

COGNITIVE READING COMPREHENSION STRATEGIES EMPLOYED BY ELT STUDENTS

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Abstract

The aim of this study is to determine what reading comprehension strategies the first year students utilize, and how frequently they make use of reading comprehension strategies in reading comprehension. The sample of the study is made up of 28 first year students who study at Erciyes University, Faculty of Education, ELT Department. In order to identify the students' reading comprehension strategies profiles, they were given a reading comprehension text of 16 items measuring their reading comprehension. While reading the text, each student was ensured that they express their thoughts about the text aloud to reveal his reading strategies. According to the responses obtained from the students, it was found that the most frequently used strategies are "general comprehension strategies", and that the least frequently used strategies are "asking questions about text content", "coping with difficult parts", and "identifying the significance of information." The findings obtained were discussed in line with the literature.

Key words: Reading comprehension, Reading strategies, Cognitive and Metacognitive strategies

İNGİLİZ DİLİ EĞİTİMİ ÖĞRENCİLERİNİN KULLANDIKLARI BİLİŞSEL OKUDUĞUNU ANLAMA STRATEJİLERİ

Öz

Bu çalışmanın amacı, birinci sınıf öğrencilerinin okuduğunu anlamada hangi okuma stratejilerini ve bunları ne sıklıkla kullandıklarını belirlemektir. Araştırmanın örneklemini, Erciyes Üniversitesi Eğitim Fakültesi İngilizce Öğretmenliği 1. sınıfta öğrenim gören 28 öğrenci oluşturmaktadır. Araştırmada öğrencilerin okuma strateji profillerini belirlemek amacıyla 16 maddeden oluşan bir okuma metni verilmiş ve metni okurken her öğrencinin metinle ilgili düşüncelerini sesli olarak ifade etmeleri sağlanmıştır. Öğrencilerden elde edilen cevaplara göre en çok kullanılan stratejinin "genel okuma stratejileri", en az kullanılan stratejilerin ise "metin içeriği ile ilgili sorular sorma" "metnin zor kısımlarını çözmeye" ve "önemli bilgileri tespit etme" olduğu bulunmuştur. Elde edilen bulgular literatüre göre tartışılmıştır.

Anahtar sözcükler: Okuduğunu anlama, Okuma stratejileri, Bilişsel ve Üstbilişsel stratejiler

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1. INTRODUCTION

Reading is defined as an active process where there is an interaction with the text in order to produce meaning out of written discourse¹. Efficient readers make predictions about the content of the text, and also they combine textual clues, knowledge of the world and experience skillfully. Also, such readers develop expectations about what they will read, and then they read to verify or refute these predictions and expectations^{2 3}. Durkin⁴ states that comprehension takes place in the form of a negotiation between the reader and the text. According to this view, meaning is constructed by the reader's interchange with the text through intentional, problem solving, and thinking processes. The text and the reader's prior knowledge influence the construction of meaning. Thus, reading comprehension is regarded as the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text. As a result, meaning does not rest merely in the text nor only in the reader but in the interaction of the two, which is regarded as a third entity constructed by the reader. Also, the reader constructs meaning representations of the text as he reads, and these representations are essential to what is read and understood.

Current views of second language reading focus on descriptions of interactive processes where reading involves the combination of bottom-up (text-driven) and top-down (knowledge-driven or reader-driven) strategies^{5 6}. According to this view, first, the reader turns the surface form of the text into underlying conceptual propositions. Second, he uses his world knowledge to identify the referents of the concepts in the text, recognizes linking expressions, and draws inferences to make causal relations among the action sequences of the text. In this way, the reader constructs a mental model or situation model. The bottom-up approach which depends on the decoding of syntax, lexicon, and text structure informs the reader from a data point of view, and in the top-down approach, the reader interprets the text by incorporating his own background knowledge, assumptions, and sensitivities to inform himself from a knowledge perspective.

¹ S. Silberstein, *Techniques and resources in teaching reading*. New York: Oxford University Press, 1994, 6-7.

² K. S. Goodman, "Reading: A Psycholinguistic Guessing Game", *Journal of the Reading Specialist*, Vol 6(1), 1967, 126-135.

³ F. Smith, *Understanding reading: Analysis of reading and learning to read*. New York: Holt, Rinehart and Winston, 1971, 59-94.

⁴ D. Durkin, *Teaching them to read*. (sixth ed.). Boston, MA: Allyn and Bacon. 1993.

⁵ E. B. Bernhardt, *Reading development in a second language: Theoretical, empirical and classroom perspectives*. Norwood: Ablex Publishing Corporation. (1991).

⁶ E. Block, "See How They Read: Comprehension Monitoring of L1 and L2 Readers", *TESOL Quarterly*, Vol 26, No: 2, 1992, 319-343.

