

Exploring the Relationship between Reading Comprehension and Text Genres in Fifth and Sixth Grade

Zoe Krokou

Hellenic Open University, Patras, Greece
Email: krokou.zoi@ac.eap.gr

How to cite this paper: Krokou, Z. (2022). Exploring the Relationship between Reading Comprehension and Text Genres in Fifth and Sixth Grade. *Psychology*, 13, 979-993.
<https://doi.org/10.4236/psych.2022.137067>

Received: May 21, 2022
Accepted: July 10, 2022
Published: July 13, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This research examines reading comprehension as regards the two main text genres, narrative and informational, differentiated in terms of content, in relation to the students' prior knowledge. At the same time, it also examines the difficulties students face at the different levels of reading comprehension, i.e. the vocabulary, literal, intratextual and intertextual level. Our sample consists of 1614 students of the two upper classes of the Greek elementary school; the students are proficient in decoding, have been taught the characteristics of the corresponding textual structure, and had not been identified with any particular difficulties in reading comprehension during previous years. Research findings showed that students' reading comprehension was influenced more by the occurrence of unfamiliar content in the narrative text, than by the linear structure of the informational text. Moreover, the differences between the levels of comprehension in both text genres are statistically significant, with the students of the sixth grade performing better at all levels of comprehension compared to the students of the fifth grade; in the contrary the vocabulary comprehension, the difference is considered statistically insignificant.

Keywords

Reading Comprehension, Narrative Texts, Informational Texts, Levels of Reading Comprehension, Content, Prior Knowledge

1. Text Genres

Texts are vehicles for knowledge acquisition. It is the reader who absorbs and transmits knowledge; thus, the relationship between the reader and the text is important and, for that reason, it is a subject that is taught at all levels of our

educational system. The distinction of text genres—in narrative and informational—aims at their more detailed study and their better teaching.

The structure of narrative texts is more familiar to students, compared to the structure of informational texts, with the result being that they understand the former more easily than the latter (Clinton et al., 2020; McTavish, 2008; Pressley, 2000). In the US, research has shown that students are taught narrative texts four times more often than informational texts (Erickson, 1998); Duke (2004) adds that teachers in the first grades of elementary school dedicate only 3.6 minutes per day to the teaching of informational texts. The students' limited contact with informational texts was considered as one of the reasons why the fourth and, mainly, fifth-graders present a declining course, or a slump, in the development and achievement of comprehension, as the texts gradually become more demanding (Sanacore & Palumbo, 2009; Best, Floyd, & McNamara, 2004).

Narrative and informational texts showcase different structural characteristics, which readers inadvertently or intentionally seek, as they rely on them in order to comprehend the texts, and also because they are indicators of the difficulties they possibly encounter in terms of reading comprehension (Collins et al., 2020; Best, Ozuru, Floyd, & McNamara, 2006; McNamara & Kintsch, 1996).

Narrative texts are characterized by the “grammar of the text”, i.e. a coherent textual structure, which is based on time sequence and cause-effect relationship (Graesser, Golding, & Long, 1991; de Beaugrande & Dressler, 1981).

The narrative structure, or textual scheme, or “grammar of the text” was categorized (Page & Stewart, 1985) into two models: a) the model based on the creation of logical inferences (Graesser, McNamara, & Louwerse, 2003), where the information required to understand the text may not be contained in it; b) the model based on the textual structure (Halliday & Hasan, 1976), according to which the reader, in order to understand a text, should create cognitive representations based only on information retrieved from the text (Kintsch, 2005; Graesser, McNamara, & Louwerse, 2003; Kintsch, 1988). Students with reading difficulties may not be able to efficiently utilize one of the two models, or both models at the same time.

Unlike narrative texts that are oriented to the action of the protagonist(s), informational texts are timeless, oriented to a logically structured subject. While informational texts present a variety of structures with which students may not be familiar (Graesser, McNamara, & Kulikowich, 2011), narrative texts follow a specific textual structure, with which they are usually acquainted from a very young age; Englert & Hiebert (1984) and Meyer & Freedle (1984) distinguish informational texts based on their structure in: 1) cause-effect, 2) descriptive, 3) logical sequencing, 4) comparison-contrast, and 5) problem-solving.

Another difference between informational and narrative texts is that the former offer readers new information, which they must understand in order to be able to transmit it, as this is the primary purpose of these texts (Pyle et al., 2017; Best, Rowe, Ozuru, & McNamara, 2005; Duke, 2004; Hall, 2004).

2. The Role of Text Genres in Reading Comprehension

At a very early age, children come into contact with reading through fairy tales or stories that they hear from their family environment. Thus, these simple in content texts, read repeatedly to children, constitute the means through which the process of comprehension is inadvertently being “learned” and further supported by the rich accompanying illustration (Araújo & Costa, 2015). When children enter school, they move on to reading for the acquisition of knowledge, and to more demanding levels of comprehension, while text starts to be viewed as an educational tool (McNamara, Floyd, Best, & Louwerse, 2004). Gradually, students come into contact with different types of texts: texts in school textbooks, texts from books or magazines, electronic texts, narrative, descriptive, informative, argumentative, advertising texts, etc.

