The Relationship between Readability, Reading Comprehension and Reading Strategies in EFL

Kuterovac, Rahela

Sveučilište J. J. Strossmayera u Osijeku

Filozofski fakultet Osijek

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Abstract

This paper explores the relationship between EFL learners' reading comprehension achievement and reading strategies they employ while reading two texts of different readability. The first part of the paper brings the theoretical background of reading comprehension, readability and reading strategies followed by an overview of previous research on the topic. The present study was carried out with 76 high school third graders who took two comprehension tests, first of them involving the easier text, and the second one the text difficult to read. Both of them were accompanied by a questionnaire on their reading strategy use. Additionaly, 5 learners were interviewed on their use of strategies. The results show that their performance on the first test was better, but there was no significant difference between reading strategies they used while reading the texts of different difficulty levels. Although different factors could influence the results, they show that it is important to raise learners' awareness of different reading strategies.

Key words: readability, reading comprehension, reading strategies

Sažetak

Ovaj rad istražuje odnos između uspjeha učenika engleskog kao stranog jezika na testu razumijevanja čitanjem i strategija čitanja koje koriste dok čitaju dva teksta različite čitljivosti. Prvi dio rada donosi teorijsku podlogu razumijevanja čitanjem, čitljivosti i strategija čitanja praćenu pregledom prijašnjih istraživanja na tu temu. Istraživanje je provedeno sa 76 učenika trećeg razreda srednje škole koji su rješavali dva testa razumijevanja čitanjem. Prvi od njih je uključivao lakši tekst, drugi je uključivao tekst teži za čitanje, a oba su bila praćena upitnikom o korištenju strategija čitanja. Dodatno je s 5 učenika proveden intervju o strategijama čitanja koje su koristili. Rezultati pokazuju da je učinak na prvom testu bio bolji, ali nije bilo značajne razlike između strategija čitanja koje su koristili dok su čitali tekstove različite težine. Iako su različiti faktori mogli utjecati na rezultate, oni pokazuju da je važno osvještavati učenike o postojanju raznih strategija čitanja.

Ključne riječi: čitljivost, razumijevanje čitanjem, strategije čitanja

Contents

1. Introduction

This diploma paper consists of two parts. The first part is a theoretical background of reading comprehension, readability and reading strategies in which the definitions of all three terms are given. Comprehension difficulties and different readability formulas are also explained, as well as reading strategies classifications. Finally, an overview of previous research on readability, reading comprehension and reading strategies relevant for the present study is given.

The second part describes the present study which explores the relationship between EFL learners' reading comprehension results and strategies they use while reading the texts of different readability. The focus is on comparison of their performance on the easier text and their achievement on the more difficult text, as well as the strategies they used to comprehend both texts. The hypothesis is that learners achieve better results when reading the easier text and that they use less strategies to understand it, compared to the more difficult text. It is also assumed that successful comprehenders use more strategies than those who achieve worse results on comprehension tests. The results and different factors that could influence them are thoroughly explained and suggestions for further research and teaching implications are given at the end.

2. Theoretical background

2.1. Reading in a foreign language

Reading is one of the four basic skills in foreign language learning. Although all skills are equally important for a learner to become successful in a foreign language, as one of the receptive skills, reading makes up the basis for language input. It is the reason why a great deal of research has focused on the questions what reading actually is and what happens when we read.

Alderson and Banerjee (2002:84) define it as "an interaction between a reader with all that the reader brings with him/her – background knowledge, affect, reading purpose, intelligence, first language abilities and more – and the text, whose characteristics include topic, genre, structure, language (organisation, syntax, vocabulary, cohesion)." Their definition indicates that reading is a lot more than just letter and word identification and that there are many elements involved in this complex process.

Godman (1967) is one of the first researchers who notes that reading is a psycholinguistic guessing game in which a reader is actively engaged in the process of trying to reconstruct the author's message. According to his model, the reader samples the text for graphic clues, predicts the meaning, confirms his assumptions and corrects them if necessary.

Dallmann et al. (1978:196) agree that word recognition is only "a tool for reading" and that reading necessarily involves "getting meaning from what is being perceived in writing." It is clear that comprehension is the central aspect of reading and the process of gathering the meaning of a particular text is influenced by many different factors explored by a lot of researchers.

Grabe (1991) presented a model of six components of the reading process:

- automatic recognition skills
- vocabulary and structural knowledge
- formal discourse structure knowledge
- content/world background knowledge
- synthesis and evaluation skills
- metacognitive knowledge and skills monitoring

Furthermore, as shown in Figure 1, Coady (1979:7) states that the reading process consists of three factors that are in interaction: higher-level conceptual abilities, background knowledge and process strategies. The result of their more or less successful interaction is comprehension. He puts special emphasis on process strategies such as syllable-morpheme and syntactic information, lexical and contextual meaning, cognitive strategies, etc., which he calls "paths to comprehension".

Figure 1: Three factors of reading process (Coady, 1979:7)

Similarly, Alderson (2000:3) notes that during the process of reading "not only is the reader looking at print, deciphering the marks on the page… [but he] is presumably also 'thinking' about what he is reading… reflecting on the difficulties or ease he is experiencing when reading…" Moreover, he presents the bottom-up and the top-down processing as two different approaches that readers may take. Bottom-up approaches would be the models "where the reader begins with the printed word, recognizes graphic stimuli, decodes them to sound, recognizes words and decodes them to meaning" (Alderson, 2000:16). On the other hand, top-down processes emphasize the importance of the reader's previous knowledge and expectations he brings to the text. However, a more adequate explanation of the reading process is given by interactive models that advocate a combination of both processes and therefore it is advisable to use them both in order to be successful in reading. Besides examining what a reader does while reading, Alderson (2000) also offers an alternative approach to exploring the reading process and that is the product or result of reading. According to that theory, it is not important how you reach an understanding, but rather what understanding you reach.

All of these above mentioned factors are important in both first-language and second or foreign language reading. However, one other element is of great importance in second language reading explored by Coady (1979:9): "success in reading a second language is directly related to the degree of proficiency in that language." Alderson (2000) agrees that knowledge of the second language is even more important than reading abilities in the first language. In his view, there is a "language threshold" that each second language reader has to reach before the first language

reading abilities are able to transfer. It still does not mean that poor second language reading is completely due to the lack of knowledge of that language, but proves that difficulties in second language reading could also be considered a linguistic problem and not only a reading problem. Phakiti (2006:54) further explains that reading in a second language involves the reader's interlanguage competence (e.g. incomplete linguistic, strategic, discourse and sociolinguistic competence) besides his personal characteristics and external factors.

2.2. Reading comprehension

2.2.1. Definition

Woolley (2011:15) defines reading comprehension as "a flexible and ongoing cognitive and constructive process... of making meaning from text." In other words, it is reading for understanding. As many above mentioned researchers, he stresses the fact that the ultimate goal is to understand the text as a whole rather than to obtain the meaning of isolated words or sentences.

Anderson and Pearson (2002:255) focus on the influence of background knowledge already stored in our memory and claim that "to say that one has comprehended a text is to say that she has found a mental "home" for the information in the text, or else that she has modified an existing mental home in order to accommodate that new information." In the same way Munby (1979) discusses the importance of prior knowledge and experience that a reader relates to the meaning of the text and adds that he has to be able to understand both literal and implied meanings. These two aspects of meaning are called the levels of understanding by Gray (1960, cited in Alderson, 2000) who makes distinction between three levels: reading 'the lines', reading 'between the lines' and reading 'beyond the lines'. Correspondingly, Dallmann et al. (1978) present a model of the following three levels: the factual, the interpretative or inferential, and evaluative or critical level. The first refers to understanding the literal or actual meaning, the second to the meaning that is not expressed, but can be inferred, and comprehension on the critical level or reading 'beyond the lines' implies the reader's judgment about the text and the author, critical analysis of information presented in the text and relating them to his own experiences and opinions. In addition to that, Alderson (2000) claims that these levels are ordered from easiest to hardest meaning that readers first have to be able to understand literal meanings in order to understand implied meanings before engaging in critical evaluation of the text.