According to Grabe⁷, reading is also composed of some basic and essential characteristics such as purpose, interaction, comprehension, flexibility, evaluation and gradual development. The reader has a purpose for reading such as getting information or entertainment. The reader interacts not only with textual information but also with his knowledge of the world. Furthermore, the good reader does not worry whether he will understand the text as he starts reading. He simply expects to understand what he reads. Reading can also be considered as flexible because the reader benefits from different strategies according to his changing purposes in the act of reading. Reading involves evaluation skills as well because it is necessary for the reader to critique textual information and assess his own reading performance. Finally, reading develops gradually. The reader does not reach sudden or immediate development in reading, but he has to invest long-term effort and practice in the process of reading, which will result in efficient reading performance.

Reading strategies play a significant role in the comprehension of the text, and students who are equipped with sufficient and effective reading strategies employ them correctly and appropriately to comprehend the text. Thus, the good reader is a strategic reader and he knows how to approach the text. Garner⁸ defines reading strategies as generally deliberate, planful activities which are undertaken by an active reader, many times to remedy perceived cognitive failure, and facilitate reading comprehension. Thus, reading strategies cover how the reader thinks of a reading task, what textual clues he considers, how he understands what he has read, and what he does when he does not understand the text⁹.

It is widely acknowledged that strategy use improves reading comprehension and that most readers will face many difficulties if they do not take up using a variety of strategies¹⁰. Therefore, reading strategies are required for efficient reading, and in every reading lesson they should be introduced, practiced and their use should be discussed by asking such questions as what strategies to use, where, when, how, how much, how often, and why to use them in comprehending different texts. It is suggested that the reader use strategies in combination rather than in isolation for achievement.

Since strategies are essential for successful comprehension to occur, various studies have been conducted to investigate the effects of strategy training

⁷ W. Grabe, "Current Developments in Second Language Reading Research", *TESOL Quarterly*, Vol 25, No: 3, 1991, 375-406.

⁸ R. Garner, *Metacognition and reading comprehension*. Norwood, NJ: Albex, 1987.

⁹ T. S. C. Farrell, "Teaching Reading Strategies: 'It Takes Time!'", *Reading in a Foreign Language*, Vol 13, 2001, 631-635.

¹⁰ P. L. Carrell, "Metacognitive Awareness and Second Language Reading", *The Modern Language Journal*, Vol 73, No: 2, 1989, 121-134.

on students' strategy use^{11 12 13 14 15 16 17 18 19}. The results of these studies investigating both students' strategic behaviors and the effects of strategy training demonstrate the positive outcomes of strategy instruction in terms of raising students' awareness of reading strategies and promoting efficient reading. Therefore, effective reading strategy instruction should involve training in when, where and how to use strategies in harmony²⁰ rather than instructions on individual reading strategies because the long-term purpose of strategy training is to raise students' awareness of reading strategies and to create independent strategic readers²¹.

O'Malley and Chamot,²² commonly categorize reading strategies as metacognitive, cognitive, and social/affective. Metacognitive strategies are higher order executive skills which entail planning for, monitoring or evaluating the success of a reading task. They are used to plan, arrange, evaluate, organize, set goals and objectives, supervise, regulate or self-direct, and they are applicable to almost all types of learning tasks. Metacognitive strategies help a learner coordinate his own learning process and they are essential for learning a language successfully. Among the metacognitive strategies are directed attention, self-evaluation, self-management and self-monitoring. Cognitive strategies refer to the steps or operations used in learning or problem-solving, which require direct analysis, transformation, or synthesis of learning materials. They operate directly

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- ¹¹ A. Akyel, and G. Erçetin, "Hypermedia Reading Strategies Employed by Advanced Learners of English", *System*, Vol 37, 2009, 136-152.
- ¹² J. C. Anderson, "Individual differences in Strategy Use in Second Language Reading and Testing", *The Modern Language Journal*, Vol 75, 1991, 460-72.
- ¹³ E. R. Auerbach, and D. Paxton, "It's not the English Thing: Bringing Reading Research into the ESL Classroom", *TESOL Quarterly*, Vol 31, 1997, 237-261.
- ¹⁴ S. Çoğmen, and A. S. Saracaloğlu, "Üst Bilişsel Okuma Stratejileri Ölçeği'nin Türkçe'ye Uyarlama Çalışmaları", *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, Cilt 28, Sayı: 2, 2010, 91-99.
- ¹⁵ R. G. Kern, "Second Language Reading Strategy Instruction: Its Effects on Comprehension and Word Inference Ability", *The Modern Language Journal*, Vol 73, 1989, 135-149.
- ¹⁶ K. Mokhtari, and C. Reichard, "Investigating the Strategic Reading Processes of First and Second Language Readers in Two Different Cultural Contexts", *System*, Vol 32, 2004, 379-394.
- ¹⁷ Y. Özek and M. Civelek, "A study on the Use of Cognitive Reading Strategies by ELT students", *Asian EFL Journal*, 2006, 1-26
- ¹⁸ R. Salataci, and A. Akyel, "Possible Effects of Strategy Instruction on L1 and L2 Reading", *Reading in a Foreign Language*, Vol 14, No: 1, 2002, 1-16.
- ¹⁹ S. Tuyan, *An Identification and Description of the Reading Strategies Used by Freshmen Students through Think-aloud Protocols*. M.A. Dissertation. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü. 1998.
- ²⁰ Carrell, a.g.e.
- ²¹ W. Grabe, and F. L. Stoller, *Teaching and researching reading*. London: Longman. 2002.
- ²² J. M. O'Malley, and A. U. Chamot, *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press, 1990, 91.

