participation in tertiary literacy tasks.

Our empirical findings have led, over time, to refinements in the nomenclature and definition of these ITs, as well as to the addition of new items or beliefs to SITREC. For example, Perales-Escudero et al. (2021) identified a purely receptive theory among in-service middle school teachers, which corresponded to the transmissive, reproductive, or linear beliefs described in previous studies. These beliefs understand comprehension as fidelity to the text. However, subsequent studies with Mexican pre-service language teachers showed that, in this population, such beliefs consistently coalesced with beliefs focused on inferring implicit meanings and identifying multiple voices or perspectives within a single text (Perales-Escudero et al., 2023; Sandoval-Cruz et al., 2023). We have therefore labeled this IT “Receptive Polyphonic,” in reference to the fact that the genres read in teacher education typically include multiple voices and perspectives (Tosi, 2017).

Research articles in applied linguistics also often include unstated premises that readers need to infer to achieve a more complete understanding (Valerdi, 2020). It is reasonable to assume that fidelity to the content of such texts requires identifying multiple perspectives and inferring implicit propositions. It is also reasonable to assume that this way of reading is functional for pre-service language teachers during their undergraduate education, since they are in a context in which temporarily deferring to the text’s authority may be necessary for learning purposes (Wallace, 2003), and in which understanding multiple perspectives is also required (Barzilai & Weinstock, 2020). We also agree with Ghaith (2021) that a faithful representation of propositional content is necessary for engaging in other forms of reading; indeed, he has shown that so-called transmissive readers can and do engage in sophisticated inferential and critical processes.

The next two ITs are inspired by Makuc’s (2008) literary IT. From the perspective of the Interpretive IT, “comprehension is an active process of meaning construction guided by the reader that can give rise to multiple subjective interpretations and is focused on imagination and aesthetic enjoyment” (Perales-Escudero et al., 2023, p. 62). The Applicative IT conceptualizes comprehension as a process of relating what is read to one’s own life, knowledge, and experiences to apply textual meanings to personal contexts. This process involves examining characters’ narrative arcs with the aim of contributing to the development of the reader’s own identity, which has been identified as an important feature of language teachers’ literary reading practices (Munita, 2013). The distinction between these two ITs is that the former focuses on pleasure and imagination, whereas the latter focuses on identity-related processes. However, the relevance of applicative beliefs for academic reading should not be overlooked, nor should the possibility that such beliefs may combine with other, non-literary ITs.

The next IT is Rhetorical Sourcing. The term “sourcing” refers to the examination of a text’s paratextual elements, or source features, in order to establish its trustworthiness (Brante & Strømsø, 2018; Bråten et al., 2018; Anmarkrud et al., 2022). These features include information about a text’s author or authors, their motives, the text’s context of publication, and its genre. We also include beliefs related to other paratextual elements, such as a text’s target audience and intertextual connections, which pertain to its rhetorical situation (Benítez, 2000). This IT is related to multiple-document comprehension (Britt et al., 2013; McCrudden et al., 2022),

as it involves the belief that effective comprehension requires evaluating sources and comparing propositions across related texts. It also includes the belief that readers should adjust their reading strategies according to genre, which is consistent with empirical findings on the genre-strategy nexus (Parodi et al., 2020). This IT is also related to metacognition, since adjusting strategies according to genre requires some degree of awareness and conscious regulation of reading processes. Similarly, as discussed by Anmarkrud et al. (2022), it is related to problem solving during reading; readers who endorse the epistemic beliefs associated with this IT are more likely to engage in effortful processing and adopt an evaluative stance toward texts (McCrudden et al., 2022).

Lastly, according to the Critical IT, effective comprehension involves “evaluating what is read, considering its veracity, relevance, and/or ideological bias” (Perales-Escudero et al., 2021, p. 25).

Implicit theory schemas

The concept of IT schemas derives from Ghaith’s (2021) work on transmissive and transactional models of reading. Ghaith (2021) called for a typological methodology that goes “beyond sorting reading responses into the two categories of transmission versus transactional” and instead accounts for “the variety of epistemic text views that could be held by readers” (p. 450). The taxonomy presented above represents a step toward such a typological methodology, as it encompasses a range of epistemic views of comprehension. However, we also interpret Ghaith’s (2021) references to schema research as an invitation to examine clusters of ITs, since readers may hold more than one IT (Perales-Escudero et al., 2021, 2023).

In using the term “schemas” to refer to combinations of ITs, we do not suggest that ITs are held as global, stable structures in readers’ cognition. Most scholarship on ITs rejects this notion and instead proposes that ITs are activated as networks of neural patterns in response to situational task demands (Rodrigo & Correa, 2001). We use “schemas” to build on the term suggested by Ghaith (2021) and to remain consistent with our own use of “aschematic” and “multischematic” to refer, respectively, to readers without identifiable ITs and to readers who hold more than one IT (Perales-Escudero et al., 2023).

Higher reading frequency and greater genre or task variety may be associated with the synthesis of several reading comprehension ITs. Because different ITs may be functional for different reading tasks, readers with richer schemas may be better positioned to succeed across a range of comprehension tasks by drawing on different configurations of ITs.

METHODS

This quantitative study used a non-experimental, cross-sectional, descriptive-correlational design. It was conducted at a public university in southeastern Mexico. The participants were 494 undergraduate students enrolled in a Bachelor’s degree program in TEFL, offered across different campuses of the university. Fifteen participants had

missing data; therefore, the final sample consisted of 479 students. Of these, 319 were female, 146 were male, and 14 were non-binary. Participants' ages ranged from 18 to 24. A total of 237 students were in their first year of study, 148 were in the middle years of the program (second and third years), and 94 were in their final year. Academic progress was operationalized as year of study. The program's total population was 544 at the time of data collection (Spring–Summer 2022), so the sample represented 88.05% of the population. Random stratified sampling was used to ensure representation across years of study.

