

The Effect of Text Headings on High School Female Students' Reading Comprehension

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ABSTRACT

This study was an attempt to investigate the effect of SCROL (Survey, Connect, Read aloud, Outline, Look back) strategy of reading skill on EFL learners' reading comprehension achievement. An experimental design was employed in this research. To fulfill the purpose of this study, 60 female intermediate students of Taleqani high school were selected from among 80 students based on their performance on the standard KET test and randomly put into one experimental and one control group. After treatment of three sessions of SCROL strategy and teaching how to use text headings and subheadings for the experimental group, all participants in both groups read eight different passages which followed by five comprehension questions. Results of single *t*-test revealed that learners in experimental group who received SCROL reading strategy instruction produced significantly higher scores than the control group. Therefore, by considering the results of this study, it can be concluded that giving and teaching specific strategy to learners in reading process facilitates their comprehension of the text. The findings of current study propose some pedagogical implications for teachers, material designers and students who all have a relation with how to learn or teach reading comprehension more effectively and easily.

Keywords: Reading, Comprehension, Reading Comprehension, text headings, text subheadings, SCROL Strategy

ÖZ

Scrol okuma yöntemi bağlamında, yabancı dil olarak İngilizce öğrenen öğrencilerin okuduklarını anlama başarısının üzerindeki etkisi bu çalışmada araştırılmıştır. Çalışmanın katılımcıları İranlı kız öğrenciler olup, toplam 80 öğrenci arasından KET ölçünlü sınavı ile dilsel yeterlilikleri benzer ve aynı seviyede bulunan 60 öğrenci seçilmiştir. Çalışmaya seçilen öğrenciler gelişigüzel seçileme yöntemi kullanılarak iki gruba ayrılmışlardır; deneysel grup ve kontrol grup olarak. Çalışmada deneysel gruba SCROL okuma yöntemi uygulanmıştır. Bu uygulama önce öğrencilere yöntem tanıtılıp öğretildikten sonra gerçekleştirilmiştir. Uygulamanın temelinde okuma parçalarının başlık ve alt başlıklarının metnin tümü ile ilgili nasıl bir anlam içerdiği, anlamaya nasıl yardımcı olduğu ile ilgilidir. Kontrol grubunda bulunan öğrenciler ise her zaman kullandıkları yöntemle -okuyup cevaplama yolu ile- ders işlemişlerdir. Çalışmanın tümü 8 okuma parçasının sınıflarda işlenmesi ve ardından verilen sınav sonuçlarının karşılaştırılması ile tamamlanmıştır. Çalışmadan elde edilen sonuç SCROL uygulamasının yapıldığı deney grubundaki öğrencilerin, kontrol grubundaki öğrencilere göre nispeten daha iyi sonuçlar elde ettikleri yönünde gerçekleştirilmiştir.

Anahtar Kelimeler: Okuma, Anlama, Okuduğunu Anlama, metin başlıkları, metin alt başlıkları, SCROL yöntemi

To my family

And

To my husband

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Chapter 1

INTRODUCTION

1.1 Presentation

This chapter starts with an overview about the study which gives the information about reading comprehension, the nature of reading, and the importance of learning to read. Then, the statement of the problem, the purpose and also the significant of the study is discussed. The final part of this chapter is devoted to the definition of key terms.

1.2 Background of the Study

When students begin to learn a new language, they are faced with four skills. These are namely; (i) listening, (ii) speaking, (iii) reading, (iv) writing. This means, learning a new language requires developing and improving these four skills in order to facilitate the communication. In other words, these are the main skills that are important for the process of communication. In order to develop these four skills, various strategies and activities are necessary to be taken into consideration.

Among the four main language skills, the recent research about reading comprehension highlights the belief that it is one of the most helpful and important skills for educated people in general and for students in particular. Obtaining most of the information through reading in the school and college level indicates the importance of reading skills (Farhady, and Mirhassani, 2001). Therefore, the main

focus on this study is dedicated to reading skill and reading comprehension strategies for EFL students.

Many studies have been conducted in relation to reading, and findings of these studies reflect the fact that reading is a complex mental activity (Hannon & Daneman, 2001; Kucer, 2005; La Berge & Samuels, 1974; Kim & Goetz, 1995). Reading process includes different sub-skills, methods, and strategies which are highly involved in reading comprehension skill. In the last 15 years, interests in research for second/foreign language reading and practice have significantly increased. The increasing interest in language reading and practice research is commonly based on the fact that reading abilities are critical parts in language learning. In addition, successful reading provides an opportunity for students to learn a second language by themselves beyond the classroom (Schmitt, 2002).

Previous studies (Cohen, 1990; Silberstein, 1994; Grabe, 1991; Thompson, 1987) attempted to explain that reading process is not just related to derive meaning from the text; it is a process which involves with several mental activities that change regarding to reader's goals. Cohen states that: "based on variable characteristics of reading, it is known as an active process which needs identification skills in order to read the text and interpretation skills in order to understand the text" (Cohen, 1990, p. 75). In this regard, Silberstein noticed that the reader is an active person interacts with the text for the purpose of deriving meaning and also tries to comprehend and understand the text by using various reading strategies as facilitators (Silberstein, 1994).

Grabe (1991) described the features of fluent reading as:

- Rapid, because in order to make connections and implications for understanding the text, it is necessary to read at a sufficient rate.
- Interactive, because in order to understand what is written in the text, it is necessary to make interactions between text information and reader's prior knowledge.
- Comprehending, because it is expected from the reader to understand the text.
- Flexible, because there are different reading strategies which are used by readers due to the changes in reading purposes.
- Purposeful, because everyone read for certain purposes.
- Gradually developing, because the process of becoming a fluent reader requires a long time and a lot of effort and practice (Grabe, 1991).