on new information and control it to promote learning. They help a student to understand and produce the new language by repeating, summarizing, reasoning deductively, predicting, analyzing, using context clues, note taking, and practicing with the specific aspects of the target language such as sentence structure and unknown vocabulary. Unlike metacognitive strategies, cognitive strategies may not be applied to all types of learning tasks. Rather, they seem to be directly connected to specific learning tasks. Social/affective strategies which are exemplified as cooperating and asking for clarification have to do with the ways in which a learner chooses to interact with other learners and native speakers. They may be applied to a broad range of tasks.

According to the results of different studies on reading comprehension, the following strategies are seen as essential for the reading process to be effective²³. 1. determining a reading objective; activating and using one's own knowledge with regard to the content of the text, 2. drawing connections or relations between words, sentences and paragraphs, predicting information and creating representations, 3. exploring the nature and structure of different types of texts, 4. discovering the theme and the main ideas in the text along with a summary, 5. posing and answering one's own questions, 6. planning, steering, monitoring and correcting one's own reading behavior, 7. evaluating texts for their value, and 8. reflecting on the reading activities which have been executed and their results.

The problems of the study are the following:

1. What strategies do the first year students make use of in reading comprehension?
2. How frequently do the first year students make use of reading comprehension strategies?

2. METHOD

2.1 Population and Sample

The first year students who study at Erciyes University Faculty of Education English Language Teaching Department participated in the study in the 2011-2012 academic year. The population of the study was 120 ELT first year students who took the Advanced Reading and Writing II course. The sample was drawn from this population through the random method. Thus, the sample consisted of 28 first year students, 21 of whom were female (75 %) and 7 were male (25 %).

²³ C. Aarnoutse, and G. Schellings, "Reading Models and Strategy Use", *Educational Studies*, Vol 29, No: 4, 2003, 388-409.

2.2. Instruments

2.2.1. The Reading Text

In the study, the sample was given a reading comprehension text. The text was taken from the web page <http://www.edict.com.hk/vlc>, which was adapted from South China Morning Post. It consisted of 16 items to uncover how the students would in fact employ reading comprehension strategies. The text was chosen in line with the students' curiosity, interests and linguistic competence. The difficulty level of the text was a little above the students' linguistic competence. Someren, Barnard and Sandberg²⁴ notes that think-aloud works better when the difficulty level of a task is difficult in order to foster students' thinking. The text was submitted to the views of 6 experts and it was found to be valid by the views of experts. The reliability of the test was investigated in a group of 30 students other than the sample. The reliability analysis was performed by using the test re-test method. A reliability coefficient of .70 is accepted to be sufficient, and the reliability coefficient for the test was .75.

2.2.2. The Think-aloud Method

In order to reveal the students' reading comprehension strategies profile, the think-aloud method was used by making use of the reading text. The think-aloud method is a technique of data collection in which a subject is stopped at certain points or intervals while solving a problem (i.e. finding out cognitive and/or metacognitive strategies) in order to understand how he is solving it²⁵. As a form of verbal report, think aloud protocols are usually made use of to identify the processes which occur during reading although they are occasionally thought to interrupt the reading process²⁶. The reason for this is the fact that cognitive processing occurs unconsciously²⁷. Nevertheless, think aloud protocols are commonly used to reveal in detail what information is attended to while performing a task²⁸. In the think-aloud sessions, the participants were asked to think aloud in front of a tape recorder as they read the text. Each student was interviewed approximately for 30 minutes. All the interviews with the students performed through think-aloud protocols were tape recorded and then transcribed verbatim. Later, the think-aloud protocols were analyzed qualitatively.

²⁴ M. V. Someren, F. Barnard and J. A. Sandberg, *The think-aloud method: A practical guide to modeling cognitive processes*. London: Academic press. 1994.

²⁵ Someren, Barnard and Sandberg, a.g.e

²⁶ R. Oxford, *Language Learning Strategies around the world: Cross-cultural perspectives*. Hawaii: University of Hawaii Press. 1996.

²⁷ A. D. Cohen, *Strategies in learning and using a second language*. New York: Longman. 1998.

²⁸ K. A. Ericsson, and H. A. Simon, *Protocol Analysis: Verbal Reports as Data*. Mit Press, Cambridge, Mass. 1993.

3. FINDINGS

In this section are given the findings of the think-aloud method which was applied together with the reading text while the students were reading and thinking aloud.

3.1. The Reading Comprehension Strategies Used by the First Year Students

The responses the students gave to the reading text were examined by the think-aloud method. In the analysis of the think-aloud protocols, the strategy classification coding scheme proposed by Someren, Barnard, and Sandberg²⁹ was used. From this classification, 8 themes and 26 reading comprehension strategies used by the participants were identified. The themes and the reading comprehension strategies are given in table 1, 2, 3, 4, 5, 6, 7, 8 and 9 respectively.