Fox & Alexander (2009: pp. 230-232), in a review of several studies, argue that readability, the text genre, the textual structure, coherence, the communication channel (school textbooks, electronic information) and printing are the most important textual factors affecting reading comprehension. There are several researchers (Loyd & Steele, 1986; Singer & Ruddell, 1970) who have pointed out the significance of the underlying message of the text, giving the reader the role of the “decoder” and “recreator” of the text’s meaning.

According to constructivist theories (Kintsch, 1998, 2013), students primarily understand the “surface code”, i.e. the words of the text; then, they create the “text base”, i.e. organize the “ideas”—a process which is influenced by the syntactic structure of the text and the use of cognitive strategies; finally, they form a “situational model” by utilizing their prior knowledge and various metacognitive strategies (Perfetti, Landi, & Oakhill, 2005).

The significance of textual factors, along with the difficulties in reading comprehension that are mainly posed for fourth-grade students [fifth-grade based on Greek curricula] by scientific and informational texts, were studied by Sweet & Snow (2003), as well as Chall & Jacobs (2003).

Therefore, it becomes clear that familiarity with the structure of the text genre, along with the organization of the text, constitutes not only a variable for assessment, but also a teaching aim that is necessary for successful reading comprehension.

3. Comprehension Levels

The ways in which a text can potentially be interpreted are infinite, but they decrease dramatically when we focus on what someone has understood from that text. In recent years, we have seen multiple research that deals with the process of reading comprehension, as well as the resulting outcome, which can be assessed in various ways (Alderson, 2000). After all, the “potential meaning” of the text is the result of the reader’s interaction with it.

King (2007) distinguishes two general levels of comprehension: literal/shallow comprehension, which concerns the information (topic sentences, details) that a

person can recall and which are inherent in the text; and the inferential/profound comprehension, which requires the reader's critical thinking and deeper involvement with the text, as it is determined by high coherence, rich integration and plausible cognitive representations.

The reader can make simple sentential and intersentential conjunctions almost unconsciously, as well as "intratextual inferences" (Rayner & Reichle, 2010); these constitute the first category of inferences. The second category entails more complex inductions (causal, predictive, processing), which require the connection of the new information with the reader's pre-existing knowledge and lead to the central meaning of the text (Dickens & Meisinger, 2017; van den Broek et al., 2005; Kintsch, 1998; Graesser, Singer, & Trabasso, 1994); these are the "intertextual inferences" (Krokou, 2011; Chiesi, Spilich, & Voss, 1979).

Studies analysing factors that influence reading cite vocabulary knowledge as one of the most important variables (Ouellette & Beers, 2010). Alderson (2000), invoking Johnston's (1983) study, takes the view that vocabulary knowledge relates more to the reader's background knowledge than to a "vocabulary" knowledge. Also, Wright & Cervetti (2017) point out that the comprehension of texts is enhanced by the active teaching of new words [textual approach] rather than by a passive juxtaposition of their conceptual clarification.

In this study we will refer to literal comprehension, vocabulary comprehension, intratextual comprehension and intertextual comprehension, as they are precisely defined, absolutely linked to strategies that children have learned or can be taught with appropriate intervention programs, and have been utilized successfully in various modern standardized tests (Critical Reading Inventory-2: CRI-2: Applegate, Quinn, & Applegate, 2008; Gray Oral Reading Test: Gort-4: Wiederholt & Bryant, 2001).

4. Purpose of the Research

This research aims to investigate whether the reading comprehension of students in the fifth and sixth grade is influenced by the text genre to which the text belongs, and in particular, whether there are differences in the comprehension of narrative and informational texts between the two grades. In addition, it explores whether students' reading comprehension is differentiated by text genre in terms of the four (4) distinct levels: 1) vocabulary comprehension; 2) literal comprehension; 3) intratextual comprehension; and 4) intertextual comprehension. In Greece, there has been no prior empirically supported research of such kind that focuses on the need to clarify the interaction between the different comprehension levels, as well as on the ways with which they affect the process of comprehension and augment global knowledge.

5. Method

This research is part of a broader research aimed at assessing the reading comprehension of students with and without learning disabilities. A test was devel-

oped during initial research stages, in order to detect the level of reading comprehension (Krokou, 2011, 2018), and it was also used in this research.

Two questions are examined; the first is about the effect of text genres on reading comprehension, and the second concerns the impact of reading comprehension indicators, such as vocabulary, textbase indicator, inferential/intratextual indicator and intertextual indicator. Furthermore, the correlation between the four indicators of reading comprehension is considered. Relevant data deriving from the students of both grades were analyzed with the use of t-test and ANOVA.

6. Participants

The survey involved 1614 students from the fifth and sixth grade of elementary schools in Attica. Of the 1614 subjects in the sample, 824 (51.1%) were boys, and 790 (48.9%) were girls. The ages of the participants range from 9 years and 10 months to 14 years and 5 months, with an average of 11 years and a standard deviation of about 8 months (7.75).