Besides the levels of understanding, Dallmann et al. (1978:196) discriminate between the different degrees of comprehension. In their view, it can range from no meaning to complete understanding of the selected text and it depends "not only on the difficulty of the material, on the physical condition of the reader, and on his skill in reading but also on his purpose." For instance, he can thoroughly read the operating instructions for a device because he needs to perform what is written or, on the other hand, he can scan the newspaper article quickly just to get the general idea of what happened. His reading success will therefore be a result of his ability to alter the degree of reading according to his goal.

From all this we can conclude that reading comprehension is extremely complex and it is difficult to define all of its elements. Blachowicz and Ogle (2001) see it as a constructive, socially constructed, skillful, strategic, self-monitored and self-regulated process. This shows that a lot of cognitive and metacognitive processes occur simultaneously in our mind while reading which makes it even more interesting to explore.

2.2.2. Comprehension difficulties

Dallmann et al. (1978) address various causes of difficulties in comprehension. Some of those causes are within the reader, some are the result of outside factors, and the others might be a consequence of inappropriate teacher guidance. One of the first and most obvious causes is the difficulty of reading material which goes beyond the level of the reader. Closely related to it is limited intelligence of the reader which prevents him to read materials that he is mentally not able to process. However, if someone fails to comprehend the text successfully, it does not have to mean that the text was too difficult for him, but might be an indicator that he failed to adjust his reading skills and techniques to the purpose and type of the material. Lack of background knowledge, experience as well as linguistic knowledge are also limitations to comprehension, especially lack of knowledge of the words and concepts and unawareness of more meanings that one word can have. Comprehension can also be obstructed by diverse environmental factors such as noise or inadequate lighting or temperature. However, it has been established that the reader's interest in what he is reading is "one of the determinants of the effects of potential distractors (Dallmann et al. 1978:205). So if the text is interesting enough for the reader, he will not be distracted by anything in his surroundings. Finally, Dallmann et al. (1978) suggest some factors that emerge as a result of ineffective teaching methods. One of them is overemphasis on word recognition which does not encourage readers to move rapidly through the text in order to

understand it as a whole. Such readers concentrate on individual words whose meanings they do not know and become frustrated over the seemingly difficult text. Another thing that can be overemphasized by the teacher is oral reading. On the one hand, it can help the reader to concentrate and understand the text better, but on the other hand, most readers concentrate, in that case, on the audience and on the fact how they are reading, rather than on what they are reading.

Another explanation of the causes of difficulties in comprehension is offered by Woolley (2011). As can be seen in Figure 2, he considers them a cyclic process in which the elements repeat regularly over time and cause immense problems not only in reading, but also generally in language learning. If the reader has a low reading self-concept, i.e. he has a perception of being unsuccessful in reading, he will presumably feel anxious when confronted with the reading task. That may lead him to the inappropriate use of strategies that could help him overcome the difficulties or prevent him from using them at all. Since he has already experienced reading failure in previous tasks, he will certainly have low expectations from himself. Consequently, he will avoid reading which will lead to poor vocabulary development and deterioration of reading skills. When he compares himself to other students in the classroom, he will get less rewards from the teacher which will lead him again to being unsure about his reading abilities.

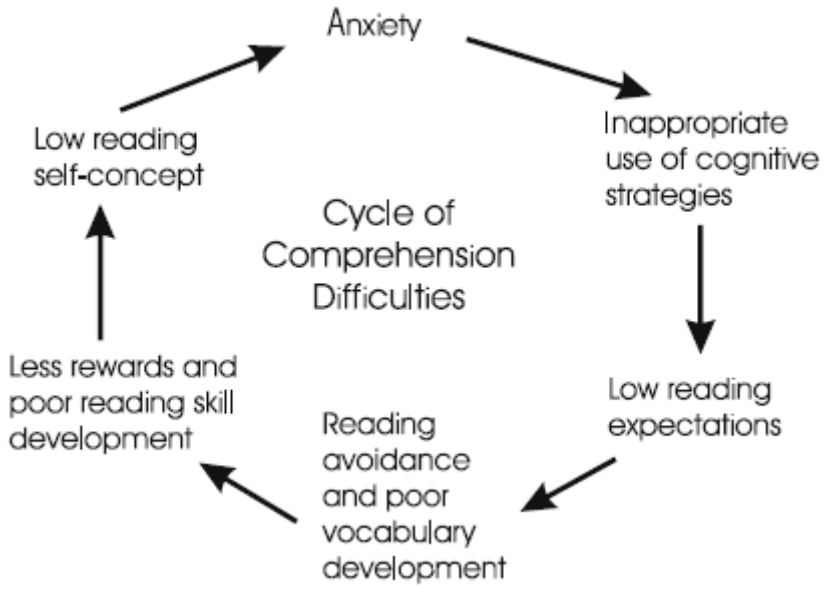

Figure 2: The cycle of comprehension difficulties (Woolley, 2011:30)

It is very important, especially for teachers, to understand the nature of comprehension difficulties in order to notice the problems their students cope with, make them aware of the

problems they maybe do not see, provide appropriate instruction and motivate them to improve their reading skills.

2.3. Readability

2.3.1. Definition

There is a long history of research on concepts of the analysis of a text and one of the most important concepts is readability. Researchers often refer to it simply as text difficulty (Alderson, 2000). However, Smith (2000:191) defines it as "the various aspects of a text that are likely to make it easy or difficult for a reader to understand and enjoy." He implies that the level of difficulty of a written text is the result of a combination of different factors. One of those factors is mentioned by Klare (1963, cited in DuBay 2004:3) who explains readability as "'the ease of understanding or comprehension to the style of writing."

Gray and Leary (1935) tried to identify more elements that influence readability. The results of their research on what makes a book readable, presented in Figure 3, show that the factors affecting readability are as follows: content (propositions, organization, coherence), style (semantic and syntactic elements), structure (chapters, headings, navigation), and design (typography, format, illustrations).

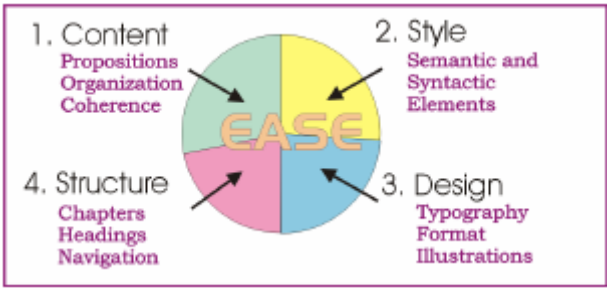

Figure 3: Four basic elements of reading ease (DuBay, 2004:18)

DuBay (2007) notes that there are two contributors to readability, the reader and the text. Furthermore, he tries to include features of both of them in one definition: "readability is the ease of reading created by the choice of content, style, design, and organization that fit the prior knowledge, reading skill, interest, and motivation of the audience" (DuBay, 2007:6).

Alderson (2000), on the other hand, lists some factors affecting text difficulty separated from readability: topic, syntactic complexity, cohesion, coherence, and vocabulary.

2.3.2. Readability formulas

Researchers have made many attempts to create different formulas for measuring readability which are defined by Crossley et al. (2011:87) as „simple algorithms that measure text readability based on sentence length and word length". The main theoretical premise behind those two factors is „the principle that longer words are less frequent in the language and thus less familiar to readers" (Smith, 2000:191). This means that the text filled with more of these words will be less readable.

DuBay (2004) brings an overview of a number of different readability formulas. Their history begins in the 1920s when researchers got an idea how to predict the difficulty of a text and developed the first readability formulas. However, the first notable formulas were not published until the 1940s.

One of the first reliable and widely used formulas was developed by the Austrian refugee Rudolf Flesch in 1948 (Dubay 2004). Alderson (2000) brings his Reading Ease formula as follows:

$$RE = 206.835 – (0.846 \times NSYLL) – (1.015 \times W/S)$$

where NSYLL means the average number of syllables per 100 words and W/S is the average number of words per sentence. These two elements define readability on a scale from 1 to 100, as shown in Table 1.

Table 1: Flesch Reading Ease scale (DuBay 2004)

FRE score	Description
90 – 100	Very easy
80 – 89	Easy
70 – 79	Fairly easy
60- 69	Standard
50 – 59	Fairly difficult
30 – 49	Difficult
0 – 29	Very confusing

Since this formula is considered one of the most accurate, it was used to measure readability in the present study.