Table 1. The Themes which Emerged from the Think-aloud Protocols

| | |
|---|---|
| 1 | General Comprehension Strategies |
| 2 | Asking Questions about Text Content |
| 3 | Checking the Accuracy of Responses |
| 4 | Understanding Text Type |
| 5 | Coping with Difficult Parts |
| 6 | Identifying the Significance of Information |
| 7 | Identifying Main Idea and Supports |
| 7 | Extracting the Meaning of Unknown Words |

Table 2. Strategies for General Comprehension

| | f | % |
|--|---|-------|
| 1 Underlining important sentences | 4 | 14,28 |
| 2 Skimming the text to get general information about the topic of the text | 4 | 14,28 |
| 3 Separating the text into parts to comprehend it better and summarizing them | 4 | 14,28 |
| 4 Relating background information to the topic of the text | 2 | 7,14 |
| 5 Using different strategies and reading critically and thoroughly | 6 | 21,42 |
| 6 Extracting the general message of the text and making generalizations by using the information in the text | 3 | 10,71 |
| 7 Reading the text setting a purpose | 3 | 10,71 |
| 8 Taking notes and paying attention to key words | 4 | 14,28 |

²⁹ Someren, Barnard and Sandberg, a.g.e

When the responses the students gave to the reading text were examined by the think-aloud method, 8 themes and 26 reading comprehension strategies were found. The students use 8 different reading comprehension strategies under the theme general comprehension strategies. When these strategies are examined, the strategy “Using different strategies and reading critically and thoroughly (21,42 %)” is used the most frequently while the strategy “Relating background information to the topic of the text (7,14 %)” is used the least frequently.

Table 3. Strategies for Asking Questions about Text Content

| | f | % |
|---|----|-------|
| 1 Guessing and writing questions about the text by looking at the title | 16 | 57,14 |
| 2 Asking questions about the topic, content and purpose of reading | 12 | 42,86 |

The students use 2 different reading comprehension strategies under the theme asking questions about text content. When these strategies are examined, the strategy “Guessing and writing questions about the text by looking at the title (57,14 %)” is used more frequently than the strategy “Asking questions about the topic, content and purpose of reading (42,86 %)”.

Table 4. Strategies for Checking the Accuracy of Responses

| | f | % |
|--|----|-------|
| 1 Rereading certain points thoroughly to find evidence | 18 | 64,28 |
| 2 Making connections among the information and interpreting it | 6 | 21,42 |
| 3 Focusing on previous and following sentences, pronouns, reference words and conjunctions | 4 | 14,28 |

The students use 3 different reading comprehension strategies under the theme checking the accuracy of responses. When these strategies are examined, the strategy “Rereading certain points thoroughly to find evidence (64,28 %) is used the most frequently. However, the strategy “Focusing on previous and following sentences, pronouns, reference words and conjunctions (14,28 %)” is used the least frequently.

Table 5. Strategies for Understanding Text Type

| | f | % |
|--|----------|----------|
| 1 Guessing the type of the text by looking at the title and the first paragraph | 13 | 46,43 |
| 2 Guessing the type of the text by looking at how the information is presented and ordered and the way the text is written | 8 | 28,57 |
| 3 Guessing the type of the text by looking at the writer's style and language | 7 | 25 |

The students use 3 different reading comprehension strategies under the theme understanding text type. When these strategies are examined, the strategy "Guessing the type of the text by looking at the title and the first paragraph (46,43 %)" is used the most frequently. However, the strategy "Guessing the type of the text by looking at the writer's style and language (25 %)" is used the least frequently.

Table 6. Strategies for Coping with Difficult Parts

| | f | % |
|--|----------|----------|
| 1 Skipping difficult parts and looking for the same information in other parts of the text | 21 | 75 |
| 2 Adding his own interpretations to difficult parts and separating difficult parts into sections | 7 | 25 |

The students use 2 different reading comprehension strategies under the theme coping with difficult parts. When these strategies are examined, the strategy "Skipping difficult parts and looking for the same information in other parts of the text (75 %)" is used more frequently than the strategy "Adding his own interpretations to difficult parts and separating difficult parts into sections (25 %)".

Table 7. Strategies for Identifying the Significance of Information

| | f | % |
|---|----------|----------|
| 1 Detecting key words, sentences and general thoughts and expressions | 21 | 75 |
| 2 Focusing on the information in the text equally | 7 | 25 |

The students use 2 different reading comprehension strategies under the theme identifying the significance of information. When these strategies are examined, the strategy “Detecting key words, sentences and general thoughts and expressions (75 %)” is used more frequently than the strategy “Focusing on the information in the text equally (25 %).”