The SITREC scale was administered to the participating students as follows. The authors and research assistants obtained permission from university authorities to contact teachers from different courses in each academic semester. In-situ classroom visits were then scheduled with each teacher. During these visits, the authors explained the purpose of the study, requested students' consent, and distributed printed copies of the SITREC scale, along with a consent letter and a form designed to collect demographic data, including reading frequency. Importantly, the reading-frequency question asked how often participants read a variety of academic and vernacular genres and offered three response options: low, moderate, and high frequency and variety. Although we refer to this variable as reading frequency, we acknowledge that it conflates frequency and genre variety. This constitutes a limitation of the present study, as it prevents a more precise examination of the distinct associations of each dimension; future research should address this limitation.

Students who agreed to participate completed the SITREC and the demographic data form without any time limit. The authors and research assistants collected the forms, and the assistants entered the data into a Microsoft Excel © spreadsheet. The resulting database was then imported into the Statistical Package for the Social Sciences (SPSS, version 26). The following statistical procedures were conducted to identify the ITs in the sample: Kaiser-Meyer-Olkin measure of sampling adequacy, Bartlett's test of sphericity, Principal Component Analysis (PCA) with Varimax rotation, Cronbach's alpha, and McDonald's omega (ω). McDonald's omega was calculated using the SPSS extension provided by Hayes and Coutts (2020). PCA is an accepted statistical procedure in IT research (Jiménez & Correa, 2002). Conducting a new PCA was important because the socioculturally situated nature of ITs means that combinations of beliefs may differ from those found in previous studies. Specifically, the study that validated the current version of SITREC was conducted at a different campus with somewhat different sociocultural characteristics (Perales-Escudero et al., 2023).

Further analyses were conducted because McDonald's omega (ω) for each subscale was equal to or greater than .65, which is the cut-off point recommended by Kalkbrenner (2024). Cronbach's alpha was also above .60 for all dimensions, which is considered adequate according to Taber (2018) and Griethuijsen et al. (2014). Taber (2018) also recommends complementing statistical estimates of internal consistency with a qualitative analysis of item coherence. Accordingly, we carefully examined the items in each subscale and assessed their cohesiveness in relation to the constructs represented by the subscales. Both McDonald's omega and Cronbach's alpha are reported in Table 2.

Participants were classified as holding a given implicit theory when their summed Likert score for the items associated with that theory met or exceeded the threshold equivalent to selecting 4 (“agree”) on all items in the corresponding subscale. For example, because the Rhetorical Sourcing IT comprises six items, participants were assigned to this IT if the sum of their responses to those items was equal to or greater than 24. Table 2 provides the exact cut-off points.

Table 2. Cut-off points for assigning ITs

IT	Cut-off point
Applicative	Equal to or greater than 20
Receptive-Polyphonic	Equal to or greater than 20
Critical	Equal to or greater than 20
Interpretive	Equal to or greater than 16
Rhetorical Sourcing	Equal to or greater than 24

To test the hypotheses related to schemas, two new schema variables were calculated using the grouped variables for each IT. The first treated schemas as a scale variable, with scores based on the number of ITs identified for each participant: 0 for aschematic participants, 1 for participants with one IT, 2 for participants with two ITs, and so on, up to 5 for participants with all five ITs. The second was a nominal variable that distinguished among aschematic participants, coded as 0 and defined as holding no ITs; monoschematic participants, coded as 1 and defined as holding one IT; and multischematic participants, coded as 2 and defined as holding more than one IT.

To test the hypotheses, grouped variables were first calculated for each IT. The normality and homoscedasticity of each dependent scale variable were then assessed using the Kolmogorov-Smirnov (K-S) test, Levene’s test, and visual inspection of histograms and scatterplots (Larson-Hall, 2016). Because these assumptions were not met, ANOVA and regression were not considered appropriate, particularly since violations were detected through visual inspection as well as statistical tests (Larson-Hall, 2016). Therefore, non-parametric tests were conducted: Kruskal-Wallis (K-W) tests were used to compare mean ranks, and chi-square tests were used to compare counts for nominal variables. Epsilon squared was calculated manually as the effect size for Kruskal-Wallis tests, whereas Cramer’s V was calculated in SPSS, version 26, as the effect size for chi-square tests.

RESULTS

The Kaiser-Meyer-Olkin measure of sampling adequacy was meritorious (KMO = 0.880). Bartlett’s test of sphericity was significant, $\chi^2(300) = 3090.037, p < .0001$. Exploratory and confirmatory PCA yielded five components. The resulting subscales, or ITs, are shown in Table 3.