In 1976 this formula was modified for the purpose of the U.S. military. The new formula was called the Flesch-Kincaid Grade Level and based on the same two elements. Kincaid et al. (1975) report it as follows:

Flesch-Kincaid Grade Level = (0.39 x words/ sentence) + (11.8 x syllables/ word) - 15.59

Another formula was developed in 1948 by Dalle and Chall in order to improve the Flesch Reading Ease formula. The variables in their formula were sentence length and a percentage of difficult words that were not found on their list of 3000 easy words – the list they comprised for the purpose of measuring readability (DuBay 2004).
One more formula that is commonly used today is Gunning's FOG formula developed in 1952. His formula was also based on two variables: the average number of words per sentence and the percentage of polysyllabic words, i.e. words of three or more syllables (Smith, 2000).

Further research in this area was made by Edward Fry. He used the same variables as researchers before him, the average number of sentences per 100-word passage and the average number of syllables per 100-word sample. However, he did not present them in form of a formula, but in form of a graph which was a completely new way of representing readability (DuBay, 2004).

Besides all these formulas, McLaughlin (1969:639) presents his SMOG formula which he considers „laughably simple...and more valid than other formulas." He followed Gunning's idea of counting polysyllabic words, but did not agree with previous researchers' method of adding the sentence and word length. In his view, the two variables should be multiplied this way:

SMOG grade = 3 + square root of polysyllable count.

The last readability formula that will be presented in this paper is the FORECAST formula. It was a result of the research made by Caylor et al. in 1973 that was requested by the U.S. military. Their formula is based on counting monosyllabic words in a 150 words sample. What is also important to emphasize is that this formula was designed to assess the adult reading materials, not those intended for primary age readers (DuBay, 2004).

All of the above mentioned formulas proved to be pretty effective in measuring readability and are used in areas such as politics, medicine, journalism, legislation and textbook publishing, however, Klare (1969, cited in DuBay, 2004:19) warned that „formula scores are better thought of as rough guides than as highly accurate values. Used as rough guides, however, scores derived from readability formulas provide quick, easy help in the analysis and placement of educational material."

2.3.3. Readability in EFL

One of the greatest problems of readability formulas is the fact that researches developed and tested them only in the first language context with native-speaking readers of English. Therefore, an attempt to adapt them to the second language context was made by Brown (1997). In order to create a readability index suitable for non-native speakers, he conducted a study with Japanese learners of English who participated in different cloze tests. Some of the most popular readability formulas were used in his research, but he also created his own four variables that could affect readability of chosen passages. The results showed that those four variables were more successful in predicting the difficulty of a text than the usual formulas. Nevertheless, he emphasized that his readability index was effective only for Japanese learners and that it should be modified for the learners of other language backgrounds.

However, even though there is little research on the use of readability formulas in a foreign language, they found application in textbook publishing and language testing. Textbook publishers consider them one of the most important factors when selecting texts for learners. Alderson (2000:73) adds that "test developers… need to consider the readability of the texts used for testing comprehension, and should only use texts that are appropriate in difficulty for the population being tested." As a result of this, the simplistic approach has developed, which advocates simplification and transformation of the texts intended for the learners of English as a foreign language. Alderson (2000), however, also emphasizes that it is not always the best idea to change authentic texts in order to simplify them since that way they could be made even more difficult to process.

2.4. Reading strategies

2.4.1. Definition

It has already been established that the process of constructing the meaning from text is very complex and Grabe (1991:382) states that it does not only involve "recognizing patterns of structure and organization" but also "using appropriate strategies to achieve specific goals." Karbalaei (2010) adds that this process does not occur automatically, which means that the reader must purposefully invoke strategies that will help him process the text.

O'Malley and Chamot (1990:1) give the definition of learning strategies in general which can also be used to describe reading strategies as "the special thoughts or behaviors that individuals

use to help them comprehend, learn or retain new information." Carrell (1998) takes a closer look at reading strategies and defines them as the actions that readers actively select and control to achieve desired goals or objectives. This is further reinforced by Garner (1987:50) who explains that they are „generally deliberate, planful activities undertaken by active learners, many times to remedy perceived cognitive failure."

All of these researchers agree that reading strategies are intentional, purposeful and willful acts which means that the reader has to be aware of them. Mokhtari and Sheorey (2002) are of the opinion that it is that awareness that distinguishes the skilled from unskilled readers. Taking this into account, we can conclude that unsuccessful readers could improve their reading abilities by increasing awareness of various strategies they could use to enhance comprehension. However, it is also important to learn when and how to use them while reading. The essential role in that process have the teachers who should guide and instruct their learners on how to become more successful in reading comprehension.

2.4.2. Classifications of reading strategies

One of the most popular classifications of language learning strategies was developed by Oxford in 1990. She divided them into two classes, direct and indirect strategies that include six main subcategories, namely: memory, cognitive, compensation, metacognitive, affective and social strategies. Although her classification refers to language learning strategies in general, it can also be easily applied to reading. She even designates those that are useful for reading, for example: using imagery, using keywords, taking notes, summarizing, organizing, self-monitoring, etc.

O'Maley and Chamot (1990) made another classification of language learning strategies. Their taxonomy is based on three groups: metacognitive, cognitive, and social-affective strategies. There is also a set of subcategories under each of these main groups.

Pressley (2002) categorized them in terms of 3 stages of reading strategy use: before, during and after-reading strategies. According to his theory, a good reader will set goals before reading, skim the text in advance, activate prior knowledge and make hypotheses about the text. During reading he will look for important information, reread some parts of the text, reflect on presented ideas, paraphrase or make notes, integrate ideas, etc. After reading he will reflect on what he has just read, construct a summary of the text, check his understanding or reread the text.

Finally, Mokhtari and Sheorey (2002) classified reading strategies into three main categories: global, problem solving and support reading strategies. Each of them consists of a range of strategies shown in Table 2.

Global Strategies are defined as "intentional, carefully planned techniques by which learners monitor or manage their reading such as having a purpose in mind, previewing the text as to its length and organization or using typographical aids and tables and figures." (Mokhtari and Sheorey, 2002:4) There are 13 items belonging to this category (Table 2).

Problem Solving Strategies are used when working directly with the text. They are "localized, focused techniques used when problems develop in understanding textual information" (Mokhtary and Sheorey, 2002:4). The group consist of 8 items (Table 2).

The last category consists of Support Reading Strategies defined as basic support mechanisms such as using the dictionary or underlining information. A total of 9 items makes up this group of strategies.

Table 2: Three categories of reading strategies (Mokhtari and Sheorey, 2002)

Categories	**Strategies**
Global Reading Strategies	1. Having a purpose in mind
	2. Relating information to prior knowledge
	3. Taking an overall view of the text to see the content
	4. Relating the content to reading purpose
	5. Previewing the text to note its length and organization
	6. Deciding what to read closely and what to ignore
	7. Using tables, figures and pictures in the text
	8. Using context clues
	9. Using typographical features to identify key information
	10. Critical analysis of information
	11. Checking understanding of new information
	12. Guessing the content of the text
	13. Checking if the guesses are right or wrong

Problem Solving Strategies	1. Reading slowly and carefully
	2. Getting back on track when losing concentration
	3. Adjusting reading speed
	4. Paying closer attention to difficult parts
	5. Stopping from time to time to think about the text
	6. Visualization of information
	7. Rereading difficult parts
	8. Guessing the meaning of unknown vocabulary
	9. Translating from English into the native language
Support Reading Strategies	1. Taking notes
	2. Reading aloud
	3. Underlining or circling information
	4. Using reference materials
	5. Paraphrasing
	6. Going back and forth in text to find relationship among ideas
	7. Asking questions
	8. Thinking in both English and the mother tongue

Since their categorization is intended for school related and academic materials, it will be used in the present study. One more reason for using exactly their classification is the fact that they designed a questionnaire to assess the EFL learners' use of those strategies called the Survey of Reading Strategies or simply SORS (Mokhtari and Sheorey, 2002).

2.5. Previous research on readability, reading comprehension and reading strategies

2.5.1. International research

As mentioned before, previous research on readability is concentrated mainly on development of different readability formulas and the choice of readable texts for various textbooks. Some researchers used those formulas to measure readability of EFL textbook passages (Owu-Ewie, 2014) and related them to students' background knowledge and interest (Tabatabaei and Bagheri, 2013). The main goal of their studies was to investigate whether the difficulty of textbook passages is above the students' age level and propose how the writing of EFL textbooks could be improved.