Participating students were selected from the fifth (830 students, 51.4%) and the sixth grade (784 students, 48.6%) of elementary schools in the prefecture of Attica. It should be noted that all students of the selected classes participated in the study, including foreign students who had a good knowledge of the Greek language, and students with low performance due to the existence of neurobiological or genetic disorders.

7. The Reading Comprehension Assessment Test

The test for the assessment of reading comprehension consists of two texts, one narrative and one informational, of an equivalent level (Krokou, 2011).

In particular, the narrative text consists of 290 words and the informational text of 326 words. The number of sentences is similar in both texts (Krokou, 2011). The size of the texts is also consistent with the texts that children come into contact with in the classroom (Keenan, Betjemann, & Olson, 2008; Ozuru et al., 2007; Alderson, 2000). Still, both texts are specific, the narrative text refers to actual historical event, and the informational text to an existing animal, and they have been selected in a manner consistent with the interests of children of this age (Alderson, 2000: p. 62).

Both texts contain no unfamiliar words for fifth- and sixth-graders. In the narrative text there are few specimens of figurative speech (similes, metaphors, entrenched expressions), the meaning of which can easily be concluded from the context. The informational text does not contain specimens of figurative speech, and the unknown words that the children may have are either clearly explained in an adjacent sentence, or their meaning is revealed in the context.

After the end of the texts, 50 comprehension questions follow, which have been designed on the basis of the four levels of comprehension: vocabulary comprehension, literal comprehension, intratextual comprehension, and intertextual comprehension (Krokou, 2011, 2018).

8. Process

As regards the administration of the reading comprehension assessment test, students first read the text and then are asked to answer the comprehension questions. In particular, the test is designed so that children read the text first and then answer the multiple-choice questions that follow it. Children are given the opportunity to refer to the text in order to clarify any question they wish (Sadoski & Paivio, 2007). This approach of comprehension assessment was selected because our interest does not lie in exploring what the students remember or how much knowledge they gain (Ozuru et al., 2007; Alderson, 2000), but in examining the availability or elimination inconsistencies of cognitive representations created during the first reading (Stine-Morrow et al., 2004; Alderson, 2000).

The duration of the test was approximately forty-five minutes. Each correct answer was scored with one (1) point, and each wrong answer with zero (0) points.

9. Findings

Initially, the difficulty indicator of the questions was studied, which is the percentage of correct answers for each question. The closer the indicator gets to 100%, the easier a question is (a question with an indicator of 100% has been answered by everyone), and the closer the indicator approaches 0%, the more difficult a question is (a question with an indicator of 0% has not been answered by anyone). If the indicator is around 50% (medium difficulty), the question is considered better and more effective. Many researchers consider that difficulty indicators should range from 20% to 80% (Kline, 2000). However, earlier studies suggest indicator values between 30% or 40% and 70% (Allen & Yen, 1979; Anastasi, 1982), as well as between 10% and 90% (Walsh & Benz, 1990). Almost everyone, however, agrees that the average indicator of difficulty should lie between 50% and 60%.

The statistical analyses show that the mean of the difficulty indicator (item difficulty) for the overall test is 68.20%; in particular, 65.80% for the fifth grade and 71.60% for the sixth grade.

9.1. Narrative and Informational Genres

In order to answer the first question about the effect of text genres on reading comprehension, relevant data deriving from the students of both classes were analyzed with the use of t-test and ANOVA. The results are presented in **Table 1** and **Table 2**.

9.2. Reading Comprehension Indicators

In order to answer the second question concerning the impact of reading comprehension indicators, a statistical analysis of t-test independent samples was performed; the results are presented in **Table 3**. This analysis shows that the

Table 1. T-test analysis results for the narrative and the informational genre.

Independent Samples T-Test					
	GRADE	N	Mean (Std. Deviation)	F	Sig.
Narrative_genre	5 th Grade	830	0.6489 (SD 0.158)	0.436	0.509
	6 th Grade	784	0.7119 (SD 0.157)		
Informational_genre	5 th Grade	830	0.6679 (SD 0.174)	5.168	0.023
	6 th Grade	784	0.7205 (SD 0.160)		

Table 2. ANOVA results for the narrative and the informational genre.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Narrative_genre	Between Groups	1600	1	1.600	64.511	0.000
	Within Groups	39,978	1613	0.025		
	Total	41,578	1614			
Informational_genre	Between Groups	1115	1	1.115	39.941	0.000
	Within Groups	44,990	1613	0.028		
	Total	46,105	1614			

Table 3. T-test analysis results for reading comprehension indicators.