In addition to the above mentioned points, Thompson (1987) categorizes three main dynamics for reading comprehension as (i) activation of background knowledge related to the text, (ii) identification of linguistic features, and (iii) effective use of reading strategies.

As it can be understood, one of the main goals for teaching and learning a foreign language is related to reading comprehension. When language teachers refer to the word "reading", they mean two different processes as: (i) students read a text from a printed page, and (ii) students read it for comprehension. In both situations, the reading process is useful if it is done at the right time for the right purposes (Chastain, 1998).

In the case of educational purposes, reading ability is important because it opens up new ways and opportunities for both children and adults as readers. Reading ability

gives students the opportunity of doing modern life activities such as reading newspapers, magazines, manuals, job listings, etc. It also enables students to obtain new information and knowledge and enjoy literature. Although many people learn to read in their first language without having any problems, still some of them need additional help (Pang, Bernhardt, Muaka, & Kamil, 2003).

Currently, educators are confronting with the challenge of creating an appropriate reading instruction for learners from the different culture and linguistic backgrounds. Even if learning to read is usually same for all the students, the second/foreign language readers bring their personal knowledge and understanding to the task. Therefore, this study is conducted since it is observed that when readers in a foreign language encounters with incomplete linguistic or cultural knowledge, they could compensate it by using interactive strategies, evoking background knowledge, and knowing how to choose appropriate strategies.

1.3 Purpose of the Study

In addition to the difficulties in comprehending the nature of reading, there is also a complication for foreign language readers. During the reading process, all the readers reflect variations such as age, motivation, social level, economic level, etc. what is more is that, second language readers are usually acquiring a complex cognitive ability that is in some ways distinct from native readers. Second language readers do not have the same language resources; they do not share all the social and cultural assumptions and knowledge bases (Schmitt, 2002).

However, the reason related to comprehension problems for the readers both in native and foreign language is not lack of background knowledge but is the failure to

activate it. Therefore, it is a challenging duty for teachers to develop students' fluent reading abilities by using different reading strategies. So that, reading strategies can facilitate the students' complex reading process.

In many cases, the first impression during the reading process comes from text heading and subheadings which can help activating background knowledge. In this respect, the purpose of this study is to investigate the effect of using text headings and subheadings on reading comprehension of English language learners. In order to do this, SCROL (survey, connect, read, outline, look back) procedure which is a reading comprehension strategy of using heading and subheadings of reading text, will be followed. In fact, besides valuing all the other effective factors of reading, this study intends to work on the effectiveness of headings and subheadings of reading texts. This study intends to address the following research question: Is there any significant difference in the reading comprehension ability of students who are taught by SCROL strategy and that of those who are taught via traditional procedure?

1.4 Significance of the Study

There are many studies in the fields of reading and reading skills. Scholars and researchers are trying to provide effective solutions in getting readers to comprehend the message they read. However, learners of a foreign language, have problems in reading meaningfully since foreign language reading is different from L1 reading.

This study intends to investigate whether the use of text headings and subheadings may enhance EFL learners' reading comprehension by following SCROL (Survey, Connect, Read, Outline, and Look back) procedure of reading skills. There is a number of evidence based on different researches which prove the effectiveness of

the use of text headings and subheadings in providing better comprehension results in reading.

Some of the researches indicate the benefits of using headings and subheadings of texts in the process of reading comprehension. For example, Hartley and his colleagues (1980) found out that headings helped the readers to remember the subject matter. Moreover, they found that headings in both types of question and statement improve the learning process. Mayer (1996) generated a reading model of using text signals and evaluated its relationship with text variables. In conclusion, she found that text signals (headings and topics) are useful for less successful readers in comprehending complex and unfamiliar texts.

In the present study, the researcher will conduct an investigation based on the reading process by using SCROL procedure. In other words, in this study learners will follow SCROL procedure (Grant, 1993) by using text heading and subheadings. For Grant: “the headings and subheadings provide essential and important message of text for readers.” Grant designed a format which conducts readers' use of text headings. This format which is named as “SCROL”, guides the learners in reading process and help them to better understand the meaning of the text.

The result of this study, therefore, can become a useful tool for English teachers to guide their learners to pay attention to the heading and subheadings of reading passages in teaching reading skills. It is also important to say that, for EFL/ESL learners, the use of heading and subheadings will activate their prior knowledge and as a result of this the meaning will be understood easily. The SCROL procedure will

also contribute to the material developers in writing appropriate text headings and subheadings which carry the related message of texts.

1.5 Limitations of the Study

The generalizability of the results in this study is subject to certain limitations. This study is limited to the female students of Taleqani High-school, Iran. Therefore, the results can hardly be generalized to settings with male or male-female learners. On the other hand, the participants of this study were all 18. Considering other ranges of age might bring different outcomes.

1.6 Definition of Key Terms

It is necessary to clarify the definition of each basic term involved in the study. Below are the definitions of the key terms used throughout this study.

Reading: Is "perception of written symbols as meaningful, involving recognition of words, fluency, and comprehension"(Thomas, & Marshal, 1980). Reading also involves with understanding the written texts. It is a complex activity which contains awareness and thinking (Pang, Muaka, bernhardt, & Kamil, 2003).

Comprehension: Is" the act of understanding the meaning of printed or spoken language as contrasted with the ability to perceive and pronounce words without reference to their meaning" (Good, 1973).

Reading comprehension: According to Harris & Hodges (1995), reading comprehension is "the linguistic process of reconstructing the intended message of the text by translating it's lexical and grammatical information into meaningful units

that can be integrated with the readers' knowledge and cognitive structures" (Harris & Hodges, 1995).