Table 3. ITs in the sample

Beliefs about what effective comprehension involves	M	SD	Factorial weight	Cronbach's α	McDonald's ω
Applicative IT					
10) relating the text to my previous knowledge	4.00	.878	.245	.685	.695
15) applying the messages of the text to my own life	3.26	.969	.637		
18) analyzing characters' personal growth	3.60	1.011	.414		
20) relating the text to my own life	3.21	.966	.701		
24) understanding the text according to my own goals	3.22	1.005	.683		
Receptive Polyphonic IT					
9) understanding the text's message accurately				.715	.709
12) understanding the text's implicit messages	3.96	.897	.689		
21) identifying different points of view	3.81	.881	.535		
22) understanding the text's main ideas	3.99	.804	.512		
23) gaining a faithful understanding of the text	4.37	.756	.740		
	3.57	.919	.476		
Critical IT					
1) questioning the text's truthfulness				.641	.651
3) questioning the text's ideologies	3.64	.895	.489		
5) recasting ideas according to my own assessment	3.59	.872	.626		
11) developing my own ideas from the text's content	3.77	.874	.655		
14) assessing the relevance of the text to my own context	3.99	.873	.473		
	3.29	.938	.396		
Interpretive IT					
2) being gripped by the plot				.646	.658
4) getting excited about the events in the text	3.82	.938	.688		
7) understanding the text freely	3.68	1.048	.740		
25) imagining intensely what is happening in the text	3.70	1.032	.286		
	3.66	1.060	.615		
Rhetorical Sourcing IT					
6) understanding authorial purposes				.662	.650
8) getting information about the author(s)	4.05	.856	.483		
13) getting information about the text's context	3.14	.917	.385		
16) adjusting my way of reading according to the genre	3.62	1.002	.709		
17) contrasting the text's ideas with those of other texts	3.69	.975	.236		
18) finding out the text's target audience	3.47	.864	.348		
	3.60	1.011	.617		

These ITs matched our taxonomy, except that some items related to readers' subjectivity as a guide to comprehension, associated with the Interpretive IT, clustered differently in this sample. Specifically, item 24 clustered with the Applicative IT items, whereas items 5 and 6 clustered with the Critical IT items. Thus, in this sample, readers who held the Applicative IT viewed setting their own reading goals as part of applying what they learn from texts to their own lives. Readers who held the Critical IT understood comprehension as a process of text evaluation through which they develop their own understanding of textual ideas on the basis of critical assessment.

As shown in Table 3, the Receptive Polyphonic IT was the most widely distributed IT, with 266 participants, or 55.5% of the sample. The least common was the Rhetorical Sourcing IT, with 144 participants, or 30% of the sample.

Table 4. Participants per IT (n = 479).

IT	Participants
Applicative	173 (36.1%)
Receptive Polyphonic	266 (55.5%)
Critical	169 (35.3%)
Interpretive	211 (44%)
Rhetorical Sourcing	144 (30%)

As shown in Table 4, most participants were classified as multischematic (n = 261, 54.5%). By contrast, 89 participants (18.6%) were classified as aschematic, and 129 (26.9%) as monoschematic.

Table 5. Participants' schemas (n=479)

Schema	Participants
Aschematic	89 (18.6%)
Monoschematic	129 (26.9%)
Multischematic	261 (54.5%)

Although all ITs were represented among monoschematic participants, the Rhetorical Sourcing IT was the least common in this group, with only nine participants, or 6.9% of monoschematic participants. The following sections examine the associations between ITs and the independent variables.

Beliefs and reading frequency

Eighty participants self-identified as infrequent readers, 311 as moderately frequent readers, and 88 as highly frequent readers. Table 5 shows the mean and standard deviation for each IT and for the schema scale variable by reading frequency and genre variety.

Table 6. Mean and standard deviations for ITs and schema per reading frequency

	Infrequent N=80		Moderately frequent N=311		Highly frequent N=88	
	M	SD	M	SD	M	SD
Applicative	16.59	3.04	17.28	3.17	18.03	3.41
Receptive Polyphonic	19.23	2.82	19.75	2.79	19.98	3.31
Critical	17.88	2.83	18.23	2.74	18.81	3.19
Interpretive	14.04	2.56	14.92	2.79	15.38	3.13
Rhetorical Sourcing	21.35	3.5	21.51	3.07	22.76	4.17
Schema (scale)	1.70	1.41	1.92	1.52	2.5	1.67

A Kruskal-Wallis test showed significant differences in IT scores across reading-frequency and genre-variety groups, as shown in Table 7.

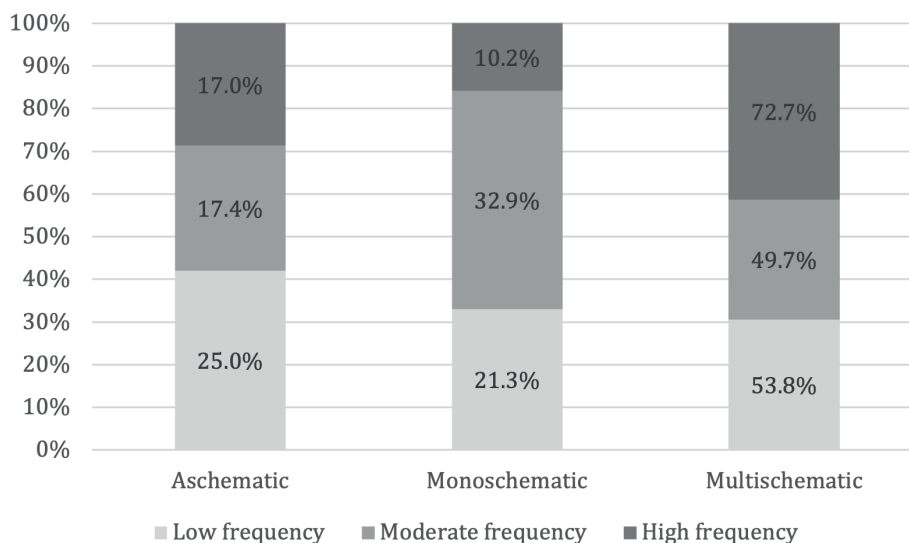
Table 7. Results of the K-W test for ITs and reading frequency

IT	K-W	gl	Sig	ϵ^2
Applicative	10.748	2	.005	.02
Receptive-Polyphonic	4.219	2	.121	.00
Critical	5.279	2	.071	.01
Interpretive	9.694	2	.008	.02
Rhetorical Sourcing	12.625	2	.002	.02

Pairwise comparisons for the Applicative, Interpretive, and Rhetorical Sourcing ITs revealed significant differences between low and moderate reading frequency ($p < .05$) and between low and high reading frequency ($p < .01$) for all three ITs. The remaining pairwise comparisons were not significant. Chi-square tests showed significant associations with reading frequency only for the Rhetorical Sourcing IT, $\chi^2 = 16.051$, $p < .001$, Cramer's $V = .182$, and the Applicative IT, $\chi^2 = 8.293$, $p = .016$, Cramer's $V = .131$. All other chi-square tests for reading frequency were non-significant.