Independent Samples T-Test					
	GRADE	N	Mean (Std. Deviation)	F	Sig.
Vocabulary_indicator	5 th Grade	830	0.685 (SD 0.22)	1.344	0.247
	6 th Grade	784	0.767 (SD 0.22)		
Textbase_indicator	5 th Grade	830	0.818 (SD 0.22)	14.547	0.000
	6 th Grade	784	0.888 (SD 0.20)		
Intratextual_indicator	5 th Grade	830	0.672 (SD 0.18)	3.902	0.048
	6 th Grade	784	0.717 (SD 0.17)		
Intertextual_indicator	5 th Grade	830	0.566 (SD 0.16)	0.169	0.681
	6 th Grade	784	0.624 (SD 0.16)		

average of the vocabulary indicator values of sixth-graders ($M = 0.767$, $SD = 0.22$) is higher than those of fifth-graders ($M = 0.685$, $SD = 0.22$), but this difference is not statistically significant. Correspondingly, the textbase indicator of sixth-graders ($M = 0.888$, $SD = 0.20$) is higher than that of fifth-graders ($M = 0.818$, $SD = 0.22$), and this difference is statistically significant for $p \leq 0.05$. The inferential indicator of sixth-graders ($M = 0.717$, $SD = 0.17$) is higher than that of fifth-graders ($M = 0.672$, $SD = 0.18$), and this difference is marginally statistically significant ($p = 0.048$). The intertextual indicator of sixth-graders ($M = 0.624$, $SD = 0.16$), is higher than that of fifth-graders ($M = 0.566$, $SD = 0.16$), and this difference is statistically significant for $p \leq 0.05$.

ANOVA was performed later on, the results of which show that the two groups of students present statistically significant differences in terms of reading indicators per school grade (**Table 4**). This means that the effect of the students' grade of attendance is statistically significant for the vocabulary indicator ($F = 54.344$, $p = 0.000$), for the textbase indicator ($F = 45.271$, $p = 0.000$), for the inferential/intratextual indicator ($F = 28.952$, $p = 0.000$), and for the intertextual indicator ($F = 55.378$, $p = 0.000$).

Finally, a correlation analysis (**Table 5**) was carried out, which shows that

Table 4. ANOVA results for reading comprehension indicators

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Vocabulary_indicator	Between Groups	2666	1	2.666	54.344	0.000
	Within Groups	79,092	1613	0.049		
	Total	81,758	1614			
Textbase_indicator	Between Groups	1987	1	1.987	45.271	0.000
	Within Groups	70,753	1613	0.044		
	Total	72,740	1614			
Inferential_indicator	Between Groups	0.845	1	0.845	28.952	0.000
	Within Groups	47,052	1613	0.029		
	Total	47,897	1614			
Intertextual_indicator	Between Groups	1389	1	1.389	55.378	0.000
	Within Groups	40,441	1613	0.025		
	Total	41,830	1614			

Table 5. Correlations between the four reading comprehension indicators.

		Correlations			
		Vocabulary indicator	Textbase indicator	Inferential indicator	Intertextual indicator
Vocabulary_indicator	Pearson Correlation	1	0.501**	0.435**	0.454**
	Sig. (2-tailed)		0.000	0.000	0.000
	N	1614	1614	1614	1614
Textbase_indicator	Pearson Correlation	0.501**	1	0.666**	0.640**
	Sig. (2-tailed)	0.000		0.000	0.000
	N	1614	1614	1614	1614
Inferential_indicator	Pearson Correlation	0.435**	0.666**	1	0.636**
	Sig. (2-tailed)	0.000	0.000		0.000
	N	1614	1614	1614	1614
Intertextual_indicator	Pearson Correlation	0.454**	0.640**	0.636**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	1614	1614	1614	1614

**Correlation is significant at the 0.01 level (2-tailed).

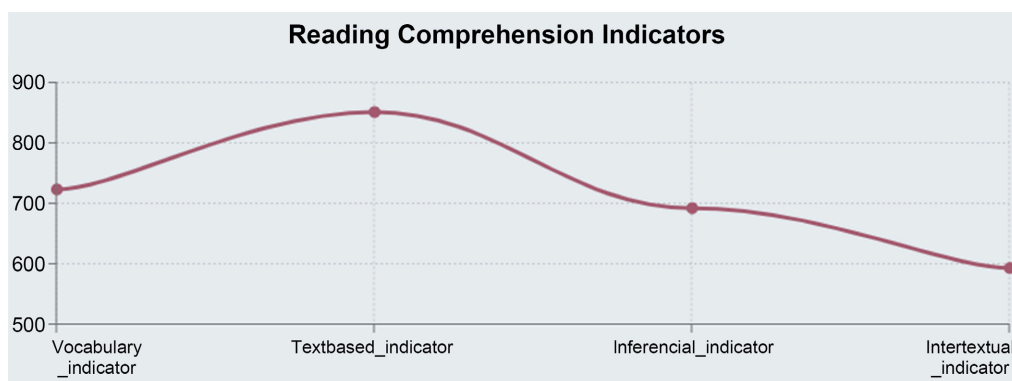


Figure 1. Reading comprehension indicators means chart.

there is a linear correlation between the four indicators of reading comprehension. Specifically, vocabulary indicator shows a satisfactory positive correlation with textbase indicator ($r = +0.501$), and moderate correlations with inferential indicator ($r = 0.435$) and intertextual indicator ($r = 0.454$). Also, textbase indicator shows strong correlations with inferential/intratextual indicator ($r = 0.67$) and intertextual indicator ($r = 0.640$). Finally, the inferential indicator also shows a strong correlation with the intertextual indicator ($r = 0.636$). All of the above correlations are statistically significant ($\text{sig} = 0.000$).