Text heading: Text heading stands at the upper side or beginning of a paragraph or section, and usually appears as a title, subtitle or topic. Text heading also is known as an indication of what the text or paragraph is about. (Farlex Inc., 2004).

Text subheading: A heading of subdivision or subsection of a printed text. It is a division subordinate to a main heading or title (Farlex Inc., 2004).

SCROL strategy: SCROL as a reading comprehension strategy help students and readers to understand the texts by teaching them how to use headings and sub-headings in order to have a better comprehension and recall important information. (Grant, 1993)

Chapter 2

LITERATURE REVIEW

2.1 Reading Process

Reading is a process which is related to activation of the reader's background knowledge in order to convey the meaning from writer to reader. According to Kern (1989), reading is a complex skill because it involves several principles as attention, keeping in mind, and perceptual and comprehension procedures (Kern, 1989).

Harmer (2001) found out that readers use different clues in order to comprehend what the writer is suggesting or telling; in this case, the readers can realize more than the literal meaning of the text. Therefore, Schema, which is defined as background knowledge that enables the reader to make predictions for more successful interaction, plays a vital role in the interpretation, since the interpretation depends on a large extent of shared schemata.

Pulido (2003), states that reading is a complex process which is concerned with activating readers' prior knowledge and contemporary linguistic processing. The units of linguistic processing as concept activation, the recognition of the pattern, the identification of letter, lexical access, and sentence comprehension increases the readers' ability in getting the meaning of the text.

Allan and Buruton (1998) define reading as a complex activity which derives meaning from the text in order to accomplish goals in wide range context. Successful readers realize the ways which are essential parts of reading and then control them consciously. Metacognition is what educators name this type of control, and it also refers to the fact of "knowing about knowing" (Metcalfe & Shimamura, 1994).

Goodman (1998) pointed out two theories about reading. In the first theory, reading is defined as "... matching sounds to letters", and in the second theory, reading is defined as a mastery, that "nobody knows how reading works".

Chastain (1998) defines reading as "an active mental structure functioning on written material for the purpose of understanding the text." He indicates that the writers try to activate experiences and prior information as well as linguistic information throughout the writing process in order to reconstruct the intended meaning in the readers' mind while they read the text. Then it is expected of readers to go beyond the written text and try to get what the writer means.

For Bialystok (1983), successful language learners can be considered as successful readers because the process of reading is directly involved with the success in learning a foreign language. He also states that "the reading ability is the most strong and stable of the second language modalities."

Recently, researches show that reading is known as a communicating and socio-cognitive procedure which contains a reader, a text, and a social setting its takes place (Bernhardt, 1991). Hudelson (1994) suggests that "In reading, an individual constructs meaning through a transaction with written text that has been created by

symbols that represent language. The transaction involves the reader's acting on or interpreting the text and the interpretation is influenced by the reader's past experiences, language background, and cultural framework, as well as the reader's purpose for reading" (Hudelson, 1994).

2.2 Types of Reading in Knowledge

Grabe (1991) identifies six knowledge areas within the complex process of reading.

These knowledge areas are presented in Table 2.1.

Table 2. 1. Reading Knowledge Areas, (Source: Grabe, 1991)

Automatic recognition skills	A virtually unconscious ability, ideally requiring little mental processing to recognize text, especially for word identification.
Vocabulary and structural knowledge	A sound understanding of language structure and a large recognition vocabulary.
Formal discourse structure knowledge	An understanding of how texts are organized and how information is put together into various genres of text (e.g., a report, a letter, a narrative).
Content/ world background knowledge	Prior knowledge of text-related information and a shared understanding of the cultural information involved in text.
Synthesis and evaluation skills/ strategies	The ability to read and compare information from multiple sources, to think critically about what one reads, and to decide what information is relevant or useful for one's purpose.
Metacognitive knowledge and skills monitoring	An awareness of one's mental processes and the ability to reflect on what one is doing and the strategies one is employing while reading.

Goodman (1998) introduced reading as a psycholinguistic procedure which begins with linguistic representation made by the writer and ends with what the reader create as a meaning. Therefore, a significant interaction exists in the reading process, between language and perception or between the writer and the reader. The writer codes perception as language, then the reader converts the code or language to perception.

Therefore, the process of reading is an interactive one. It contains the share of meaning from writer to reader. It also involves the fact that comprehension is closely related to reader's background knowledge. In other words, when the subject of a text is familiar for the students, they can talk, read, and write about it more easily (Allan & Bruton, 1998).

2.3 Importance of Reading Comprehension

Fielding and Pearson (1994), claim that possibly the most critical modifications in teaching how to read during the last fifteen years are in the comprehension area. When students are taught reading as a process of decoding an oral language, then comprehension becomes more complicated since it contains knowledge, thinking, experience and teaching. Fielding and Pearson also add that “comprehension fundamentally encompasses evaluative and inferential thinking, not only literal recreation of the author's words, most important; it can be taught directly.”

Kintsch (1998) observed that the reader is an active contributor with the written text and that the reader makes sense of whether concepts founded on the written text interrelated to each other. He proposed that the reader actively forms the meaning in the mind as mental illustrations and keep them as semantic explanations held in

memory during reading. These illustrations allow readers to recall and use what had been read and understood.

The concept of reading differs from one person to another, for some people it means understanding what is written, whereas, for others it is considered as an opportunity which leads to teach pronunciation and to practice speaking. However, for each case it has a goal. Reading is an everyday activity which is an inseparable part of people's life (Alderson, 2000).