Regarding schemas, a chi-square test showed significant differences by reading frequency when comparing aschematic, monoschematic, and multischematic readers, $\chi^2 = 26.043$, $p < .001$, Cramer's $V = .155$. The number of multischematic readers who were also highly frequent readers was higher than expected, 64 observed versus 48.1 expected, and they constituted a large majority of highly frequent readers, 72.7%. Multischematic readers also constituted a majority among infrequent readers, 53.8%. However, the proportion of aschematic readers was highest among infrequent readers, 25%, with a higher-than-expected count, 20 observed versus 14.9 expected. This proportion was also higher than in the other frequency groups, 17.4% of moderately frequent readers and 17% of highly frequent readers. Monoschematic readers had higher-than-expected counts among moderately frequent readers, 102 observed versus 83 expected; at 32.9%, their share was also the highest in this group, compared with 21.3% among infrequent readers and 10.2% among highly frequent readers. Figure shows the distribution of reading-frequency levels across the three types of reader schemas.

Figure. Distribution of reading frequency levels across schemas.



When schemas were considered as a scale variable, a Kruskal-Wallis test revealed significant differences across reading-frequency groups, $H = 11.708$, $df = 2$, $p < .01$. Dunn-Bonferroni post hoc tests were used to conduct pairwise comparisons, which are displayed in Table 8. The second column reports the mean rank differences. These comparisons showed significant differences between infrequent and highly frequent readers ($p < .01$) and between moderately frequent and highly frequent readers ($p < .01$). The effect sizes for these two pairwise comparisons were moderate, .13 and .10, respectively (Mangiafico, 2016). There were no significant differences between infrequent and moderately frequent readers.

Table 8. Post-hoc comparisons for schemas and reading frequency

Pair	Mean ranks	Adjusted Sig.	ϵ^2
Infrequent vs. moderately frequent	16.394	1.000	.03
Infrequent vs. highly frequent	65.483	.005	.13
Moderately frequent vs. highly frequent	49.089	.008	.10

Beliefs and academic progress

A total of 237 participants were first-year students, 82 were sophomores, 66 were juniors, and 94 were seniors. Sophomores and juniors were grouped together as students in the middle years of the program. Table 9 presents the descriptive statistics for these groups, and Table 10 reports the Kruskal-Wallis results.

Table 9. Mean and standard deviation for ITs and schema per year of studies

	First-year N=237		Middle years N=148		Final year N=94	
	M	SD	M	SD	M	SD
Applicative	17.28	2.99	17.55	3.20	17.30	3.21
Receptive Polyphonic	19.78	2.70	19.41	3.15	20	2.94
Critical	18.22	2.69	18.06	2.98	18.79	2.98

Interpretive	14.82	2.76	15.01	2.90	14.68	2.96
Rhetorical Sourcing	21.73	3.44	21.56	3.32	21.93	3.48
Schema (scale)	1.89	1.53	2.12	1.63	1.99	1.55

Table 10. Results of the K-W test for academic progress for ITs

IT	K-W	df	Sig
Applicative	3.320	2	.190
Receptive-Polyphonic	1.326	2	.515
Critical	5.233	2	.073
Interpretive	1.373	2	.503
Rhetorical Sourcing	.768	2	.681

The only significant chi-square result was found for the Critical IT, $\chi^2 = 7.885$, $p = .019$, Cramer's $V = .128$. The observed count of participants with the Critical IT was higher than expected among final-year students, 44 observed versus 32.8 expected. The proportion of participants with the Critical IT was also highest in this group, 46.8%, compared with [verify percentage] for sophomores and juniors and 30.5% for first-year students. All other chi-square results were non-significant, $p > .10$.

Regarding schemas, a chi-square test showed no significant association between participants' schemas and year of study, $\chi^2 = 2.016$, $p = .733$, Cramer's $V = .046$. Similarly, a Kruskal-Wallis test showed no significant differences in schema scores by year of study, $H = 2.059$, $df = 2$, $p = .357$.

Beliefs and gender

Table 11. Mean and standard deviation for ITs and schema per gender

	Male N=146		Female N=319		Non-binary N=14	
	M	SD	M	SD	M	SD
Applicative	17.24	3.18	17.35	3.23	17.14	2.95
Receptive Polyphonic	19.79	2.77	19.77	2.81	18.43	3.52
Critical	18.31	2.90	18.33	2.75	17.93	2.89
Interpretive	14.54	2.90	15.02	2.78	14.29	2.99
Rhetorical Sourcing	21.72	3.22	21.74	3.46	21.57	3.77
Schema (scale)	1.93	1.61	2.03	1.52	1.86	1.65

Kruskal-Wallis tests showed no significant differences in IT scores by gender, $p > .10$ in all cases.