Table 8. Strategies for Identifying Main Idea and Supports

| | f | % |
|--|----------|----------|
| 1 Paying attention to general and prevailing comments and thoughts | 12 | 42,85 |
| 2 Focusing on the first and the last paragraph | 10 | 35,71 |
| 3 Distinguishing the sentences which could be supports | 6 | 21,42 |

The students use 3 different reading comprehension strategies under the theme identifying main idea and supports. When these strategies are examined, the strategy “Paying attention to general and prevailing comments and thoughts (42,85 %)” is used the most frequently. However, the strategy “Distinguishing the sentences which could be supports (21,42 %)” is used the least frequently.

Table 9. Strategies for Extracting the Meaning of Unknown Words

| | f | % |
|---|----------|----------|
| 1 Guessing the meaning of words from the sentences where they occur, previous and following sentences | 14 | 50 |
| 2 Inferring the meaning of words | 7 | 25 |
| 3 Guessing the meaning of words by making use of stems, affixes, parts of speech and the whole text | 7 | 25 |

The students use 3 different reading comprehension strategies under the theme extracting the meaning of unknown words. When these strategies are examined, the strategy “Guessing the meaning of words from the sentences where they occur, previous and following sentences (50 %)” is used more frequently than the strategies “Inferring the meaning of words (25 %)” and “Guessing the meaning of words by making use of stems, affixes, parts of speech and the whole text (25%)”.

4. DISCUSSION

The purpose of this study was to identify the types and frequency of reading comprehension strategies employed by the first year students. When the findings of the research were examined, 26 reading comprehension strategies were identified under 8 themes. The first theme is the general reading comprehension and there are 8 different reading comprehension strategies within this theme. From among these strategies, the strategy “Underlining important sentences” is used by 14,28 % of the students. This strategy may indicate that the students know how and where to look for information in the text. The students may underline some sentences to focus on important information and to distinguish such information from less important information. Also, by focusing on important information, they may get the gist of the text. The studies support this finding of the study^{30 31}. The strategy “Skimming the text to get general information about the topic of the text” is used by 14,28 % of the students. By skimming students get information about the text and also they can discover main points. Thus, they can form expectations about the content of the text and this may facilitate their comprehension. Therefore, skimming is one of the principal strategies of reading comprehension, and this finding is supported by the findings of^{32 33}.

The strategy “Separating the text into parts to comprehend it better and summarizing them” is used by 14,28 % of the students. By using this strategy, students can focus on the information required by the text, they will not be distracted by insignificant information, and they may save time. The study conducted by Duke and Pearson³⁴ is similar to this finding of the study. Also, the strategy of summarization is an important strategy because it gives evidence of comprehension. According to Stoller³⁵ and Taraban, Rynearson and Kerr³⁶, summarization is a strategy used by good readers. The strategy “Relating background information to the topic of the text” is used by 7,14 % of the students. It is not alone enough to understand the words, structure, and purpose in order to comprehend the text, but readers should have access to the background knowledge

³⁰ F. Kantarcı, *Students' Awareness of Reading Strategies*. M.A. Dissertation. Graduate School of Education. Bilkent University. 2006.

³¹ S. Sadık, *Effects of Strategy Instruction Focus Activities on Students' Reading Strategy Use*. M.A. Dissertation. The Institute of Economics and Social Sciences, Bilkent University. 2005.

³² H. D. Brown, *Language Assessment: Principles and Classroom Practices*. New York: Pearson Education. 2004.

³³ R. Taraban, K. Rynearson, and M. Kerr, “College Students' Academic Performance and Self-Reports of Comprehension Strategy Use”, *Reading Psychology*, Vol 21, 2000, 283-308.

³⁴ N. K. Duke, and P. Pearson, “Effective Practices for Developing Reading Comprehension”, *Scholastic Red*. 2002.

³⁵ F. L. Stoller, “Help Your Students Become Better Readers”, *Panama TESOL Newsletter*, Vol 14, 2000, 7-10.

³⁶ Taraban, Rynearson, and Kerr, a.g.e

related to the topic of the text. This finding of the study is supported by the findings of Ellery³⁷, National Reading Panel³⁸, Barnett³⁹.

The strategy “Using different strategies and reading critically and thoroughly” is used by 21,42 % of the students. According to Kern⁴⁰, Anderson⁴¹ and O’Malley and Chamot⁴², the basic element in strategy use is the recognition of when and how to use appropriate reading strategies in different combinations flexibly according to their changing needs and task demands. Thus, this feature of strategic reading has a positive impact on learners’ comprehension performance. The strategy “Extracting the general message of the text and making generalizations by using the information in the text” is used by 10,71 % of the students. Reading is getting the gist of the text and arriving at a general conclusion or evaluation. By connecting and relating the information in the text, students arrive at general conclusions and evaluations^{43 44}.

The strategy “Reading the text by setting a purpose” is used by 10,71 % of the students. This strategy can be considered as a metacognitive strategy because students plan, execute and monitor their reading comprehension. This strategy is supported by the studies of^{45 46}. The strategy “Taking notes and paying attention to key words” is used by 14,28 % of the students. Good readers use marginal notes, outlines, charts, or semantic maps for understanding and retaining information. They may focus on key words in the text to determine important parts of the text, general message, main idea, supports or to find and remember certain information in the text^{47 48}. The second theme of reading comprehension strategies is asking questions about text content. There are 2 different reading comprehension strategies within this theme. The strategy “Guessing and writing questions about the text by looking at the title” is used by 57,14 % of the students.