As Celce-Murcia (2001) says, "People read for various purposes. Sometimes they read just to get the author's idea such as skimming a short story, and sometimes they read just to find specific information such as scanning for a term in an article. Likewise, people read passages in order to learn a knowledge that is reading to learn, and also they read for integrating and evaluating information." In order to use the reading process for all of these purposes, the comprehension of the written texts is necessary and plays a significant role in getting our purpose of reading.

According to Chastain (1998, p. 217), "the purpose of reading is to read in order to get the meaning or to reproduce the author's intended meaning. Reading for the purposes of improving pronunciation, training grammatical forms, and studying the terminology does not constitute the notion of reading at all since, by definition, reading contains comprehension. Thus, if readers do not comprehend the text, they did not read in fact."

Reading is important because of its relationship to other language skills. Teachers have to be aware of the relationship between reading and other skills, and they must

provide exercises to create this sound-symbol relationship. Without this awareness, students seem not to be successful in a language class that all language skills are focused (Chastain, 1998).

Erten and Razi (2003) reoffered the process of reading as the most significant skill among the four language skills. They mentioned that learning to read allow students to obtain exposure to the target language and gain valuable linguistic input in order to build up language proficiency.

According to Pardo (2004), "comprehension is a procedure in which readers interact with the text and derive meaning from the text. They also implement the use of background information and the knowledge presented in the text." In some cases, reading comprehension is regularly examined, but rarely taught (Ekwal & Shanker, 1992). During the past, teaching to read dedicated to teaching the skills of decoding, while understanding and comprehension expected to be made by some simple questions and retellings (Carnine, 2006).

As Kozminsky (1997) says, "the process of comprehending a text involves the reduction of the information presented in the text. Three interactive factors participate in this process as; (i) the reader's goals, (ii) the organized application of previous experience, and (iii) contextual information in the discourse".

The importance of reading comprehension can be seen in various conditions such as in academic settings, where reading is supposed to be the prerequisite means for education and learning new information as well as achieving access to alternative clarifications and interpretations. Moreover, reading comprehension creates the basis

for the synthesis and critical assessment skills. Reading is also a major tool for independent learning, whether the goal is a well performance on academic tasks, getting more information about subject matter, or improving language abilities (Grabe & Stoller, 2002).

According to Celce-Murcia (2001), the process of deriving meaning from text is comprehension. It includes the knowledge of vocabulary as well as thinking and reasoning. So, “comprehension is an active process. The reader dynamically involves with the text to derive meaning. This active involvement contains using of background knowledge. It engages with constructing implications from the words and expressions that a writer uses in order to communicate ideas, viewpoints, and information” (Celce-Murcia, 2001).

In this regard, the information gathered from the study which was conducted by National Assessment of Educational Progress (NAEP) indicates that 44% of students in 4th-grade which were not fluent enough in reading, were also unsuccessful in understanding the text (Pinnell, Pikulski, Wixson, Campbell, Gough, & Beatty, 1995). Therefore, using reading comprehension strategies, which are known as conscious mental tasks assist the students to derive meaning from texts actively.

Current researches have concentrated on how readers or students use their information, knowledge and thoughts to comprehend the texts. The term “comprehension strategy” is used to refer to the process of reasoning (Anderson, 1994). Good readers read consciously and they are aware of how well they comprehend the text while reading. Likewise, in order to overcome the comprehension difficulties, good readers take active steps. So, the students can be

taught by teachers to use reading comprehension strategies in order to improve text comprehension and information use (Anderson, 1994).

Chastain (1998) states that practice in reading is a preliminary step to both reading and writing. Before learners can read and write properly, the relationship between the sound and its written symbols is required to be constantly established. The teacher must provide exercises in order to establish this sound-symbol connection since experience shows that several students fail to learn it by themselves. As mentioned formerly, without this knowledge, students seem not to be successful in a language class that all language skills are focused (Chastain, 1998).

As a result of considerable amount of literature about reading comprehension and reading strategies, it has been generally suggested that teachers should plan reading strategy instructions after determining what methods students have used during the reading process and what they need. Furthermore, simply the presentation of the reading strategies is not enough, teachers should instruct their students to know when, where and how to use reading strategies in order to get better results in understanding and comprehension. As Anderson (1991) states, strategic reading requires competency in being aware of both what strategies must be used and how to apply these strategies in combination with regard to various reading objectives.

2.4 Reading Comprehension Strategies

There are many reading strategies which are suggested by different language teachers and researchers in all over the world. All of these strategies are useful in reading comprehension process. Different learners and readers can choose any of these

strategies in order to get better the message of the text they read. In this section, some of the reading strategies are presented.

2.4.1 Read-Aloud Strategy

One of the reading strategies is Read-Aloud strategy. During this strategy, the teacher reads aloud some attractive and interesting texts (Cunningham & Arlington, 1999). This procedure helps students to increase their knowledge of vocabulary, text comprehension, and also encourages students to read. By using Read-Aloud strategy, students have a chance to enjoy the passages even if they are not able to read them independently. Moreover, students' listening and comprehension skills are developed by this strategy.

The procedure of the strategy: (a) Select different types of attractive fiction or non-fiction texts which provide meaningful dialogues such as newspapers and magazines. Clarify the process of reading to students and read the text for them while they listen, enjoy and prepare themselves for having a discussion about the text. (b) During the reading section, teacher tries to model fluent reading and making pauses at certain points in order to involve the students in the discussion. This kind of pause and conversations will help students to make some predictions and set a purpose to listening. Retelling simple stories, explaining ideas by using descriptive language, and making links between texts and personal experiences may be required from students. (c) Reading again favorite books (Cunningham & Arlington, 1999).