10. Discussion

The results of the statistical processing showed that textual genres affect students' reading comprehension, as there was a statistically significant differentiation in students' performance in both grades (**Figure 1**). In particular, all students presented a slightly higher performance regarding the informational text than the narrative. In addition, the students of the sixth grade achieved a higher overall performance in both texts than the students of the fifth grade. This finding, besides being plausible, is confirmed by corresponding studies that point out that, as students mature, they become more capable readers (*Dickens & Meisinger, 2017*).

In particular, the narrative text is not supported by the students' prior knowledge, while the subject of the informational text is indeed supported by it. Although the discrepancy in comprehension between the two texts is considered statistically significant for both grades, it appears that students performed better in the comprehension of the informational text. Therefore, it is believed that the importance of prior knowledge should be highlighted, as it represents a research issue that concerns several scientists. *Clinton et al. (2020)* emphasize that no other factor affects comprehension as much as the individual's prior knowledge of a subject, while *Kintsch (2013)* points out that when information is well organized in cognitive schemata and linked to the student's prior knowledge, the situational model of the text becomes coherent, while comprehension is maximized.

In addition, research by *Dickens & Meisinger (2017)* confirms our own findings, as it highlights the effect of the general knowledge available to an individual

on the comprehension of mainly informational texts.

Although both the students' familiarity with the structure of text genres (text-base indicator and inferential indicator), and the contribution of knowledge they may have on a subject (intertextual indicator) were examined as for their impact on reading comprehension, the comparative results show that the most important factor for seamless reading comprehension is the background knowledge that is related to the text [strong correlation of inferential indicator with intertextual indicator ($r = 0.636$)]. These data are also supported by research conducted by [McNamara & Kintsch \(1996\)](#) on students of the same age as our sample; they emphasize the great importance of prior knowledge in reading comprehension, while, even in earlier research, such as this by [Chiesi, Spilich, & Voss \(1979\)](#), it is noted that prior knowledge often complements or enhances reading ability. However, an interpretation of the findings of the meta-analysis undertaken by [Bogaerds-Hazenberg, Evers-Vermeul, & van den Bergh \(2021\)](#) suggests that, although there are no significant data on their correlation, the textual structure should be systematically taught in school, considering that this is the best way to support the difficult transition to reading for the purpose of learning. This view is supported by research conducted by [Graesser, McNamara, & Kulikowich \(2011\)](#).

The effect of the textual structure/textbase indicator on reading comprehension was studied by [McTavish \(2008\)](#) and [Pressley \(2000\)](#), who point out that narrative texts are more comprehensible because of their familiar textual structure, unlike informational texts, the structure of which is not causal but linear, and does not favor the formation of comprehension-enhancing inferences ([Best et al., 2006](#)). The above finding may not have been fully verified by our research, as prior knowledge on the subject of the text seemed to affect reading comprehension more, but the performance of our students in comprehending the narrative text was equally important, leading us to conclude that the teaching of textual structure is necessary for proficient reading comprehension.

In addition, students of the sixth grade achieved higher performance in all reading comprehension indicators than students of the fifth grade, except for the vocabulary indicator. Regarding that indicator, the pupils of the sixth grade again performed better than the pupils of the fifth grade, but this difference is not considered statistically significant. The lowest performance of all students as for the vocabulary level concerned the comprehension of words whose meaning was derived from the utilization of prior academic knowledge. Research points out that vocabulary that is not familiar to students ([Pyle et al., 2017](#); [Best, Floyd, & McNamara, 2008](#); [Hall, 2004](#)), or vocabulary that has not been taught just before reading, or is not activated ([Wright & Cervetti, 2017](#)), leads to incomplete comprehension, as it lacks meaning on the reader's end ([Ouellette & Beers, 2010](#)). This finding is consistent with the conclusions of other studies, which demonstrate the incomplete or limited teaching of vocabulary at school ([Wright & Cervetti, 2017](#)) as a predictive negative indicator for reading comprehension. The high correlation of the vocabulary indicator with the textual basis and less with prior

knowledge via inferences, demonstrates that, at that time, students seek meaning within context and do not use their own background knowledge—either by utilizing their memory or by inferencing (Perfetti, Landi, & Oakhill, 2005: p. 240).

Meta-analytical research by Clinton et al. (2020), despite highlighting that most research data show that intertextual comprehension is higher in narrative texts than in informational texts due to a more coherent situational model, nevertheless concludes that the readability of the text or the familiar subject, in a significant number of studies, affects the successful creation of inferences for both text genres. This is confirmed by the high correlation of indicators in our research.