³⁷ V. Ellery, *Creating strategic readers*. Newark, DE: International Reading Association. 2005.

³⁸ National Reading Panel. *Report of the National Reading Panel: Teaching children to read*. Bethesda, MD: National Institute of Child Health and Human Development. 2000.

³⁹ M. A. Barnett, “Reading through Context: How Real and Perceived Strategy Use Affects L2 Comprehension”, *The Modern Language Journal*, Vol 73, No: 2, 1988, 150-162.

⁴⁰ Kern, a.g.e.

⁴¹ Anderson, a.g.e.

⁴² J. M. O’Malley, and A. U. Chamot, *The calla handbook: Implementing cognitive academic language learning approach*. New York: Addison-Wesley Publication. 1994.

⁴³ Aarnoutse, and Schellings, a.g.e.

⁴⁴ L. S. Pardo, “What every teacher needs to know about comprehension”, *The Reading Teacher*, Vol 58, 2004, 272-280.

⁴⁵ Özek and Civelek, a.g.e.

⁴⁶ Kantarcı, a.g.e.

⁴⁷ Brown, a.g.e

⁴⁸ R. I. Oxford, *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle Publishers. 1990. 10.

The title of the text usually gives the first information and clues about the content of the text. Students can have expectations about what they are going to read and what aspects of the topic are going to be discussed. Thus, by asking questions, they can focus on certain information and parts in the text, and questions can guide their comprehension during reading. According to Oxford et. al.⁴⁹, this strategy is among the strategies which good readers use. Such readers ask specific questions to guide, check and monitor their comprehension during reading. The strategy “Asking questions about the topic, content and purpose of reading” is used by 42,86 % of the students. By asking questions about the topic, content and purpose of reading, students can predict what they are going to read and they can determine how they should read the text in order to get intended messages from the text. Therefore, generating questions may help predict text content and facilitate reading comprehension. Thus, according to the National Reading Panel⁵⁰, question generation has a firm scientific basis for effective comprehension to occur. Also, according to Stoller⁵¹, the strategy of asking questions is among the strategies which good readers make use of to accomplish various reading tasks.

The third theme of reading comprehension strategies is checking the accuracy of responses. There are 3 different reading comprehension strategies within this theme. The strategy “Rereading certain points thoroughly to find evidence” is used by 64,28 % of the students. The students may reread certain parts to make sure that they have really understood and they have got the given messages. They may not want to miss important information which could be contained in the parts not understood or they may want to discover and understand relationships or connections with other parts of the text. Comprehension can be possible only if intended messages are extracted. Thus, good readers reread passages for a variety of purposes such as clarifying a misunderstanding or finding more details^{52 53}.

The strategy “Making connections among the information and interpreting it” is used by 21,42 % of the students. The information in the text is not independent of each other. The reader should combine and synthesize information scattered throughout the text and add his interpretation to extract intended messages and to understand the text correctly. According to Grabe and Stoller⁵⁴, readers draw meaning from the printed page and interpret the information appropriately to comprehend the text. The strategy “Focusing on previous and

⁴⁹ R. Oxford, Y. Chao, S. Leung, and H. Kim, “Effects of the presence and difficulty of task on strategy use: An exploratory study”, *IRAL*, Vol 42, 2004, 1-47.

⁵⁰ National Reading Panel, a.g.e

⁵¹ Stoller, a.g.e

⁵² Stoller, a.g.e

⁵³ Taraban, Rynearson and Kerr, a.g.e

⁵⁴ Grabe and Stoller, a.g.e

following sentences, pronouns, reference words and conjunctions” is used by 14,28 % of the students. When students read sentences, they should understand both individual sentences and relationships among sentences to discover implicit meanings. Also, they should understand how pronouns, reference words and conjunctions are related to words and sentences in order to figure out information which exists implicitly. This strategy is referred to as a bottom-up strategy which helps the reader to interpret the text from word level to sentence level^{55 56}.

The fourth theme of reading comprehension strategies is understanding text type. There are 3 different reading comprehension strategies within this theme. The strategy “Guessing the type of the text by looking at the title and the first paragraph” is used by 46,43 % of the students. The title and first paragraph usually give information about how the writer is going to discuss and present the topic^{57 58}. The strategy “Guessing the type of the text by looking at how the information is presented and ordered and the way the text is written” is used by 28,57 % of the students. The way the topic is discussed and presented could offer clues as to text type. The way information is presented and ordered could help identify text type because the writer could write the text with the purposes of persuading, instructing, informing, describing, arguing, etc. Good readers note the structure of the text and text sections for their reading goals⁵⁹.