2.4.2 SQ3R Strategy (Survey, Question, Read, Recite, and Review)

Robinson (1961) presented a study strategy which throughout this strategy, students preview texts for the purpose of making predictions and ask questions in order to direct their reading. Students actively search to find the answers of their questions while they read the text and when they finished reading they try to summarize the

text and review notes. Therefore, by using this strategy, students monitor and evaluate their comprehension. Robinson (1961) describes the procedure of this strategy.

The procedure of the strategy: (a) Explain to students that SQ3R is a strategy which will improve the students reading skills and help them understand texts independently (b) Select an unread text. The selected text must include graphic and typographical features like headings and subheadings. The length of the selected text must be appropriate; it should be not too long. Teacher must clarify that the text will be read by all the students in order to learn how to use SQ3R, as a reading comprehension strategy. (c) Then, the teacher models the strategy for the selected text, by mentioning the procedure on the board.

Survey. Every reading text must be surveyed. The headings and titles must be taken into consideration. The students' background knowledge about the topic must be determined and they should explain what they are interested to know about the topic. Students find the topic of each paragraph through skimming their headings and graphic illustrations. The summary or final section of the text should be read.

Question. In order to establish goals for the reading students must use the questions. Therefore, they should change the headings, sub-headings, and graphics into questions. Write down unknown words for determining their meanings.

Read actively. Write answers for the questions which produced in the previous step through making use of content clues to guess the meanings of unknown terms.

During the reading session, produce other questions through concentrating on unclear terms and phrases, as well as questionable passages.

Recite. Without referring to the previous text and notes, try to remember the responses and the information from the book. Recite the responses to questions aloud or in written type. Read again the passage for the questions which are remained unanswered.

Review. Try to answer the main questions (by using titles). In order to organize information, review all the sections of the chapter and also the answers. Try to write a summary about what you learned and describe the main ideas through making use of graphic organizer, group discussion, or paragraph summary.

2.4.3 KWL Strategy (Know, Want and Learn)

Ogle (1986) defined this strategy as a framework for linking background knowledge to what students actively learn by using three steps of know, want and learn. Throughout this strategy, students first think about the topic and try to remember what they know about it. Then, they think about the information they want to know about the topic. And at the end they actively start to learn new things about the topic. The readers and students may involve with this kind of activity individually or with a little supervision from the teacher. This activity can be also a teacher-directed one (Totten, Johnson, Morrow, and Briegel, 1999).

The procedure of the strategy: (a) Select a topic of the study. (b) Make a table contains of three columns and two rows — a row for headings, a larger row for writing. The first column should be labeled with a **K** which stands for “What I **Know**”, the second column should be labeled with a **W** which stands for “What I

Want to know”, and finally, the third column should be labeled with an **L** which stands for “What I **Learned**”. (c) In the K column the students’ thoughts about the topic must be written. (d) In the he W column, after brainstorm what students are eager to know about the subject is written. (e) Study the subject. In this step, the students can read a section, do some research, or contribute to any understanding strategy. Then, the students talk with each other and in the L column they explain what they have been learned (Ogle, 1986).

2.4.4 DRTA Strategy (Directed Reading Thinking Activity)

DRTA encourages active reading and better understanding. This strategy is known as a versatile strategy. The steps of this strategy includes: predicting, reading, and proving (Medina, 2007).

The procedure of the Strategy: (a) ask students to look at graphics and illustrations and read the title and initial paragraph in order to preview the story. (b) Students are expected to predict the next section of the story. (c) Students should read the story to a part that there is a logical break in the action. (d) Directing the discussion which is made by students in the way of their accurate predictions. Students can mention parts of the story which verify or refute their predictions. (e) Repeat the same procedure until the whole story is read (Medina, 2007).

2.4.5 Think-Pair-Share Strategy

This strategy is known as a discussion strategy. It can be used as a pre-reading activity; a strategy of problem-solving, and also as a follow-up activity. Throughout this strategy, each student is an active participant (Santa, Havens, & Maycumber, 1996).

The procedure of the Strategy: (a) In order to use this strategy, teacher must begin the reading section by suggesting a subject or asking a question. (b) Students have a few minutes to think about their responses. (c) Teacher pairs the students and they are expected to talk about their ideas. (d) At the end, class discusses on and makes conclusions for the story as a whole group and shares their overall ideas about the topic (Santa, Havens, & Maycumber, 1996).

2.4.6 Sticky Notes Strategy

Santa and his colleagues offered this strategy in 1996. Sticky notes strategy used for marking different units of a text such as difficult, dominant, or clear units so that the reader can return to them easily.

The procedure of the Strategy: 1. For narrative or fiction texts: (a) Students are asked to read the text and individually and place sticky notes wherever they think they need to talk about or in the sections they have questions. Students also can place sticky notes in the sections they enjoy most. (b) Continue the process by asking the students to explain why they chose selected units (Santa, Havens, & Maycumber, 1996).

2. For informational/expository texts: (a) Students are asked to read the content area text individually and place sticky notes in the units they need to discuss. Students can also add some information to the text by using pictures, charts, diagrams, explanations, etc. these additional information could be from students background knowledge about the topic of the text. (b) Students discuss about the sections they have marked by sticky notes and share their questions or additions with each other. At the end, teacher asks students to explain why they choose each section (Santa, Havens, & Maycumber, 1996).

2.4.7 Think-Aloud Strategy

According to Davey (1983), think aloud strategy enables students to understand the mental processes readers involve in while deriving meaning from the text. During this strategy, the teacher represents a model of a skilled reader and reads aloud a text, and then students observe how he/she thinks while reading.