Table 12. Results of the K-W test for ITs per gender

IT	K-W	df	Sig
Applicative	.394	2	.941
Receptive-Polyphonic	4.763	2	.190
Critical	5.630	2	.131
Interpretive	2.972	2	.396
Rhetorical Sourcing	2.842	2	.417

Similarly, chi-square tests showed no significant associations between gender and any of the ITs, $p > .10$ in all cases. The same was true for the association between gender and schemas, $\chi^2 = 5.845$, $df = 5$, $p = .483$. A Kruskal-Wallis test also showed no significant differences in schema scores by gender, $H = 1.583$, $df = 2$, $p = .663$.

DISCUSSION AND CONCLUSIONS

The role of beliefs in reading comprehension and reading instruction is well established (Ghaith, 2021; Mo, 2020). It is also widely acknowledged that conceptualizations of reading comprehension vary across cultures because of differences in socially shared understandings of reading (Rodrigo & Correa, 2001; Rodríguez, 2000–2001; Snow, 2010). This variation, in turn, gives rise to different types of reading tasks, valued reading practices, and expected outcomes (Jiménez-Llanos, 2009; Loyo & Hernández, 2022). From the perspective of ITs, diverse sociocultural factors converge in proximal contexts of reference, where reading practices and discourses about reading contribute to the synthesis of different ITs and schemas.

This study examined associations among ITs, schemas, and readers' sociocultural variables, including gender, reading frequency and genre variety, and academic progress. These variables are related to proximal contexts of reference and may therefore be associated with differences in ITs and schemas. A key contribution of the present study is its focus on IT schemas, rather than only on discrete ITs. In this sense, the study moves beyond a dimensional approach and adopts a typological perspective (Ghaith, 2021). It therefore differs from previous studies of reading ITs, such as Errázuriz et al. (2019, 2020), Vilca-Rodríguez and Torres-Orihuela (2023), and Sandoval-Cruz et al. (2025), because it describes clusters of ITs and their associations with academic progress and reading frequency and genre variety, which those studies did not examine. It also differs from them by including beliefs about multiple-document comprehension, which is central to college-level reading.

In almost all cases involving associations among these variables, ITs, and schemas, the null hypotheses could not be rejected. One exception was reading frequency. Three ITs showed variation associated with reading frequency: Applicative, Rhetorical Sourcing, and Interpretive. Mean scores for these ITs increased as reading frequency increased. There were also more readers than expected with the Applicative and Rhetorical Sourcing ITs in the higher reading-frequency groups. Thus, more frequent readers also tended to hold the three more epistemic-interactive ITs, which generally aligns with the findings of previous studies (Moore & Narciso, 2011; Van Le, 2024; Vilca-Rodríguez & Torres-Orihuela, 2023). However, the effect sizes for the associations between reading frequency and individual ITs were small. These small effect sizes indicate that, despite statistically significant differences, the groups were very similar in practical terms. Pedagogically, these findings suggest that students may benefit from interventions focused on applying textual content to real-life tasks, practicing sourcing, and integrating content across sources.

In contrast, medium effect sizes were obtained for the associations between schemas and reading frequency. The trend was for more frequent readers who read across a variety of genres to be multischematic, whereas less frequent readers who engaged with a more restricted range of genres tended to be aschematic or

monoschematic. Pedagogically, this finding points to the importance of increasing both the frequency and genre variety of reading tasks in the target population, as the medium effect size suggests that this variable shows a stronger association with schematic development than the other variables examined. This finding also seems to confirm the importance of a typological perspective that considers readers' schemas rather than only discrete ITs (Ghaith, 2021). Multischematic readers hold a variety of ITs, which may make them better positioned to address diverse reading tasks successfully. Further studies should examine associations between schemas and reading performance. Notably, the low presence of aschematic readers among the pre-service teachers in this study contrasts with the findings of Cámara and García (2024), who found an absence of well-defined ITs among in-service teachers.

Importantly, the nature of the reading-frequency question constitutes a limitation, as it asked about reading frequency across a variety of genres. This suggests that frequency per se may not be the only factor involved. Rather, the combination of frequency and genre diversity may be associated with the synthesis of several ITs among multischematic readers. Future studies should seek to distinguish more clearly between the effects of reading frequency and those of genre diversity.

The other exception to the general failure to reject the null hypotheses concerned the association between the Critical IT and year of study, or academic progress. The number of final-year students with this IT was higher than expected and proportionally higher than in the other groups, although the effect size was small. This non-causal association suggests that exposure to reading tasks with critical demands may increase as pre-service teachers progress through their studies, potentially contributing to the synthesis of this IT. These results partially align with those of Navarro and Mora-Aguirre (2019) and Van Le (2024), who found changes toward more functional writing ITs associated with academic progress. However, in the present study, only critical reading showed this pattern. The small effect size suggests that students at all levels of academic progress could benefit from interventions targeting critical reading, including the identification and critique of ideological biases in texts. The lack of differences in other ITs in relation to academic progress may indicate that the kinds of tasks conducive to their development do not increase across academic years, suggesting the need to implement such tasks more systematically.

The fact that most ITs in the present study did not show changes associated with academic progress is particularly relevant for the Rhetorical Sourcing IT. Our results show that this was the least widespread IT, even though it is related to multiple-document comprehension. This type of comprehension predicts college success (Mahlow et al., 2020) and is associated with critical literacy, metacognition, problem solving during reading, and evaluative stances toward texts (Sinatra & Lombardi, 2020; Anmarkrud et al., 2022; McCrudden et al., 2022). Its limited presence and lack of increase across years of study strongly suggest that multiple-document comprehension practices should be taught more explicitly in the target context and across all years of the program. Such teaching should include the contrastive reading of multiple sources, evaluation of source trustworthiness, comparison of perspectives, and work with multiple documents

(McCrudden et al., 2022). This would help prevent potential misalignments between the expectations of academic cultures and students' reading beliefs and practices, and would therefore constitute an act of epistemic justice (Loyo & Hernández, 2022).