More studies deal with the relationship of reading achievement and the use of reading strategies. One of them is Anderson (1991) who explored individual differences in strategy use in second language reading and testing and found that the effective use of reading strategies was in correlation with successful reading comprehension. The same issue was investigated by Salataci and Akyel (2002) whose study showed that reading strategy instruction enhances the actual use of strategies which leads to more success in reading comprehension. Phakiti (2006) also tried to establish whether metacognitive and cognitive strategy use has a direct impact on second language reading and whether there is a relationship between those two groups of strategies. His findings reveal that comprehending strategies directly influence EFL reading and that the strategies interact with each other. This was corroborated by Ling (2011) who conducted the research on the relationship between Chinese English Majors' use of metacognitive and cognitive strategies and their reading achievement. He found that both of those groups of strategies play an important role in reading comprehension and that successful readers use more strategies when reading.

On the other hand, there is little research that brings readability and reading strategies into connection. Feng and Mokhtari (1998) touched upon the surface of this issue when they examined the strategies used by native speakers of Chinese while reading easy and difficult texts in English and Chinese. Their primary goal was to see whether there is a difference in strategy use between the two languages, but they also reported that it generally increased when the participants read difficult passages in English. However, some limitations of their study have to be considered: it was carried out with only 20 participants of the average age of 35 years and they were all very well educated and proficient in English. Therefore, there is a question whether the results would be the same with EFL learners of different proficiency levels who are still being taught in classrooms. Furthermore, the method of data collection in this study was think-aloud protocol which can provide very useful information, but on the other hand, it can also be deficient if the sample is not trained enough to participate.

2.5.2. Research in Croatia

Research on reading in Croatia is concentrated mainly on the first language, but has similar findings to those conducted in other countries in EFL context.

Kolić-Vehovec et al. (2011) investigated the role of reading strategies in scientific text comprehension and academic achievement and found that good comprehenders use more strategies than poor comprehenders. Although they tested them on the use of only three strategies, it turned out that two of them, namely summarizing and the use of elaborations predicted successful comprehension.

Kolić-Vehovec et al. (2014) corroborated the fact that metacognitive knowledge of reading strategies improves reading comprehension performance. They also took into account the gender of participants and found that girls constantly demonstrated better metacognitive knowledge than boys.

3. The present study

3.1. Aims and Research Questions

The aim of the present study is to establish whether there is a relationship between EFL learners' reading comprehension performance and reading strategies they employ while reading two texts of different readability. The research questions it tries to answer are:

> Is there a relationship between readability and reading comprehension?
> Is there a relationship between readability and the choice of EFL learners' reading strategies?
> Is there a relationship between the use of strategies and the reading test performance?

The hypothesis is that learners are better in comprehending the text that is easy to read and that they use less reading strategies to understand it. Based on the previous research (Alderson 1991, Salataci and Akyel 2002, Phakiti 2006) it can also be assumed that successful readers, i.e. those who achieve better scores on a reading test will use more reading strategies.

3.2. Participants

In order to find the answers to the research questions, the study was conducted in two parts. The participants of the first part were 76 third grade high school students from the Grammar School "Matija Mesić" in Slavonski Brod. There were 69.7% females and 30.3% males from four classes. The majority of them had been learning English as a foreign language for 11 years. The second part of this research was conducted with another 5 third-graders who did not participate in the first part. Two of them were male and three female learners.

3.3. Instruments

Two texts were selected for the study. The first text was taken from the book Matura Practice Tests (Appendix 1) and the second from the English textbook Cutting Edge (Appendix 2). Each of them was accompanied by 9 multiple-choice questions to test the learners' reading comprehension. The instrument used to test readability of the two texts was the Flesch Reading Ease test conducted online on the page Readability Score (https://readability-score.com/). The first text's readability was 74.8 which means 'fairly easy to read' and the second one had readability of 58.7 meaning 'fairly difficult to read'.

The Survey of Reading Strategies Questionnaire (SORS) developed by Mokhtari and Sheorey (2002) was used to establish which reading strategies were used by the learners while reading the two texts. However, the original questionnaire was adapted for the purpose of this study (Appendix 3). The statements 1 (*I have a purpose in mind when I read*) and 6 *(I think about whether the content of the text fits my reading purpose*) were dropped because the purpose of reading was set by the research study and already known to the students. Furthermore, the statements 15 (*I use tables, figures, and pictures in text to increase my understanding*) and 20 (*I use typographical features like bold face and italics to identify key information*) were also omitted because the texts the learners got did not have such features. At the end, there were 26 statements in total, 9 of them referring to Global, 9 to Support and 8 to Problem Solving strategies. All statements were shifted to the past simple tense because it was very important that students report only those strategies that they used while reading these particular texts and not those they usually use when reading. Since the original questionnaire measured the overall frequency of strategies used, i.e. the learners' habits, the questionnaire's scale was reduced to 3 points since it measured strategies used in that particular moment when they read the text. One more element that goes in favor of this change is the length of the texts – both of them were too short to measure the frequency of usage. The questionnaire was translated to Croatian and the process of back-translation was done to make sure that it is appropriate for Croatian EFL learners. Besides the 26 statements, it also contained a part where the learners were asked about their gender, English grade, and the length of learning English as a foreign language. As determined by Cronbach's alpha, the reliability coefficient of the questionnaire for both tests (.85) implies that it is a reasonably reliable source of learners' reading strategy usage. The reliability coefficient for each subscale can be seen in the following table:

Table 3: Subscales of reading strategies with their reliability coefficients

Subscale	No. of items	Items	Alpha
Global	9	2, 3, 6, 10, 14, 17, 19, 20, 23	.73
Problem Solving	9	5, 7, 9, 12, 13, 16, 21, 24, 25	.77
Support	8	1, 4, 8, 11, 15, 18, 22, 26	.68
Total	26		.85

While the adapted SORS was used to measure the use of strategies in the first part of the research, a semi-structured interview was used to explore the strategies used by 5 learners who

participated in the second part. It consisted of questions based on the strategies mentioned in the SORS and its purpose was to find out more details about the strategies they used while reading the same two texts.

3.4. Procedure

As mentioned before, the study consisted of two parts. In the first part 76 learners were asked to take the reading comprehension tests and the questionnaire. The two tests were conducted on two days in a row. The learners were first tested on the easier text and the day after they got the more difficult text. After each of them, they were asked to fill in the questionnaire in which they had to circle the number for each statement to indicate the extent of their agreement with it. The learners took a maximum of 25 minutes to complete both the reading comprehension test and the questionnaire. The statistical data analysis was conducted in the program SPSS.

The second part of the study was conducted after the results of the first part were analyzed. Since in the first part the learners took both tests in just two days and there was no bigger time gap between the tests, it was assumed that on the second day they could remember how they completed the questionnaire for the first text and there was a possibility that they reported the same strategies again. In order to establish whether a bigger time span could influence the results, another 5 learners were asked to take the same two tests, but there was an interval of two months between them. Instead of completing a questionnaire, an interview was conducted with each of them individually after both tests to elicit more details about the reading strategies they used. They were also asked to compare the two texts and comment on their difficulty. Based on their answers, a list of reading strategies was comprised and a comparison of strategies used in the first and in the second text was made.

3.5. Results

3.5.1. Results of the first part

Both reading comprehension tests had a total score of 9 points. The minimum achieved score on the first test was 3 and on the second test 1 point, while the maximum of 9 points was scored on both tests.

In order to compare the results of the two tests and reading strategies reported in two questionnaires a Paired Samples t-test was conducted. The results (Table 4) show that there is a statistically significant difference between the scores of the first and the second comprehension test. When we compare the two mean scores (M-test1=7.00; M-test2=5.51), it can be seen that higher mean was achieved in the first test. It is also more visible in a graphic representation in Figure 4. That means that the first text, that was easier according to readability formula, was really easier for the learners since they achieved better results. On the other hand, their score on the second test indicates that it was more difficult for them, just as it was predicted by the readability formula. Not surprisingly, the first assumption that the text with lower readability score is easier for the learners to comprehend proved to be right.