The strategy “Guessing the type of the text by looking at the writer’s style and language” is used by 25 % of the students. Looking at the writer’s style and language could also give information about text type. The writer may write using a formal, informal or casual style, or he may use plain, simple or academic language. Good readers think about the authors of the text, their style, beliefs, intentions, etc⁶⁰. The fifth theme of reading comprehension strategies is coping with difficult parts. There are 3 different reading comprehension strategies within this theme. The strategy “Skipping difficult parts and looking for the same information in other parts of the text” is used by 75 % of the students. Reading comprehension does not mean understanding each word and sentence. The students may skip difficult parts and look for similar information in other parts of the text because the same information can be repeated in different expressions and sentences in another part of the text. This strategy is also found in^{61 62}.

⁵⁵ Barnett, a.g.e

⁵⁶ Carrell, a.g.e

⁵⁷ Kantarcı, a.g.e

⁵⁸ Özek and Civelek, a.g.e

⁵⁹ Duke and Pearson, a.g.e

⁶⁰ Duke and Pearson, a.g.e

⁶¹ Kantarcı, a.g.e

⁶² Özek and Civelek, a.g.e

The strategy “Adding his own interpretations to difficult parts and separating difficult parts into sections” is used by 25 % of the students. The students add their own interpretations to remedy comprehension failure. In this way they connect textual information with previous knowledge and generate inferences to understand the text. Therefore, these two strategies are related to monitoring comprehension, recognizing miscomprehension and repairing comprehension problems^{63 64 65}. The sixth theme of reading comprehension strategies is identifying the significance of information. There are 3 different reading comprehension strategies within this theme. The strategy “Detecting key words, sentences and general thoughts and expressions” is used by 35,71 % of the students. When reading the text, the reader should not try to understand every piece of information in the text. Some information in the text is more essential than the other. The reader should be able to distinguish essential information from non-essential information for comprehension. Thus, good readers distinguish between important information and details, they can use clues in the text to anticipate information and/or relate new information to information already stated⁶⁶.

The strategy “Focusing on the information in the text equally” is used by 25 % of the students. Reading comprehension does not involve understanding every piece of information in the text. The reader should read selectively both for better comprehension and saving time. This strategy is characteristic of poor readers. Such readers think that reading is understanding every sentence and vocabulary in the text. Therefore, they tend to focus more on bottom-up strategies than top-down strategies. Also, they tend to focus on reading as a decoding process rather than as a meaning-getting process. According to them, there is only one type of reading. They heavily use a bilingual dictionary, read by translating every word into their native language, and try to understand the text using knowledge of grammar. However, they do not give importance to how ideas are organized in the text and what the general idea of the text is^{67 68}. As a result, they construct an incomplete or poor quality representation of the text⁶⁹.

The seventh theme of reading comprehension strategies is identifying main idea and supports. There are 3 different reading comprehension strategies within

⁶³ Anderson, a.g.e

⁶⁴ Grabe and Stoller, a.g.e

⁶⁵ J. Green, and R. Oxford, “A Closer Look at Learning Strategies, Second Language Proficiency and Gender”, *TESOL Quarterly*, Vol 29, No: 2, 1995, 261-297.

⁶⁶ Farrell, a.g.e

⁶⁷ E. V. Knudsen, *Understanding reading comprehension difficulties at the university level*. PhD dissertation. Graduate Program in Psychology. The University of Western Ontario. 14-16. 2001.

⁶⁸ H. Nassaji, “Higher-Level and Lower-Level Text Processing Skills in Advanced ESL Reading Comprehension”, *Modern Language Journal*, Vol 87, 2003a, 261– 276.

⁶⁹ K. Cain, and J. Oakhill, “Inference Making Ability and Its Relation to Comprehension Failure in Young Children”, *Reading and Writing* Vol 11, 1999, 489-503.

this theme. The strategy “Paying attention to general and prevailing comments and thoughts” is used by 42,85 % of the students. Reading comprehension involves focusing on and paying attention to significant and general information, making connections between and among different parts of the text, and finally extracting the actual message or messages to be conveyed by the author. Therefore, when successful readers are reading the text, they use textual clues, try to reach general judgments, and read for general meaning^{70 71}.

The strategy “Focusing on the first and the last paragraph” is used by 35,71 % of the students. The writer introduces the topic and may give some clues as to the main idea in the first paragraph. He sums up the topic in the last paragraph and he may state the actual message in this paragraph. Therefore, the students may give importance to the first and the last paragraph for main idea. Similarly, this strategy is found in Kantarcı⁷², Özek and Civelek⁷³, and Sadık⁷⁴ as a top-down reading comprehension strategy.

The strategy “Distinguishing the sentences which could be supports” is used by 21,42 % of the students. Finding the main idea for comprehension is essential. However, students should also find evidence to support the main idea. Therefore, they should find supporting details and relate them to each other in order to reach a complete and integrated comprehension. According to Barnett⁷⁵, the strategy “separating main ideas from supporting ideas” is among important comprehension processes. The last theme of reading comprehension strategies is extracting the meaning of unknown words. There are 3 different reading comprehension strategies within this theme. The strategy “Guessing the meaning of words from the sentences where they occur, previous and following sentences” is used by 50 % of the students. The students try to guess the meaning of unknown words by looking at the sentences around the unknown vocabulary items. They use contextual clues to anticipate the meaning of unknown words. Thus, using contextual clues to guess word meaning is contained among important reading comprehension strategies^{76 77 78}.