As regards literal comprehension, students performed well in both texts, with slightly better scores in the informational text. However, Clinton et al. (2020) report that—in narrative texts—students create inferences more easily on the textbase. The difference in findings may be due to the familiar subject of the informational text, which may contribute to the ability of students to more easily make connections between bits of information presented in the text. However, the researchers above suggest a correlation of readability with other textual characteristics, such as, but not limited to, vocabulary, textual indicators, or the use of pronouns, since some studies present relevant findings.

The high correlation of intratextual comprehension indicators with those of intertextual comprehension states that, when difficulties arise in the formation of intertextual inferences, i.e. in the utilization of students' prior knowledge, there is limited use of cognitive and metacognitive strategies, to bridge the text's conceptual gaps (Kintsch, 2013). Research conducted by Graesser, McNamara, & Kulikowich (2011) reports that intratextual comprehension is more demanding in informational texts, as students do not know or have not been taught how to manage their demanding syntactic structure, a finding confirmed by the strong correlation of the textbase indicator with the inferential indicator in this research.

In conclusion, many scientific opinions converge on the significance of prior knowledge in the development of reading comprehension (Clinton et al., 2020; McNamara & Kintsch, 1996), as it promotes the formation of higher levels of comprehension and facilitates the appropriation of new knowledge. However, the importance of the textual structure, which should continue to have a primary role in text teaching (Bogaerds-Hazenberg, Evers-Vermeul, & van den Bergh, 2021), should not be overstressed, as comprehension is promoted when students know how to approach a text based on the genre to which it belongs. What is an important predictor of successful comprehension is the child's constant contact with different genres of printed speech from a very early age.

Research Limitations

The participants of the survey came only from the prefecture of Attica, so the results have been obtained from students attending schools of the largest urban center. In order to improve the representativeness of the results, research could

be extended to schools in the wider Greek region, in semi-urban and rural areas.

In addition, a process could be created in a future study that would be able to measure more accurately the readability of texts.

Future Suggestions

The results of this study could be utilized by researchers and educators in order to create intervention programs for the teaching of structure in narrative and informational texts, with the use of cognitive and metacognitive strategies; these strategies could derive from the understanding of interaction mechanisms between the different levels of reading comprehension, and they could be applied to the identification and recollection of the most important data.

Moreover, the results could also be put into good use for the creation of a methodological tool that would generate strategies and techniques for logical inferencing, something very important for intra- and intertextual comprehension, especially in regard to informational texts.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Alderson, J. C. (2000). *Assessing Reading*. Cambridge University Press.
- Allen, M. J., & Yen, W. M. (1979). *Introduction to Measurement Theory*. Brooks/Cole.
- Anastasi, A. (1982). *Psychological Testing*. Macmillan.
- Applegate, M. D., Quinn, K. B., & Applegate, A. J. (2008). *The Critical Reading Inventory: Assessing Students' Reading and Thinking*. Pearson.
- Araújo, L., & Costa, P. (2015). Home Book Reading and Reading Achievement in EU Countries: The Progress in International Reading Literacy Study 2011 (PIRLS). *Educational Research and Evaluation, 21*, 422-438. <https://doi.org/10.1080/13803611.2015.1111803>
- Best, R. M., Floyd, R. G., & McNamara, D. S. (2004). Understanding the Fourth-Grade Slump: Comprehension Difficulties as a Function of Reader Aptitudes and Text Genre. In *The 85th Annual Meeting of the American Educational Research Association. The American Educational Research Association*.
- Best, R. M., Floyd, R. G., & Mcnamara, D. S. (2008). Differential Competencies Contributing to Children's Comprehension of Narrative and Expository Texts. *Reading Psychology, 29*, 137-164. <https://doi.org/10.1080/02702710801963951>
- Best, R. M., Ozuru, Y., Floyd, R. G., & McNamara, D. S. (2006). Children's Text Comprehension: Effects of Genre, Knowledge, and Text Cohesion. In *Proceeding ICLS'06: Proceedings of the International Conference on Learning Sciences* (pp. 37-42). International Society of the Learning Sciences.
- Best, R. M., Rowe, M. S., Ozuru, Y., & McNamara, D. S. (2005). Deep-Level Comprehension of Science Texts. *Topics in Language Disorders, 25*, 65-83. <https://doi.org/10.1097/00011363-200501000-00007>
- Bogaerds-Hazenberg, S. T. M., Evers-Vermeul, J., & van den Bergh, H. (2021). A Meta-Analysis on the Effects of Text Structure Instruction on Reading Comprehension in