Table 4: The results of reading comprehension tests and overall reading strategies usage

	N	Mean	SD	t	df	Sig.(2-tailed)
Text 1 – Total score	76	7.00	1.57	7.172	75	.000
Text 2 – Total score	76	5.51	1.86			
Strategy use – Text 1	76	2.00	.27	.501	75	.618
Strategy use – Text 2	76	1.99	.29			

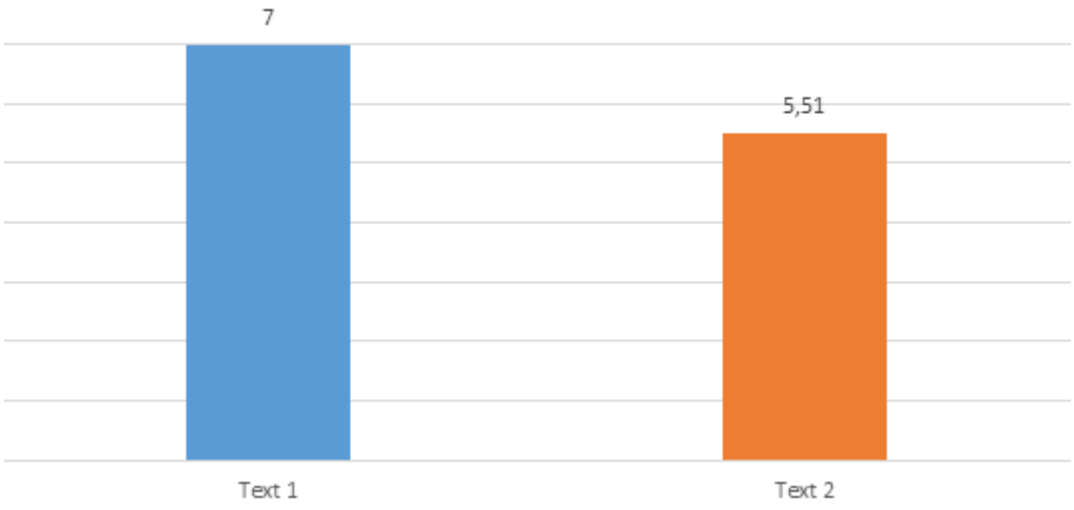

Figure 4: Mean results of reading comprehension tests

However, as can be seen in Table 4, the results show that there is no significant difference between the usage of reading strategies in the first and the second test. The mean scores for the

first text (M=2.00) and the second text (M=1.99) are almost the same, which is visually represented in Figure 5. It indicates that the level of difficulty of a text does not affect the number of reading strategies the learners employ.

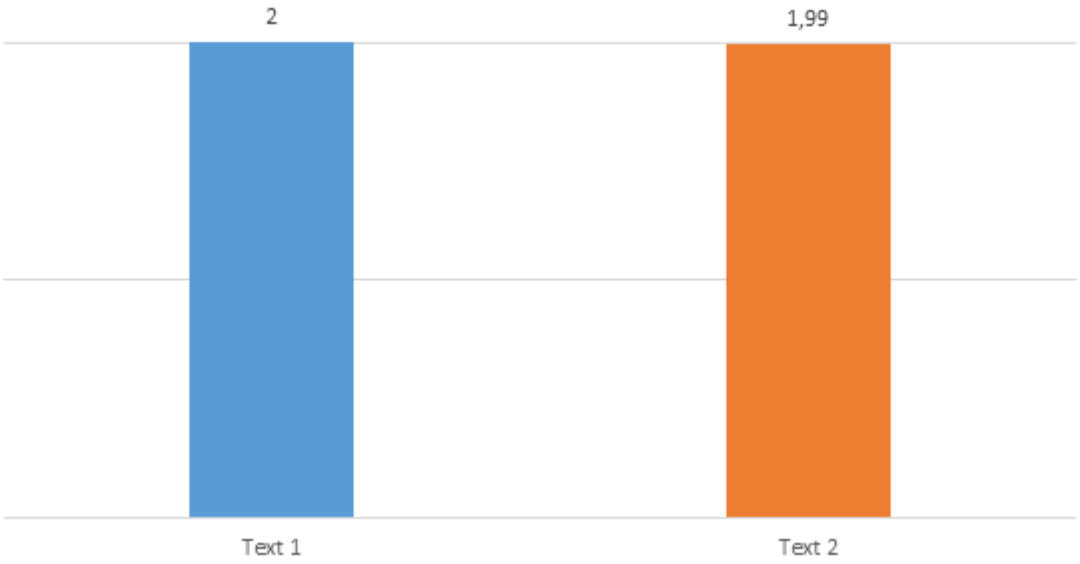

Figure 5: Mean results of the learners' strategy use

Even when we take a closer look at different groups of reading strategies, the results (Table 5) show that there is no significant difference between the strategies used in each particular group in the first and the second test. It means that the learners used Global, Support and Problem Solving Strategies to the same extent in both tests.

Table 5: Comparison of 3 categories of reading strategies

	N	Mean	SD	t	df	Sig.(2-tailed)
Global Strategies – Text1	76	1.78	.30	-.133	75	.895
Global Strategies – Text 2	76	1.78	.36			
Support Strategies – Text 1	76	1.88	.34	-.625	75	.534
Support Strategies – Text 2	76	1.90	.37			
Problem Solving Strategies – Text 1	76	2.38	.38	1.378	75	.172
Problem Solving Strategies – Text 2	76	2.32	.44			

A comparison was made between individual strategies within each group of strategies, too. Tables 6, 7 and 8 show that majority of them showed no significant difference between the use of strategies in the first and the second text. Only two of them, namely *using context clues* which is a part of the Global Strategies group and *visualization of information* that belongs to the Problem Solving Strategies have the value of significance less than .01 meaning that the difference between using them in the first and the second text is statistically significant. If we observe their mean scores *(using context clues*: M1=2.59, M2=2.34; *visualization*: M1=2.41, M2=2.11) we can conclude that both of these strategies were used more in the first text.

Table 6: Comparison of individual strategies within the Global Strategies group

Global Strategies		Mean	SD	t	df	Sig.
Relating information to prior knowledge	Text 1	2.33	.76	-1.418	75	.160
	Text 2	2.47	.70			
Previewing the content of the text	Text 1	1.82	.90	.563	75	.575
	Text 2	1.76	.91			
Previewing the text to note its length and organization	Text 1	1.29	.56	-1.984	75	.051
	Text 2	1.45	.76			
Deciding what to read closely and what to ignore	Text 1	1.80	.86	1.395	75	.167
	Text 2	1.67	.76			
Using context clues	Text 1	2.59	.68	3.225	75	.002**
	Text 2	2.34	.74			
Critical analysis of information	Text 1	1.64	.76	-1.415	75	.161
	Text 2	1.76	.67			
Checking understanding of new information	Text 1	2.12	.75	-.145	75	.885
	Text 2	2.13	.81			
Guessing the content of the text	Text 1	1.83	.89	-.867	75	.389
	Text 2	1.92	.83			
Checking if the guesses are right or wrong	Text 1	1.54	.79	-.800	75	.426
	Text 2	1.62	.73			

**p<.01

Table 7: Comparison of individual strategies within the Problem Solving Strategies group

Problem Solving Strategies		Mean	SD	t	df	Sig.
Reading slowly and carefully	Text 1	2.70	.63	.928	75	.357
	Text 2	2.63	.63			
Getting back on track when losing concentration	Text 1	2.57	.72	1.521	75	.133
	Text 2	2.43	.72			
Adjusting reading speed	Text 1	2.49	.68	.155	75	.877
	Text 2	2.47	.74			
Paying closer attention to difficult parts	Text 1	2.53	.72	.276	75	.784
	Text 2	2.50	.68			
Stopping from time to time to think about the text	Text 1	2.14	.81	.354	75	.724
	Text 2	2.11	.84			
Visualization of information	Text 1	2.41	.75	3.524	75	.001**
	Text 2	2.11	.78			
Rereading difficult parts	Text 1	2.29	.83	.388	75	.699
	Text 2	2.25	.80			
Guessing the meaning of unknown vocabulary	Text 1	1.91	.85	-1.521	75	.133
	Text 2	2.40	.82			
Translating from English into the native language	Text 1	2.13	.88	1.304	75	.196
	Text 2	2.03	.91			