The uniformity of ITs and schemas across genders differs from the findings of previous studies that reported associations between gender and reading beliefs (Errázuriz et al., 2020; Navarro, 2021). However, the absence of significant gender differences should not be interpreted as evidence of egalitarian reading practices. Rather, this finding should be further examined in future studies, particularly through qualitative or mixed-methods approaches, given the limited scope of the present study's analysis of this variable.

In closing, we highlight the main contributions and limitations of this paper. We have shown the existence of IT schemas and their diversification in association with reading frequency and genre variety among pre-service EFL teachers in a local context of the Global South. We have also shown that the Rhetorical Sourcing IT needs to be promoted in the target context as an act of epistemic justice and redistribution of semiotic capital. Further studies should continue examining how different reading practices contribute to the development of multischematic readers, who may be better positioned to engage effectively in a variety of reading practices. Following Vilca-Rodríguez and Torres-Orihuela (2023) and Makuc (2020), future research should compare the academic performance and reading strategies of multischematic readers with those of monoschematic and aschematic readers.

The study has several limitations. Its cross-sectional, associative design prevents the establishment of causal relationships among variables. The study was also restricted to one institutional setting and relied on self-reported reading-frequency data, which may have been affected by social desirability bias. In addition, the reading-frequency variable conflated frequency and genre variety, which limits the interpretation of their distinct associations with ITs and schemas. Finally, several subscales showed relatively low internal consistency. Considering these limitations, future studies should replicate the study in other institutional contexts, use more robust designs, and include additional sources of data.

REFERENCES

- Anmarkrud, Ø., Bråten, I., Florit, E., & Mason, L. (2022). The role of individual differences in sourcing: A systematic review. *Educational Psychology Review*, (34), 749-792. <https://doi.org/10.1007/s10648-021-09640-7>
- Barzilai, S., & Weinstock, M. (2020). Beyond trustworthiness: Comprehending multiple source perspectives. In A. List, P. Van, D. Lombardi & P. Kendeou (Eds.). *Handbook of learning from multiple representations and perspectives* (pp.123-140). Routledge.
- Benítez Figari, R. (2000). La situación retórica: su importancia en el aprendizaje y en la enseñanza de la producción escrita. *Revista Signos. Estudios de Lingüística*, 33(48), 49-67. <http://dx.doi.org/10.4067/S0718-09342000004800005>
- Brante, E.W., & Strømsø, H. (2018). Sourcing in text comprehension: A review of interventions targeting sourcing skills. *Educational Psychology Review*, 3(30), 773-799. <https://doi.org/10.1007/s10648-017-9421-7>

- Bråten, I., Stadtler, M., & Salmerón, L. (2018). The role of sourcing in discourse comprehension. In M.F. Schober, D.N. Rapp & A. Britt (Eds.). *The Routledge handbook of discourse processes* (2a Ed., pp. 141-166). Routledge.
- Britt, A., Goldman, S., & Rouet, J-F. (Coords.) (2013). *Reading: From words to multiple texts*. Routledge. <https://doi.org/10.4324/9780203131268>
- Cámara Ulloa, C.M., & Platas García, A. (2024). Teorías implícitas sobre comprensión lectora de docentes de primer ciclo de educación básica. *Revista de Investigación Educativa RedCa*, 6(18), 63-90. <https://revistaredca.uaemex.mx/article/view/21235>
- Cámara Ulloa, C.M., & Platas García, A. (2021). Clasificación de docentes de primaria con respecto a sus teorías implícitas de comprensión lectora. In E. Sebastián-Heredero & J.L. Bonilla Esquivel (pp. 608-616). *Actas del XV Encuentro Iberoamericano de Educación*. CETYS Universidad.
- Errázuriz, M.C., Becerra, R., Aguilar, P., Cocio, A., Davison, O., & Fuentes, L. (2019). Perfiles lectores de profesores de escuelas públicas de la Araucanía, Chile. Una construcción de sus concepciones sobre la lectura. *Perfiles Educativos*, 41(164), 28-46. <https://doi.org/10.22201/iisue.24486167e.2019.164.58856>
- Errázuriz, M.C., Fuentes, L., Davison, O., Cocio, A., Becerra, R., & Aguilar, P. (2020). Concepciones sobre la lectura del profesorado de escuelas públicas de la Araucanía: ¿cómo son sus perfiles lectores? *Revista Signos. Estudios de Lingüística*, 53(103), 419-448. <https://doi.org/10.4067/S0718-09342020000200419>
- Ghaith, G. (2021). A study of the implicit reading beliefs of a cohort of college EFL readers and their responses to narrative text. *Reading Psychology*, 42(4), 435-453. <https://doi.org/10.1080/02702711.2021.1913461>
- Griethuijsen, R. A. L. F., Eijck, M. W., Haste, H., Brok, P. J., Skinner, N. C., Mansour, N., et al. (2014). Global patterns in students' views of science and interest in science. *Research in Science Education*, 45(4), 581-603. <https://doi.org/10.1007/s11165-014-9438-6>.
- Guthrie, J.T., & Klauda, S.L. (2014). Effects on classroom practices on reading comprehension, engagement, and motivation for adolescents. *Reading Research Quarterly*, 49(4), 387-416. <https://doi.org/10.1002/rrq.81>
- Hayes, A. F., & Coutts, J. J. (2020). Use omega rather than Cronbach's alpha for estimating reliability. *But... Communication Methods and Measures*, (14), 1-24. <https://doi.org/10.1080/19312458.2020.1718629>
- Hee, E.J., & Yamashita, J. (2022). L2 reading comprehension and its correlates: A metaanalysis. In E.H. Yee & In'nami, Y. (2022). *Understanding L2 proficiency. Theoretical and meta-analytic investigations* (pp. 235-284). John Benjamins.
- Hernández, G. (2008). Teorías implícitas de lectura y conocimiento metatextual en estudiantes de secundaria, bachillerato y educación superior. *Revista Mexicana de Investigación Educativa*, 13(38), 737-771. <https://comie.org.mx/revista/v2018/rmie/index.php/nrmie/article/view/577/577>
- Jiménez, A.B., & Correa, A.D. (2002). El modelo de teorías implícitas en el análisis de la estructura de creencias del profesorado universitario sobre la enseñanza. *Revista de Investigación Educativa*, 20(2), 525-548.
- Jiménez-Llanos, A. B. (2009). Un contraste de ideas entre niveles educativos. Las teorías implícitas de los profesores de educación infantil y primaria, secundaria y superior. In J. Marrero Acosta (Ed.). *El pensamiento reencontrado* (pp. 47-94). Octaedro.