- the Upper Elementary Grades. *Reading Research Quarterly*, *56*, 435-462.
<https://doi.org/10.1002/rrq.311>
- Chall, J. S., & Jacobs, V. A. (2003). The Classic Study on Poor Children's Fourth-Grade Slump. *American Educator*, *27*, 14-15, 44.
- Chiesi, H. L., Spilich, G. J., & Voss, J. F. (1979). Acquisition of Domain-related Information in Relation to High and Low Domain Knowledge. *Journal of Verbal Learning and Verbal Behavior*, *18*, 257-273. [https://doi.org/10.1016/S0022-5371\(79\)90146-4](https://doi.org/10.1016/S0022-5371(79)90146-4)
- Clinton, V., Taylor, T., Bajpayee, S., Seipel, B., Carlson, S. E., & Davison, M. (2020). Inferential Comprehension Differences between Narrative and Expository Texts: A Systematic Review and Meta-Analysis. *Reading and Writing*, *33*, 2223-2248.
<https://doi.org/10.1007/s11145-020-10044-2>
- Collins, A., Compton, D., Lindstrom, E., & Gilbert, J. (2020). Performance Variations across Reading Comprehension Assessments: Examining the Unique Contributions of Text, Activity, and Reader. *Reading and Writing*, *33*, 605-634.
<https://doi.org/10.1007/s11145-019-09972-5>
- de Beaugrande, R., & Dressler, W. U. (1981). *Introduction to Text Linguistics*. Longman.
<https://doi.org/10.4324/9781315835839>
- Dickens, R. H., & Meisinger E. B. (2017). Examining the Effects of Reading Modality and Passage Genre on Reading Comprehension in Middle School Students. *Reading Psychology*, *38*, 321-347. <https://doi.org/10.1080/02702711.2016.1263701>
- Duke, N. K. (2004). The Case of Informational Text. *Educational Leadership*, *61*, 40-44.
- Englert, C. S., & Hiebert, E. H. (1984). Children's Developing Awareness of Text Structure in Expository Materials. *Journal of Educational Psychology*, *76*, 65-74.
<https://doi.org/10.1037/0022-0663.76.1.65>
- Erickson, L. G. (1998). Informational Literacy in the Middle Grades. *The Clearing House*, *71*, 165-168. <https://doi.org/10.1080/00098659809599352>
- Fox, E., & Alexander, P. A. (2009). Text Comprehension: A Retrospective, Perspective, and Prospective. In S. E. Israel, & G. G. Duffy (Eds.), *Handbook of Research on Reading Comprehension* (pp. 227-239). Routledge.
- Graesser, A. C., Golding, J. M., & Long, D. L. (1991). Narrative Representation and Comprehension. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of Reading Research* (pp. 171-205). Longman.
- Graesser, A. C., McNamara, D. S., & Kulikowich, J. M. (2011). Coh-Metrix: Providing Multilevel Analyses of Text Characteristics. *Educational Researcher*, *40*, 223-234.
<https://doi.org/10.3102/0013189X11413260>
- Graesser, A. C., McNamara, D. S., & Louwerse, M. M. (2003). What do Readers Need to Learn in Order to Process Coherence Relations in Narrative and Expository Text? In A. P. Sweet, & C. E. Snow (Eds.), *Rethinking Reading Comprehension* (pp. 82-98). The Guilford Press.
- Graesser, A. C., Singer, M., & Trabasso, T. (1994). Constructing Inferences during Narrative Text Comprehension. *Psychological Review*, *101*, 371-395.
<https://doi.org/10.1037/0033-295X.101.3.371>
- Hall, L. A. (2004). Comprehending Expository Text: Promising Strategies for Struggling Readers and Students with Reading Disabilities? *Reading Research and Instruction*, *44*, 75-95. <https://doi.org/10.1080/19388070409558427>
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. Longman.
- Johnston, P. H. (1983). *Prior Knowledge and Reading Comprehension test bias. Technical Report No. 289*. National Institute of Education.