**p<.01

Table 8: Comparison of individual strategies within the Support Strategies Group

Support Strategies		Mean	SD	t	df	Sig.
Taking notes	Text 1	1.11	.45	.000	75	1.000
	Text 2	1.11	.42			
Reading aloud	Text 1	1.93	.85	.587	75	.559
	Text 2	1.88	.85			
Underlining or circling information	Text 1	1.16	.49	-.844	75	.402
	Text 2	1.22	.58			
Using reference materials	Text 1	1.63	.81	-1.153	75	.252
	Text 2	1.72	.81			

Paraphrasing	Text 1	1.82	.71	-.575	75	.567
	Text 2	1.87	.82			
Going back and forth to find relationship among ideas	Text 1	2.50	.74	1.564	75	.122
	Text 2	2.34	.83			
Asking questions	Text 1	1.42	.74	-1.265	75	.210
	Text 2	1.54	.76			
Thinking in both English and the mother tongue	Text 1	2.32	.84	-.307	75	.760
	Text 2	2.34	.81			

So far we have seen the relationship between readability, reading comprehension and reading strategies. To explore the correlation between the reading comprehension scores and reading strategy use, the Pearson correlation was used. The results (Table 9) show that there is no significant relationship between them either in the first or in the second text. The same was found for the correlation between each category of reading strategies and the reading achievement, as it is shown in Table 10.

Table 9: Pearson Correlation between comprehension scores and strategy use

	Text 1 strategy use	Text 2 strategy use
Text 1 comprehension score	-.066	
Text 2 comprehension score		-.064

Table 10: Pearson Correlation between comprehension scores and reading strategy categories

	Global Strategies	Problem Solving Strategies	Support Strategies
Text 1 comprehension score	-.162	.048	-.043
Text 2 comprehension score	-.070	.066	-.162

Pearson Correlation was also used to test the relationship between individual strategies and reading comprehension scores. Since there are 26 strategies and most of them did not have significant results, we singled out the ones that did have significant correlation with reading comprehension and presented them in Table 11. It shows that *taking notes* is negatively correlated with the reading score in the first text, while *visualization* in the same text is positively

correlated with the reading achievement, both at the 0.01 level. Negative correlation was also found in the second text between the three strategies, namely *using reference materials, guessing the content and translating*, and the learners' test scores. It means, the less they used these three strategies, the better their results. The first two show significance at the 0.01, and the last one at the 0.05 level.

Table 11: Pearson Correlation between comprehension scores and individual strategies

	Taking notes	Visualization	Using reference materials	Guessing the content	Translation
Text 1 comprehension score	-.301**	.270*			
Text 2 comprehension score			-.330**	-.337**	-.269*

3.5.2. Results of the second part

The results of the reading comprehension test conducted with 5 learners in the second part of the study are shown in Table 12. We can see that two of them had fewer points in the second text, one person had a better achievement in the second text, and the remaining two learners had the same results in both texts.

Table 12: The results of reading comprehension test in the second part of the study

	Text 1	Text 2
Learner 1	9	7
Learner 2	5	6
Learner 3	5	5
Learner 4	8	7
Learner 5	9	9

Table 13: Comparison of reading strategies used by 5 learners in two texts

	Learner 1		Learner 2		Learner 3		Learner 4		Learner 5	
Strategy	Text 1	Text 2	Text 1	Text 2	Text 1	Text 2	Text 1	Text 2	Text 1	Text 2
Previewing the length and organization	+	-	+	+	+	+	-	-	-	-
Previewing the content	+	-	-	-	-	-	-	-	-	-
Deciding what to read closely and what to ignore	+	+	+	+	+	+	-	-	-	-
Relating information to prior knowledge and experience	+	+	+	+	-	+	-	-	-	-
Guessing the content	+	+	+	-	-	-	-	-	-	-
Checking for guesses	+	+	-	-	-	-	-	-	-	-
Using context clues	-	-	+	+	+	+	+	+	+	+
Guessing the meaning of unknown words	-	-	-	-	+	-	-	+	-	-
Using the dictionary	+	+	+	+	+	+	+	+	+	+
Rereading the text	+	+	+	+	+	+	+	+	+	+
Paraphrasing	+	+	+	+	+	+	+	+	-	-
Connecting ideas	+	+	+	+	+	+	+	-	+	+
Visualization	+	+	+	+	+	+	+	+	+	+
Taking notes	-	-	-	-	-	-	-	-	-	-
Marking the text	+	+	+	+	+	+	+	+	-	-
Asking questions	+	+	-	-	-	-	-	-	-	-
Reading slowly and carefully	+	+	+	+	+	-	-	-	-	-
Adjusting the speed of reading	+	-	+	+	+	+	+	+	-	+
Stopping from time to time	+	-	+	+	+	+	+	+	-	-
Reading aloud	+	+	+	+	+	+	+	+	-	-
Critical analysis	+	+	+	+	+	-	-	-	-	-
Thinking in the mother tongue	+	+	+	+	+	+	+	+	-	-
Translating	-	+	+	+	+	+	+	+	-	-
TOTAL	19	16	18	17	17	15	12	12	5	6

Table 13 above shows the list of strategies based on the answers the learners gave in the interview conducted after each of the two reading comprehension tests. A plus is put if the learner used that particular strategy, and a minus if he or she did not use it. As can be seen, each learner used almost the same strategies in both tests. In order to investigate the possible differences we will analyze each particular strategy.

No difference was found between the first and the second text in the use of the following strategies: *deciding what to read closely and what to ignore, checking the text for guesses, using context clues, using the dictionary, rereading the text, paraphrasing, visualization, taking notes, marking the text, asking questions, reading aloud,* and *thinking in the mother tongue*. These strategies were used by the learners in both texts or they did not use them either in the first or in the second one.

When it comes to *previewing the text, guessing the content, relating information to prior knowledge, connecting ideas, reading slowly and carefully, stopping from time to time, critical analysis,* and *translating,* there was always only one learner who used one of these strategies in one of the texts, but not in the other one. In most cases, they did not use it in the second text because, as they said, the topic of that text was very interesting to them, and therefore, they wanted to read it quickly without stopping, analyzing the information or trying to guess the content.

There were two strategies which two learners did not use in either text, namely *guessing the meaning of unknown words* and *adjusting the speed of reading*. In most cases the learners used context clues to deal with unknown vocabulary, but when that was impossible, these two learners tried to guess its meaning. The strategy *adjusting the speed of reading* was not used by one learner in the second text because, as she reported, it was too interesting, so she read it at the same speed all the time. On the other hand, another learner did not use it in the first text, but used it in the second one, since he sometimes came across the unusual word order and then had to slow down.

When we analyze the overall strategy use, there were three learners who used slightly fewer strategies in the second text, but the difference is not great. One learner used the same number of strategies in both texts, and the other one used more of them in the second text. To be more precise, learner 1 used 19 out of 23 strategies in the first text, and 16 strategies in the second one. The second learner used 18 strategies in the first, and 17 in the second text. 17 strategies were used by the third learner in the first, and 15 strategies in the second text. Learner 4 used 12

strategies in both texts, while the last learner used 5 of them in the first text, and only one more in the second one. We can conclude that readability did not influence learners' use of strategies which also supports the results found in the first part of the study.

The learners were also asked to compare the difficulty of the two texts. Even though the second text was more difficult according to the readability formula, four learners said it was easier to them because it was a lot more interesting. Only one learner reported that it was harder because the sentences were more complex and he felt that it contained more information and some words that are not used every day.

When we compare their use of strategies and reading comprehension results, we can see that only one learner who used fewer strategies in the more difficult text had worse reading achievement on the reading comprehension test. Two more learners used fewer strategies in the second text, one of them having more points in the same text and the second one having the same result in both texts. The learner who used the same number of strategies in both texts achieved fewer points in the second text and the one who used one more strategy in the second text had perfect results in both texts. From this we can conclude that there is no relationship between their results in comprehension tests and strategy use, just as was established in the first part of the study.