The strategy “Inferring the meaning of words” is used by 25 % of the students. It may not always be possible to understand the meaning of words with the

⁷⁰ E. Block, “The Comprehension Strategies of Second Language Readers” *TESOL Quarterly*, 20, 1986, 463-494.

⁷¹ Garner, a.g.e.

⁷² Kantarcı, a.g.e

⁷³ Özek and Civelek, a.g.e

⁷⁴ Sadık, a.g.e

⁷⁵ Barnett, a.g.e

⁷⁶ Anderson, a.g.e

⁷⁷ O’Malley and Chamot, a.g.e

⁷⁸ Oxford, a.g.e.

help of parts of speech or affixes, but the reader should relate unknown items to other items in the sentence they occur and discover implicit connections of unknown items with other known items. Therefore, inferencing is a compensation strategy used in reading comprehension^{79 80 81 82}.

The strategy “Guessing the meaning of words by making use of stems, affixes, parts of speech and the whole text” is used by 25 % of the students. The students make use of grammatical features of words to guess meaning. For example, if the reader already knows base form of a word, he can predict the meaning with the help of the parts attached to the word. Thus, this strategy is found in Barnett’s⁸³, Brown’s⁸⁴ and Nassaji’s⁸⁵ strategy classification. Accordingly, readers recognize cognates and word families and they use lexical analysis (prefixes, suffixes, roots, etc.) to determine meaning.

5. CONCLUSIONS

The aim of this study was to determine what reading comprehension strategies the first year students utilize, and how frequently they make use of reading comprehension strategies in reading comprehension. When the findings of the research, which were obtained through the think-aloud protocols, were examined, 26 reading comprehension strategies were identified under 8 themes. According to the responses obtained from the students, it was found that the most frequently used strategies were “general comprehension strategies”, and that the least frequently used strategies were “asking questions about text content”, “coping with difficult parts”, and “identifying the significance of information.”

It can be said that the think-aloud protocol analysis is an effective method to reveal and identify students’ cognitive processes which they go through in achieving reading comprehension tasks. Thus, through such an analysis, it is possible to identify how students approach the text, i.e. by processing the text deeply or superficially and whether they can use effective or ineffective reading comprehension strategies. In this study, it was found that some students processed the text superficially, which indicates that they achieved little comprehension of the text. Therefore, after the identification of strategies through TAPs, the teacher can

⁷⁹ Barnett, a.g.e

⁸⁰ Brown, a.g.e

⁸¹ H. Nassaji, “The Relationship between Depth of Vocabulary Knowledge and L2 Learners’ Lexical Inferencing Strategy Use and Success”, *The Modern Language Journal*, Vol 90, No: 3, 2006, 387-401.

⁸² Oxford, 1990 a.g.e.

⁸³ Barnett, a.g.e

⁸⁴ Brown, a.g.e

⁸⁵ Nassaji, a.g.e

determine effective and ineffective strategies, and ineffective ones can be replaced by effective ones by giving students reading comprehension strategies instruction. There is ample evidence that good readers are strategic readers and that less successful readers can also benefit from such instruction in order to become effective readers. Reading strategy instruction positively affects students' strategy use and they can benefit from such instruction by learning various strategies to employ and by evaluating their own reading performance while reading. Students can be taught to choose appropriate strategies by integrating strategies into classroom reading tasks. They can practice strategies by applying them in different text types together with the teacher.⁸⁶

The teacher can use the TAPs in reading lessons in order to identify what strategies students are already using and what problems they have in reading comprehension. TAPs can serve as a diagnostic tool to reveal students' strengths and weaknesses in reading comprehension because detailed information can be obtained through TAPs about what problem solving strategies students use, what difficulties they encounter and to what extent and in what contexts they use certain reading comprehension strategies.⁸⁷ Also, students can be interviewed about the reasons for their preference to use certain reading comprehension strategies because they may be using ineffective strategies.

Further research on reading comprehension strategies can be conducted with large number of participants to reveal and identify students' actual reading comprehension strategies and their preferences for certain strategies by a combination of the TAPs and reading comprehension strategies inventories. Students can be given inventories first to see whether and how frequently they use certain reading comprehension strategies, and later TAPs can be administered to see whether and how much they can actually use the reading comprehension strategies they reported in inventories. Therefore, using two instruments may depict a more reliable and valid picture of actual reading comprehension performance, and they may also indicate problem areas in comprehension.

⁸⁶ R.I. Oxford, D. Crookall, A. Cohen, R. Lavine, M. Nyikos, W. Sutter, "Strategy training for language learners: Six situational case studies and a training model." *Foreign Language Annals*, Vol. 22, No: 3, 1990, 197-216.

⁸⁷ Someren, Barnard and Sandberg, a.g.e

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