- Keenan, J. M., Betjemann, R. S., & Olson, R. K. (2008). Reading Comprehension Tests Vary in the Skills They Assess: Differential Dependence on Decoding and Oral Comprehension. *Scientific Studies of Reading, 12*, 281-300. <https://doi.org/10.1080/10888430802132279>
- King, A. (2007). Scripting Collaborative Learning Processes: A Cognitive Perspective. *Computer-Supported Collaborative Learning, 6*, 13-37. https://doi.org/10.1007/978-0-387-36949-5_2
- Kintsch, W. (1988). The Role of Knowledge in Discourse Comprehension: A Construction-Integration Model. *Psychological Review, 95*, 163-182. <https://doi.org/10.1037/0033-295X.95.2.163>
- Kintsch, W. (1998). *Comprehension. A Paradigm for Cognition*. Cambridge University Press.
- Kintsch, W. (2005). An Overview of Top-Down and Bottom-Up Effects in Comprehension: The CI Perspective. *Discourse Processes, 39*, 125-128. https://doi.org/10.1207/s15326950dp3902&3_2
- Kintsch, W. (2013). Revisiting the Construction-Integration Model of Text Comprehension and Its Implications for Instruction. In D. E. Alvermann, N. J. Unrau, & R. B. Ruddell (Eds.), *Theoretical Models and Processes of Reading* (6th ed., pp. 807-839). International Reading Association. <https://doi.org/10.1598/0710.32>
- Kline, P. (2000). *Handbook of Psychological Testing*. Routledge.
- Krokou, Z. (2011). *From the Word... to the Sentence... to the Text*. Grigoris Publications.
- Krokou, Z. (2018). Questions as a Tool for Comprehension Assessment. In A. Kouloumparitsi (Ed.), *Assess and Learn: A Practical Guide for the Shaping Assessment of Students in the Classroom* (pp. 26-32). Grigoris Publications.
- Loyd, B. H., & Steele, J. L. (1986). Assessment of Reading Comprehension: A Comparison of Constructs. *Reading Psychology, 7*, 1-10. <https://doi.org/10.1080/0270271860070102>
- McNamara, D. S., & Kintsch, W. (1996). Learning from Texts: Effects of Prior Knowledge and Text Coherence. *Discourse Processes, 22*, 247-288. <https://doi.org/10.1080/01638539609544975>
- McNamara, D. S., Floyd, R. G., Best, R., & Louwse, M. (2004). World Knowledge Driving Young Readers' Comprehension Difficulties. In *Proceedings of the 6th International Conference on Learning Sciences* (pp. 326-333). International Society of the Learning Sciences.
- McTavish, M. (2008). What Were You Thinking? The Use of Metacognitive Strategy during Engagement with Reading Narrative and Informational Genres. *Canadian Journal of Education, 31*, 405-430.
- Meyer, B. J. F., & Freedle, R. O. (1984). Effects of Discourse Type on Recall. *American Educational Research Journal, 21*, 121-143. <https://doi.org/10.3102/00028312021001121>
- Ouellette, G., & Beers, A. (2010). A Not-So-Simple View of Reading: How Oral Vocabulary and Visual-Word Recognition Complicate the Story. *Reading and Writing: An Interdisciplinary Journal, 23*, 189-208. <https://doi.org/10.1007/s11145-008-9159-1>
- Ozuru, Y., Best, R., Bell, C., Witherspoon, A., & McNamara, D. S. (2007). Influence of Question Format and Text Availability on the Assessment of Expository Text Comprehension. *Cognition and Instruction, 25*, 399-438. <https://doi.org/10.1080/07370000701632371>
- Page, J. L., & Stewart, S. R. (1985). Story Grammar Skills in School-Age Children. *Topics in Language Disorders, 5*, 16-30. <https://doi.org/10.1097/00011363-198503000-00004>

- Perfetti, C. A., Landi, N., & Oakhill, J. (2005). The Acquisition of Reading Comprehension Skill. In M. J. Snowling, & C. Hulme (Eds.), *The Science of Reading: A Handbook* (pp. 227-253). Blackwell. <https://doi.org/10.1002/9780470757642.ch13>
- Pressley, M. (2000). What Should Comprehension Instruction Be the Instruction of? In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of Reading Research: Volume III* (pp. 545-561). Erlbaum.
- Pyle, N., Vasquez, A. C., Lignugaris/Kraft, B., Gillam, S. L., Ray Reutzel, D., Olszewski, A., Segura, H., Hartzheim, D., Laing, W., & Pyle, D. (2017). Effects of Expository Text Structure Interventions on Comprehension: A Meta-Analysis. *Reading Research Quarterly, 52*, 469-501. <https://doi.org/10.1002/rrq.179>
- Rayner, K., & Reichle, E. D. (2010). Models of the Reading Process. *Cognitive Science, 1*, 787-799. <https://doi.org/10.1002/wcs.68>
- Sadoski, M., & Paivio, A. (2007). Toward a Unified Theory of Reading. *Scientific Studies of Reading, 11*, 337-356. <https://doi.org/10.1080/10888430701530714>
- Sanacore, J., & Palumbo, A. (2009). Understanding the Fourth-Grade Slump: Our Point of View. *The Educational Forum, 73*, 67-74. <https://doi.org/10.1080/00131720802539648>
- Singer, H., & Ruddell, R. B. (1970). *Theoretical Models and Processes of Reading*. International Reading Association.
- Stine-Morrow, E. A. L., Gagne, D. D., Morrow, D. G., & Herman DeWall, B. (2004). Age Differences in Rereading. *Memory & Cognition, 32*, 696-710. <https://doi.org/10.3758/BF03195860>
- Sweet, A. P., & Snow, C. E. (2003). *Rethinking Reading Comprehension*. Guilford.
- van den Broek, P., Kendeou, P., Kremer, K., Lynch, J. S., Butler, J., White, M. J., & Lorch, E. P. (2005). Assessment of Comprehension Abilities in Young Children. In S. Stahl, & S. Paris (Eds.), *Children's Reading Comprehension and Assessment* (pp.107-130). Erlbaum.
- Walsh, W. B., & Benz, N. E. (1990). *Tests and Measurement*. Prentice-Hall.
- Wiederholt, L. & Bryant, B. R. (2001). *Gray Oral Reading Test: Gort-4*. PRO-Ed, Inc.
- Wright, T. S., & Cervetti, G. N. (2017). A Systematic Review of the Research on Vocabulary Instruction that Impacts Text Comprehension. *Reading Research Quarterly, 52*, 203-226. <https://doi.org/10.1002/rrq.163>