3.6. Discussion

The results of the reading comprehension text confirmed that readability does influence understanding since learners had lower achievement in the more difficult text. It is somehow logical that we have more difficulties when we read something hard compared to reading something easier. However, learners reported in an interview that the second text was easier for them. For example, they said: “This text was a lot more interesting than the first one, it was more understandable.” or “There were less unknown words and it was more interesting. It was easier to translate.” Another learner said: “This topic is a bit more interesting, and when something is interesting I just plunge into it and I concentrate better.” It seems that the topic of the second text had a great impact on learners’ perception of the difficulty of the text. Their answers show that they felt it was easier just because they liked the topic. One of them confusingly said: “It is probably more difficult, but I feel that it is easier.” It is a sign that perhaps the topic of the text was a more important element that indicated the difficulty than readability formula. However, although they considered the second text easier, their results showed that they struggled more

with it than the first text. Therefore, we can conclude that the actual difficulty of the text was different from their feeling.

The topic could also have an impact on learners' use of reading strategies. It has influenced some learners to use fewer reading strategies, for instance, one of them reported that she read faster without stopping and thinking about the text because it was so interesting that she wanted to know what happened next as soon as possible. However, the majority of them used the same strategies in both texts. It indicates that reading strategies are stable and that they do not change according to readability. The reason for that could be found in the definition of reading strategies. More researchers have described them as effortful, willful, intentional, deliberate, planful, and purposeful (Mokhtary and Reichard 2002, Garner 1987). This implies that reading strategies are conscious actions taken deliberately by the learners who do not use those strategies they are not aware of. It explains the fact that they always use the same strategies, no matter how difficult the text is. Even though it was assumed that they will use more strategies to comprehend the second text, that hypothesis was not proved. But, if they had known that there is a range of strategies that could have helped them to understand more difficult texts, they could have used them and their achievement might have been better.

The results have shown that only *using context clues* and *visualization* were used more often when reading the first text. The reason for that could also be found in the topic of the text. Since learners perceived the second text to be easier because of the interesting topic, they automatically used context clues and visualization less to understand it.

The stability of reading strategies was further corroborated in the second part of the study. We can see that learners used some specific strategies in both texts and it seems that they have become a part of their reading personality which is always the same. For example, one of learners always marks parts of the text with numbers, underlines some key facts and uses the dictionary to check the pronunciation of some words. Another one always underlines unknown words. The third one always tries to translate the whole text and never previews the text or takes notes. The fourth one always reads fast and thinks in English while reading. For each of them we can recognize a pattern of strategies they used in both texts.

Another fact that goes in favor of the stability of the strategies is the time span in the second part of the research which also did not influence learners' use of strategies although there were doubts that conducting the tests one day after the other could have played an important role.

It was also assumed in this study that successful readers, i.e. those who achieve betters results on the reading comprehension tests use more reading strategies than unsuccessful readers. However, the results showed that there was no correlation between these two variables. The reason for that could be found in general foreign language proficiency. Feng and Mokhtari (1998:32) suspected that "in an effort to compensate for underlying linguistic and content difficulties, the subjects resort to greater strategy use while reading in the target language." That could be the explanation why poor readers use the same number of strategies as successful readers, but still have worse results.

There are, however, some individual strategies that showed correlation with comprehension results. Negative correlation of *taking notes* and reading comprehension in the first text could be explained in terms of learners' habits and their teacher's teaching style. Since almost no one used this strategy because they are not used to it when doing multiple choice questions, it was expected that their results will be negatively correlated with it. On the other hand, positive correlation of *visualization* and comprehension showed that visualization helped learners to achieve better results. When we consider the fact that the majority of students have visual style of learning, it is not surprising that they used it a lot to enhance comprehension. Negative correlation of comprehension and *using reference materials* and *translating* in the second text is also somehow logical, if we bring it into connection with language proficiency. The fewer unknown words learners found in the text, the less they needed to use the dictionary and that resulted in better comprehension. The same goes for translating: the more they are proficient in English, the less they need to translate the text and their results are better. And finally, negative correlation between *guessing the content* and comprehension is hard to explain but could also be a consequence of the topic of the text.

Except the topic of the text and language proficiency of learners, there are some other factors that could influence the results of this study. Firstly, we are not sure that learners were motivated enough to read both texts and fill in the questionnaire twice. There were some voices of dissatisfaction while completing the second questionnaire which makes us unsure whether their lack of interest could influence the results. We also cannot be sure that they employed all reading strategies they reported using just as we do not know whether they reported those they used. There were some cases where it was visible in the text that they used a certain strategy, for example underlining important information, but they did not report it in the questionnaire. That indicates that they may not be aware of all reading strategies they use and that there is a

difference between the metacognitive awareness of strategies and the actual use of them which is very difficult to measure.

What is also important to mention, learners were not told that one text was more difficult than the other one. Therefore, we are not sure whether they would have a different attitude towards the second text before they even started reading it. If they had been told that it was more difficult than the first one, maybe they would have deliberately used more strategies to deal with it.

All in all, we cannot say that the results of this study are a strong proof that reading strategies are stable. More research has to be done in this area, with different texts and different methods. What is also important and emphasized by the authors of the original questionnaire on reading strategies is the fact that "instructors should consider SORS as only one source of information about students' reading abilities that must be analyzed in conjunction with other measures of reading ability" (Mokhtari and Sheorey, 2002:6). Although an interview was used as a method of collecting data in the second part of the study instead of the questionnaire, it is still not enough to claim that the results are completely reliable, but it is a good starting point for future research.

4. Conclusion

The findings of this study prove that readability does influence reading comprehension. The more difficult the text is, the more problems learners have with understanding. This is corroborated by the fact that the results of reading comprehension tests are consistent with the level of difficulty of a text predicted by Flesch Reading Ease readability formula. However, the research shows that readability does not affect learners' usage of reading strategies which means that their approach to reading is always the same. This is indicative of the importance of explicit strategies training in a language classroom. Since learners use only those strategies they know exist, their teachers should make them aware of a range of other strategies that could help them when reading. However, they should not only tell them what strategies to use, but also explain when and how to apply them.

The study also shows that there is no relationship between learners' use of strategies and their comprehension test performance which is not consistent with previous research. However, we assume that learners who are less proficient in English tried to compensate for their lack of knowledge and used more reading strategies to deal with difficult texts.

This research also recommends further research since there are some factors that could influence the results. It turned out that the topic of the second text was more indicative of the difficulty of the text than readability formula. It is, therefore, advisable to use more different texts to test the hypothesis that readability does influence the choice of reading strategies. It is also recommendable to do an interview with more participants in order to gather more reliable data.

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6. Appendix 1

Read the article about looking after elderly people. For questions (1-9), circle the answer (A, B, C or D) that fits best according to the article.

The old parent crisis

More elderly people and less help from the government mean that more families will have to look after their old parents or grandparents at home. In the past, looking after old people at home was natural. I can still remember my own three-generation home with many children and a very old grandmother. She didn't quite know who she was, but still told us wonderful stories about her Victorian childhood. I didn't realise it then, but of course running such a busy home depended on my mother who didn't go to work. Today the model of family has changed. Is there still a place in it for an old person?

Frances, a friend of mine, had just decided that there is. After the death of her mother, she invited her father to move in with her family. In fact, she first took him to visit some old people's homes, but neither of them liked those institutions. He is too weak to live on his own, so he was happy to accept her offer of a room in her house.

Their life together has started with great changes. Frances' husband now has his study in the guest bedroom. Two children, 18 and 19, have been moved to his previous study. But the room is too small for the two of them and they can't use it at the same time. When Jane wants to study, Cathy must go to the kitchen or watch TV in the sitting room.

Another big change has taken place in Frances' routine of everyday life. She is now very busy with new jobs about the house, especially that her father has a lot of friends who visit him very often. For example, yesterday she first helped him start his day and cooked the special breakfast which he needs. Then she loaded the washing machine and began preparing tea for his first group of friends. Just as she wanted to have some breakfast herself, his emergency bell rang. She ran upstairs into his room, expecting some serious accident. But in fact a beautiful bird had visited the bird table outside the window, and he wanted to show her.

Frances is happy to have her father at home, but now she has decided that they must have some rules which will help them live together. She will have to tell her father that birds, even when they are beautiful, are not an emergency. In the future, he will sometimes have to admire them on his own. It is important that he accepts Frances and her family's needs, just as they accept his. There will be problems, but looking after an old parent or grandparent can still function very well – if everyone is ready to adapt a little.