The procedure of the Strategy: (a) Teacher explains that the reading is a complicated process and it encompasses thinking and making sense with the text. (b) Teacher chooses a reading text which is partly difficult to understand for students. The text must have unknown vocabulary, unclear explanations, or confusing details. (c) There must be pre-determined questions in order to show how a reader thinks and asks themselves while they are reading a text. d) When the teacher reads aloud, the students read the same text silently. Teacher verbalize his thoughts during the reading process, ask pre-developed questions, and try to use the process which is prepared to solving comprehension problems. (e) With the use of different voice tones, students will be able to distinguish between teacher's thinking and reading. (f) Some behaviors or strategies to model include:

- Making predictions (e.g., "From what he's said so far, I'll bet that the author is going to give some examples of poor eating habits.")
- Describing the mental pictures you see (e.g., "When the author talks about vegetables I should include in my diet, I can see our salad bowl at home filled with fresh, green spinach leaves.")
- Creating analogies (e.g., "That description of clogged arteries sounds like traffic clogging up the interstate during rush hour.")
- Verbalizing obstacles and fix-up strategies (e.g., "Now what does *angiogram* mean? Maybe if I reread that section, I'll get the meaning from the other sentences

around it. I know I can't skip it because it's in bold-faced print, so it must be important. If I still don't understand, I know I can ask the teacher for help.")

(g) After modeling the strategy, teacher asks students to repeat the steps of the strategy in small groups, in pairs, or independently (Davey, 1983).

2.4.8 QAR Strategy (Question-Answer Relationships)

There are two types of questions in QAR (Question-Answer Relationships): questions which are in the book, and questions in the readers' head. These two question types divided into four parts of "Right There", "Think and Search", "Author and You", and "On My Own". This kind of classification of the questions creates a unique approach for reading texts and asking and answering questions. This strategy is an opportunity for students to think about the need of considering their background knowledge and the information in the reading text at the same time. According to Raphael: "QAR is the foundation of three reading comprehension strategies which are; locating the information, defining the text structures, and determining the time that any inference would be required" (Raphael, 1986).

The procedure of the Strategy: 1. When first introducing this strategy and for students in second grade and below:

(a) Begin with the two broad categories, *In the Book* and *In My Head*. (b) Select a short passage with one or two related questions, one an *In the Book* question and one an *In My Head* question, to model the strategy. Present the text on chart paper or on the overhead, and read it. (c) Have students answer the related questions. As answers are given, focus on locating the information, using the text. (d) For an *In the Book* question, continue to prompt students with questions, such as "How do you know that answer?" and "Does the text tell us the answer?" (e) For an *In My Head*

question, begin with questions such as “How do you know?” and “Does the text tell you?” (f) When students have recognized that the answer does not come from the story but from what they already know, say something like: “You used a good source of information for that answer – your own experiences.”

2. When students have clearly understood the differences between *In the Book* and *In My Head*:

(a) Expand upon each category, explaining the different types of questions. Focus on the two categories, *In the Book* and *In My Head*, one at a time. (b) *In the Book* questions can be divided into two subcategories. In the first, *Right There*, the answers to the questions can be found stated explicitly within a single sentence. In the second, *Think & Search/Putting It Together*, the information is found in different parts of the text and needs to be put together by the reader. (c) *In My Head* questions can also be further divided into two types of questions, *On My Own* and *Author & You*. The answers to *On My Own* questions are not in the text at all. The reader can answer the question without reading the text, using only his or her own experience or, perhaps, another text. The answers to *Author & You* questions are not explicitly stated in the text. The reader needs to think about what he or she already knows, what information the author has put in the text, and how these two sources of information fit together in order to arrive at the answers. (d) Place these descriptions of question types on overheads, bulletin boards, or handouts for students to refer to as they read and answer questions. (e) Emphasize strategies for seeking information, not merely identifying question categories. (f) Model these four types of questions as you did for the two broad categories.

2.4.9 Selective Underlining Strategy

Santa and his colleagues (1996) states that, selective underlining strategy help the students to comprehend the meaning of the text better and also enables them to organize the information in the ext (Santa, Havens, & Maycumber, 1996).

The procedure of the Strategy: (a) Teacher explains to students that using selectively underlining units of a passage is helpful for understanding the passage. Students underline the passage and try to organize information in the text. (b) The way of underlining can be modeled by the teacher. First, read the text, and then read it again and start to underline, not as the full sentences, but words and phrases that are more important and have the key concepts. Teacher notes key concepts with numbers or other symbolizations. For key concepts, teacher comes up with small subject names, and writes them in the margins. (c) Then teacher underline key concepts and specific parts with different colored markers. For example, key concepts may be in green while specific parts are in yellow. (d) When key points are not clear, teachers can generate their own key points, mark them in the margins, and color appropriately (Santa, Havens, & Maycumber, 1996).

2.4.10 SCROL Strategy

Among several strategies which are generated to help learners with various steps of approaching a text, one is the SCROL strategy (Grant, 1993). This strategy contains five steps which are: i) survey, ii) connect, iii) read the text, iv) outline, and v) look back. According to Hedge (2008), SCROL is a totally effective procedure of using headings in order to understand the meaning of the text better. The steps of SCROL strategy are illustrated in the following figure which is generated by Reid & Lienemann (2006):

Survey

- In the assigned text selection, read each heading and subheading.
- For each heading and subheading, try to answer the following questions:
 - What do I already know about this topic?
 - What information might the writer present?

Connect

- Ask yourself, how do the headings relate to one another?
- Write down the key words from the headings that might provide connections between them.