- Kalkbrenner, M. T. (2024). Choosing between Cronbach's Coefficient Alpha, McDonald's Coefficient Omega, and Coefficient H: Confidence intervals and the advantages and drawbacks of interpretive guidelines. *Measurement and Evaluation in Counseling and Development*, 57(2), 93-105. <https://doi.org/10.1080/07481756.2023.2283637>
- Larson-Hall, J. (2016). *A guide to doing statistics in second language research using SPSS and R*. (2nd Ed.). Routledge.
- Lordán, E., Solé, I., & Beltrán, F. (2015). Development and initial validation of a questionnaire to assess the reading beliefs of undergraduate students: The Cuestionario de creencias sobre la lectura. *Journal of Research in Reading*, 40(1), 37-56. <https://doi.org/10.1111/1467-9817.12051>
- Loyo, P. D., & Hernández, R. L. (2022). Redefiniendo la lectocomprensión. Una aproximación sociocultural. *Revista Electrónica Leer, Escribir y Descubrir*, 1(11), 23-41.
- Mahlow, N., Hahnel, C., Kroehne, U., Artelt, C., Goldhammer, F., & Schoor, C. (2020). More than (single) text comprehension?—On university students' understanding of multiple documents. *Frontiers in Psychology*, (11), 1-17. <https://doi.org/10.3389/fpsyg.2020.562450>
- Makuc, M. (2020). Teorías implícitas de los estudiantes sobre comprensión de textos: avances y principales desafíos de investigación en la formación inicial de profesores y otras disciplinas. *Sophia Austral*, 25, 71-92.
- Makuc, M. (2008). Teorías implícitas de los profesores acerca de la comprensión de textos. *Revista Signos. Estudios de Lingüística*, 68(41), 403-422. <https://doi.org/10.4067/S0718-09342008000300003>
- Makuc, M., & Larrañaga, E. (2015). Teorías implícitas acerca de la comprensión de textos: estudio exploratorio en estudiantes universitarios de primer año. *Signos*, 87, 29-53. <https://doi.org/10.4067/S0718-09342015000100002>
- Mangiafico, S. S. (2016). *Summary and analysis of extension program evaluation in R, version 1.18.8*. Rutgers. www.rcompanion.org/handobook
- Marrero Acosta, J. (2009). Escenarios, saberes y teorías implícitas del profesorado. In J. Marrero Acosta (Ed.). *El pensamiento reencontrado* (pp. 8-44). Octaedro.
- McCrudden, M.T., Bråten, I., & Salmerón, L. (2022). Learning from multiple texts. In R. Tierney, F. Rizsvi, & K. Ercikan. *International Encyclopedia of Education*, vol. 6 (pp. 353-363). Elsevier Science.
- Mo, X. (2020). *Teaching reading and teacher beliefs. A sociocultural perspective*. Springer.
- Moore, P., & Narciso, E. (2011). Modelos epistémicos de la lectura en estudiantes mexicanos. *Revista Mexicana de Investigación Educativa*, 51(16), 1197-1225. <https://comie.org.mx/revista/v2018/rmie/index.php/nrmie/article/view/411/411>
- Munita, F. (2013). Creencias y saberes de futuros maestros (lectores y no lectores) en torno a la educación literaria. *Ocnos*, 9, 69-87. https://doi.org/10.18239/ocnos_2013.09.04
- Navarro, F. (2021, Julio, 29-31). ¿Qué creen y hacen con la lectura y la escritura los estudiantes de pedagogía? Evidencias para orientar la evaluación docente [Keynote address]. *III Congreso Internacional de Formadores en Lenguas Extranjeras*, Puebla, Mexico.