1. More families will have to look after their old relatives at home because

A people will be getting old more quickly.
B there will be too many old people for the government to take care of.
C there won't be enough money for the salaries of many old people.
D the government will stop looking after them.

2. The author gives the example of her own home to prove that

A families used to look after their old members.
B big families were more common than today.
C children should help in looking after old people.
D old people can be very interesting and funny.

3. When she was a child, the author didn't realise that her mother

A listened to her grandmother's stories, too.
B was very unhappy.
C didn't go to work.
D was responsible for the family's life.

4. The author's friend has just decided that

A an old person should stay with the family.
B a place for an old person is easy to find.
C the model of her family life is not exciting.
D she should start her professional life.

5. Frances' father accepted her offer of a room in her house because

A his wife divorced him.
B old people's homes were full.
C he is not strong enough.
D he doesn't have other children.

6. Changes in Frances' family's life mean that now

A her husband has the largest room.
B two people live in one small room.
C one room is not used at all.
D Jane has no place to study.

7. The father's emergency bell rang because

A he had an accident.
B a bird came into his room.
C he saw a bird outside.
D the bird table was empty.

8. Frances will have to tell her father that he shouldn't

A call her any time a bird appears.

B ring his bell when he needs help.
C admire every bird outside his window.
D spend so much time alone in his room.

9. Frances' example shows that looking after an old parent or grandparent needs

A good planning.
B patience.
C a sense of humour.
D compromise.

7. Appendix 2

Read the article about twins. For questions (1-9), circle the answer (A, B, C or D) that fits best according to the article.

Twin Lives

It is well-known that twins are closer to each other than most brothers and sisters - after all, they probably spend more time with each other. Parents of twins often notice that they develop special ways of communicating: they invent their own words and one can often finish the other's sentence. In exceptional circumstances, this closeness becomes more extreme: they invent a whole language of their own, as in the case of Grace and Virginia Kennedy from Georgia in the USA, who communicated so successfully in their own special language that they did not speak any English at all until after they started school. In Britain there was the famous case of the ‘silent twins’, June and Jennifer Gibbons, who were perfectly capable of normal speech, but for years refused to talk to anyone but each other.

However, these special relationships are the result of lives spent almost entirely in each other's company. What happens when twins do not grow up together, when they are separated at birth for some reason? Are they just like any other strangers, or are there still special bonds and similarities between them? Professor Tom Bouchard, of the University of Minnesota, set out to find the answer to this question. He traced sixteen pairs of twins, who were adopted by different families when they were babies, and often brought up in very different circumstances. Each twin was then interviewed about every small detail of their life.

The results of this research make surprising reading. Many of the twins were found to have the same hobbies or phobias, many have suffered the same illnesses, and some have even had the same type of accident at the same point in their lives. When they arrived in Minneapolis, many were dressed in very similar clothes. One pair of middle-aged women arrived for their first meeting in identical dresses, another pair were wearing identical jewellery. A large number of the twins have had children at almost the same times; sometimes they have given them the same names. Terry Connolly and Margaret Richardson, British twins who didn't meet until they were in their mid-thirties, found that they had been married on the same day of the same year at almost the same time of the day. Both women have also had four children, all of more or less the same age.

But the most incredible similarities are to be found in the case of Jim Springer and Jim Lewis from Ohio in the USA. The story of the 'Jim Twins' made headline on national television. Born to an immigrant woman in 1939, and adopted by different families at birth, both babies named Jim by their new parents. This was just the first in an almost unbelievable series of coincidences that made them perfect candidates for behavioral research. The remarkable 'Jim Twins' both grew up with an adopted brother called Larry, and as children had dogs called Toy. Since leaving school, both men have worked in fast-food restaurants, as petrol stations attendants and as deputy sheriffs. Both men have been married twice, first to a woman called Linda and then to a woman called Betty and both named their first son James Alan. Both have had two heart attacks, suffer from the same kind of tension headaches, drink the same brand of beer and chain-smoke the same brand of cigarettes.

But what can be the explanation for these remarkable similarities? Is it all pure coincidence, or is the explanation in some way genetic? Research into the lives of twins is forcing some experts to admit that our personalities may be at least partly due to 'nature'. On the other hand, analysts are also anxious to emphasise that incredible coincidences do happen all the time, not just in the lives of twins.

1. Parents of twins often notice that they:

A communicate only to each other.
B behave the same way.
C have the same thoughts when speaking.
D use their own sign language.

2. The example of Grace and Virginia Kennedy is given because they

A communicated in their own language their whole lives.
B spoke their special language after school.
C are the only twins who didn't speak English to each other.
D developed an extreme bond to one another.

3. Professor Tom Bouchard wanted to find out:

A about the lives of the twins raised apart.
B all the similarities between twins.
C what the differences between twins are.
D whether the twins behave strange when separated at birth.

4. In his research, Professor Bouchard

A interviewed families who adopted the twins.
B reunited pairs of twins who grew up separately.
C collected every detail about the adoption of the twins.
D found different families with twin babies.

5. One of the similarities among the twins in Minneapolis was

A they saw the same accident at the same time.
B they met each other dressed exactly the same.
C they had the same number of children of different age
D they had the same names.

6. British twins Terry and Margaret are interesting because

A their children were born on the same day.
B they had been married in their mid-thirties.
C their wedding took place on the same day.
D their children met at the age of thirty.

7. The 'Jim Twins' were perfect candidates for the research because:

A there was an odd contrast between them.
B there was a set of strange overlaps in their lives.
C no one believed their story until they saw it on TV.
D they both had the same health condition.

8. The researchers conclude that:

A the twins have the same personality.
B biology can explain all the similarities between twins.
C our personality cannot be explained.
D the genetic makeup influences our character.

9. Some scientists believe that:

A there is no such thing as coincidence.
B the lives of twins are very interesting for research.
C coincidences are a part of everyone's life.
D only twins are similar.

8. Appendix 3

SURVEY OF READING STRATEGIES

The purpose of this survey is to collect information about the reading strategies you used while reading the previous text. Please answer honestly which strategies you used while reading it and not those you usually use or think you should use. For each statement you can circle one of the following numbers:

1 – disagree 2 – neither agree nor disagree 3 – agree

Please answer the following three questions before evaluating the statements:

Gender: M F
Your English grade at the end of the last school year: _____
How many years have you been learning English? _____

1.	I took notes while reading to help me understand what I read.	1	2	3
2.	I thought about what I know to help me understand what I read.	1	2	3
3.	I took an overall view of the text to see what it is about before reading it.	1	2	3
4.	If I could have, I would have read the text aloud when it became difficult to help me understand what I read.	1	2	3
5.	I read slowly and carefully to make sure I understood what I was reading.	1	2	3
6.	I reviewed the text first by noting its characteristics like length and organization.	1	2	3
7.	I tried to get back on track when I lost concentration.	1	2	3
8.	I underlined or circled information in the text to help me remember it.	1	2	3
9.	I adjusted my reading speed according to what I was reading.	1	2	3
10.	When I was reading, I decided what to read closely and what to ignore.	1	2	3
11.	If I could have, I would have used reference materials (e.g. a dictionary) to help me understand what I read.	1	2	3
12.	When the text became difficult, I paid closer attention to what I was reading.	1	2	3
13.	I stopped from time to time and thought about what I was reading.	1	2	3
14.	I used context clues to help me better understand what I read.	1	2	3
15.	I paraphrased (restated ideas in my own words) to better understand what I read.	1	2	3
16.	I tried to picture or visualize information to help me remember what I read.	1	2	3
17.	I critically analyzed and evaluated the information presented in the text.	1	2	3
18.	I went back and forth in the text to find relationships among ideas in it.	1	2	3
19.	I checked my understanding when I came across new information.	1	2	3
20.	I tried to guess what the content of the text is about when I read.	1	2	3
21.	When the text became difficult, I re-read it to increase my understanding.	1	2	3
22.	I asked myself questions I liked to have answered in the text.	1	2	3
23.	I checked to see if my guesses about the text were right or wrong.	1	2	3
24.	While reading, I guessed the meaning of unknown words or phrases.	1	2	3
25.	When I was reading, I translated from English into my native language.	1	2	3
26.	While reading, I thought about information in both English and my mother tongue.	1	2	3