Read the text

- As you read, look for words and phrases that express important information about the headings.
- Mark the text to point out important ideas and details.
- Stop to make sure that you understand the major ideas and supporting details.
- If you do not understand, reread.

Outline

- Using indentions to reflect structure outline the major ideas and supporting details in the heading segment.
- Write the heading and then try to outline each heading segment without looking back at the text.

Look back

- Now, look back at the text and check the accuracy of the major ideas and details you wrote.
- Correct any inaccurate information in your outline.
- If you marked the text as you read, use this information to help you verify the accuracy of your outline.

Figure 2. 1. Steps of SCROL Strategy, (Source: Reid & Lienemann ,2006)

2.5 SCROL as an Effective Reading Strategy

SCROL strategy is a comprehension strategy which is designed for middle and higher grade students in order to assist them in understanding of various reading

materials. This strategy helps students through encouraging them to use *text headings* and *sub-headings* for a better comprehension and finding and recalling major information of the text (Reid & Lienemann, 2006).

Among several reading comprehension strategies, SCROL is known as one of the most useful strategies since it carries out different practices in order to have better comprehension and help students to read successfully and independently. SCROL strategy includes a number of reading comprehension practices such as activating prior knowledge, asking questions, taking notes, re-reading, sorting and organizing information, identifying writer's purpose, identifying major ideas and supporting details, making predictions, and making summaries. Therefore, SCROL is an effective reading comprehension strategy which progress gradually from one stage to the next and in each stage it involves different practices in order to make a better understanding. Using SCROL strategy in the classroom helps students to reinforce their comprehension of various reading texts.

Another significance of using SCROL strategy during the reading process is its focus on text headings and sub-headings as effective factors for reading comprehension. Grant (1993) mentions four reasons which show how text headings can facilitate the reading process which are the activation of background knowledge by triggering schema, highlighting relations between concepts, providing content clues in order to recovering information, and providing an incentive appeal for reading.(Grant, 1993).

According to Grant, although text headings are important factors for reading comprehension, still the students need to know the reading strategies in order to make use of text headings. By using SCROL strategy students can monitor their

understanding before, during, and after reading process. In short, there is an important point that is the students are required to know reading strategies. Otherwise, they can't apply SCROL strategy.

2.5.1 Text Headings and Sub-Headings

According to Hanson and Padua (2011), headings and subheadings are usually informational sections of the text which encourage readers to pay attention and concentrate on the reading topic. Students can also set purposes for what they read by converting subheadings into questions (Hanson & Padua, 2011).

The location of headings and sub-headings in the text is commonly at the top of the page or paragraphs and most of the times they are printed larger than the text itself. Text headings and sub-headings summarize the subject or the paragraph in one or two words. Text headings usually refer to the main points made by the author while sub-headings refer to the organization of the author's thoughts and the relationship between each section of the text. Both headings and sub-headings can be used as guidelines for the reader.

As stated in literature, text headings provide signs about the significance of the text information, and they can affect recall. (Eysenck & Keanne, 1990; Hartley, 1987; Waller, 1982). These signs are inserted in the text, and they underline the text's structure, main topics in the text, or both (Meyer, 1984).

Referring to Kozminsky's report in 1997, headings, subheadings and titles in any written passage can help comprehension. They perform like "advance organizers" which help to the activation of background knowledge and link it to the new information. Looking at text headings and using text signals which are provided in

any text, formerly announce the contents of the text and reveals the relationships between them. In addition, Kozminsky (1997) also states that, if there is no previous knowledge about the text topic in the readers' mind, text headings and sub-headings can serve as an anchor point in the readers' memory about the upcoming organization of the text information (Kozminsky, 1997).

As a result, Meyer (1975) states that, the text heading and subheadings should facilitate the comprehension process by forming a hierarchical framework in reader's memory that will help the placement of received information. Meyer also links text heading and subheadings with a kind of signaling discourse knowledge which prematurely displays abstracted content information taking place later in the text.

2.5.2 Schema Theory and Reading Comprehension

In order to understand the interaction of main factors affecting the comprehension process, linguists, cognitive psychologists, and psycholinguists have used the concept of schema. A schema is a hypothetical mental structure for representing generic concepts stored in memory (Rumelhart, 1980). It's a kind of framework, outline, or script which is generated through experience with people, objects, and events. Schema can be seen as the structured background knowledge, which leads readers to imagine or predict aspects in their understanding of reading texts (Yule, 1996). Bartlett (1932) believed that "understanding and remembering occur in the contexts of people's previous experiences and information." He used schema referring to "an active organization of past reactions, or past experience."

As Cook (1989) states "The mind stimulated by key words or phrases in the text or by the context activates a knowledge schema." In this regard, Cook implies that readers are not necessarily dealing with conscious processes, but rather with automatic cognitive responses given to external stimuli. This view simplifies that

schemata are activated in one of two ways: (i) new information from the outside world can be cognitively received and related to already known information stored in memory through retrieval or remembering. In this case, new concepts are assimilated into existing schemata which can be altered or expanded; (ii) new information can be represented by new mental structures. In this case, in absence of already existing schemata, new knowledge builds up new schemata.

According to schema theory, all knowledge is organized into units. Within these units of knowledge, or schemata, is stored information (Anderson, 1984). In this regard, schemata represent knowledge about concepts: objects and the relationships they have with other objects, situations, events, sequences of events, actions, and sequences of actions.

Gipe (1998), states that individuals have schemata for everything. Long before students come to school, they develop schemata (units of knowledge) about everything they experience. Schemata become theories about reality. These theories not only affect the way information is interpreted, thus affecting comprehension, but also continue to change as new information is received.