- Navarro, F., & Mora-Aguirre, B. (2019). Teorías implícitas sobre escritura académica y su enseñanza: contrastes entre el ingreso, la transición y el egreso universitarios. *Universitas Psychologica*, 18(3), 1-17. <https://doi.org/10.11144/Javeriana.upsy18-3.tiea>
- Parodi, G., Moreno-de-León, T., & Julio, C. (2020). Comprensión de textos escritos: reconceptualizaciones en torno a las demandas del siglo XXI. *Íkala, Revista de Lenguaje y Cultura*, 25(3), 775-795. <https://doi.org/10.17533/udea.ikala.v25n03a10>
- Perales-Escudero, M.D., Busseniers, P., & Reyes Cruz, M. (2017). Variation in pre-service EFL teachers' implicit theories of reading: A qualitative study. *MEXTESOL Journal*. <http://doi.org/192.100.164.85/handle/20.500.12249/4052>
- Perales-Escudero, M.D., Correa, S., & Vega, S. (2021). Validation of the scale of implicit theories of reading comprehension (ETICOLEC as per its Spanish acronym) of in-service teachers. *OCNOS. Revista de Estudios sobre la Lectura*, 20(22), 21-32. https://doi.org/10.18239/ocnos_2021.20.2.2515
- Perales-Escudero, M. D., Garduño Buenfil, M., & Portillo Campos, V. E. (2023). Reading comprehension beliefs of Mexican pre-service language teachers: A Likert scale study. *Cuadernos de Investigación Educativa*, 14(2). <https://doi.org/10.18861/cied.2023.14.2.3375>
- RAND Reading Study Group (RRSG) (2002). Toward an R&D program in reading comprehension. Santa Monica, CA: RAND. https://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR1465.pdf
- Rodrigo, M. J. (1997). Del escenario sociocultural al constructivismo episódico: un viaje al conocimiento escolar de la mano de las teorías implícitas. En M. J. Rodrigo & J. Arnay (Comps.). *La construcción del conocimiento escolar* (pp. 177-191). Paidós.
- Rodrigo, M. J, Rodríguez, A., & Marrero, J. (Eds.) (1993). *Las teorías implícitas. Una aproximación al conocimiento cotidiano* (pp. 95-117). Visor.
- Rodrigo, M. J., & Correa, N. (2001). Representación y procesos cognitivos: esquemas y modelos mentales. En C. Coll., J. Palacios, & A. Marchesi (Comps.). *Desarrollo psicológico y educación, 2. Psicología de la educación escolar* (pp. 117-135). Alianza.
- Rodríguez Zidán, E. (2000-2001). Teoría implícita y formación inicial del profesorado de educación media. *Revista Enfoques Educativos*, 3(2), 145-155. <https://doi.org/10.5354/0717-3229.2000.48741>
- Sandoval-Cruz, R.I., Perales-Escudero, M.D., & Reyes-Cruz, M.R. (2025). Experiencias de alfabetización académico-disciplinar multilingües preuniversitarias y universitarias de estudiantes indígenas. *Educación y Humanismo*, 27(48), 1-24. <https://doi.org/10.17081/eduhum.27.48.6967>
- Sandoval Cruz, R.I., Reyes Cruz, M.R., & Valdez Hernández, S. (2023). Teorías implícitas de profesores de inglés en formación. *Sinéctica, Revista Electrónica de Educación*, (61), e1543. [https://doi.org/10.31391/S2007-7033\(2023\)0061-007](https://doi.org/10.31391/S2007-7033(2023)0061-007)
- Schraw, G. (2000). Reader beliefs and meaning construction in narrative text. *Journal of Educational Psychology*, 92(1), 96-106. <https://doi.org/10.1037/0022-0663.92.1.96>
- Schraw, G., & Bruning, R. (1999). How implicit models of reading affect motivation to read and reading engagement. *Scientific Studies of Reading*, 3(3), 281-302. https://doi.org/10.1207/s1532799xssr0303_5

- Schraw, G., & Bruning, R. (1996). Readers' implicit models of reading. *Reading Research Quarterly*, 31(3), 290-305. <https://doi.org/10.1598/RRQ.31.3.4>
- Sinatra, G. M., & Lombardi, D. (2020). Evaluating sources of scientific evidence and claims in the post-truth era may require reappraising plausibility judgments. *Educational Psychologist*, 55(3), 120-131. <https://doi.org/10.1080/00461520.2020.1730181>
- Snow, C. E. (2010). Reading comprehension: Reading for learning. In B. McGaw, P. Peterson, & E. Baker (Eds.). *International encyclopedia of education* (3rd Ed., pp. 413-418). Elsevier. <http://dx.doi.org/10.1016/B978-0-08-044894-7.00511-X>.
- Taber, K.S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48, 1273-1296. [10.1007/S11165-016-9602-2](https://doi.org/10.1007/S11165-016-9602-2)
- Tosi, C. (2017). La comprensión de textos especializados. Un estudio polifónico-argumentativo sobre las dificultades de lectura en los estudios de formación docente en la Argentina. *Revista Actualidades Investigativas en Educación*, 17(3), 1-22. <https://doi.org/10.15517/aie.v17i3.29570>
- Valerdi, J.C. (2020). *Valoración y argumentación lingüística: análisis del lenguaje evaluativo en la estructura argumentativa del discurso académico en español* [Doctoral dissertation, Universidad Nacional Autónoma de México]. Repositorio Universitario ENALLT.
- Van Le, H. (2024). Exploring critical reading practices among Malaysian and Vietnamese engineering students: Insights and implications. *Journal of College Reading and Learning*, 54(4), 219-244. <https://doi.org/10.1080/10790195.2024.2422633>
- Vilca-Rodríguez, M., & Torres-Orihuela, G. (2023). Teorías implícitas sobre la lectura en ingresantes universitarios con bajo rendimiento en comprensión de textos. Estudio de casos. *Boletín de la Academia Peruana de la Lengua*, (73), 89-119. <http://dx.doi.org/10.46744/bapl.202301.004>
- Wallace, C. (2003). *Critical reading in language education*. Palgrave Macmillan.