As stated by Rumelhart (1980), “schemata can represent knowledge at all levels- from ideologies and cultural truths to knowledge about the meaning of a particular word, to knowledge about what patterns of excitations are associated with what letters of the alphabet. We have schemata to represent all levels of our experience, at all levels of abstraction. Finally, our schemata are our knowledge. All of our generic knowledge is embedded in schemata.”

Reading purposes can also be a bridge between the students' schemata and the new incoming knowledge. According to Harris and Smith (1987) a reading purpose arranges the perception, association, and organization of the reader's mind. Thus it plays an important role in determining the specific meaning extracted and kinds of associations, analysis, and judgments made. Reading purposes can be either made by a reader himself or provided by outside sources, such as a teacher.

Regarding to schema theory and its importance in reading comprehension, Carrell and Floyd (1987) maintain that the language teachers must provide the students with appropriate schemata they are lacking, and must also teach the students how to build bridges between existing knowledge and new knowledge. Accordingly, the building of bridges between the student's existing knowledge and new knowledge needed for text comprehension. Therefore, teaching reading comprehension strategies such as SCROL strategy can help the students to build bridges between their prior knowledge and new text information.

2.6 Reading Comprehension Assessment

The main purpose of reading is understanding. Comprehension and successful understanding help students to attain information, to communicate, and to get effective academic achievements. Successful reading comprehension contains reading the words, obtaining the meaning of the words, and figuring out the sense of sentences. A meaningful reading comprehension involves local and global coherence that means integrating the meaning of sentences and the relationship between them as a whole. In this regard, readers have to involve their background knowledge to the reading process.

According to Rhodes and Shanklin (1993), comprehension is a mental process, and the assessment of any reading comprehension must be inferred by strategies to make it more visible. There are various strategies and methods to assess reading comprehension such as written retellings, reading and thinking aloud, answering questions, multiple choice tests, cloze tests, fill in the blanks, questionnaires, interviews, and discussions.

However, before having any reading comprehension assessment, it is important to teach comprehension strategies to students. Several researches indicate that it is more profitable for teachers to focus on one reading comprehension strategy and provide students with occasions to develop that strategy. According to this kind of instruction, the teacher first describes the strategy completely as a set of conscious steps which are used to have a better understanding of the text. Then the teacher and students together model the strategy and try to read the text and apply the steps of the strategy in collaboration. At the end, the students must be able to use the strategy independently (Duke and Pearson, 2001).

Generally, the type of the assessment to be applied for students' reading comprehension differs due to various written text types. According to the literature, the most common measures for reading comprehension assessment are cloze tests, open-ended questions, short answer, and multiple-choice tests. However, while each of the assessment techniques has significant effects on the students' scores, Statman (1988) determines that having a multiple-choice question with distracters is the most clear, authentic, and valid way of assessing the reading comprehension.

According to Wolf (1993), using multiple-choice questions is a regular method of assessing students' comprehension of reading text because of its familiarity to the subject and being easy to assess and score. The items of multiple-choice tests are fashionable since they provide examiner with the opportunity of controlling students' thought process during answering the questions (Alderson, 2000). In addition, Weir (1990) states that multiple choice questions popularity is because of their being totally objective. And it is also worthy to note that multiple-choice tests are generally used for reading comprehension assessments since they can be marked reliably and economically.

2.7 Related Empirical Studies

Researchers are interested in reading strategies since they reveal the reader's interaction with the written materials and comprehension process (Carrell, 1989). There are many studies that attempt to indicate the importance and usefulness of reading comprehension strategies. Besides, some studies have been conducted to evaluate how reading strategies such as SCROL can be affective on reading comprehension. On the other hand, many researchers focus on measuring the impacts of teaching reading comprehension strategies on reading improvement. Commonly, the outcomes of the studies indicate that reading strategies are teachable, and when the students' metacognitive knowledge about the use of strategies developed, they would read more successfully (Carrell, 1998; Farrell, 2001; Zhang, 2008; Macaro & Erlar, 2008).

For example, Istifci (2009) in her research observed that students are more interested and concentrated when they are using reading comprehension strategies in their classes. Likewise, Kantarci (2006) investigates students' awareness of reading

comprehension strategies and the effect of explicit strategy instruction on their performance. In her study, it is found that explicit strategy instruction had a positive impact on students' strategy applications. She also mentions that teaching reading strategies to students will facilitate their reading comprehension process and raise their consciousness. Thus, educators should place more emphasis on teaching reading strategies to students in order to have self-confident strategic readers.

For this reason, Uzunçakmak (2005) conducted a research about successful and unsuccessful readers and investigated the use of generic reading strategy as reported by the students. The findings of the research also revealed that reading strategies are mostly used by successful readers. In addition, it is observed that readers who used strategies during their reading process were able to determine the most important parts of the text which can help them to understand better. In this respect, the strategic readers were more aware of what to concentrate and what to skip. They paid attention to the parts that they found necessary for comprehension.

Specifically, the use of SCROL strategy and the effect of text headings on reading comprehension have been examined by Brooks (1983). In this study, after an instruction session in which students were taught to use text headings, it appeared beneficial for text comprehension and the main result was that the students became informed of the presence of headings in the text.

Relatively, Krug (1989) conducted an experiment about the effect of text headings on readers' recall of the text. In this experiment, the results showed that headings had a facilitative impact on students' text comprehension and recall. In the other study, Sanchez & Lorch (2001) conclude that students who received training to use text

headings while reading have better comprehension than the students who read the text in the traditional way.

Ibrahim (2011) in the study about SCROL strategy observed that the reading comprehension of the students who used the strategy is higher than others. Calvin (2009) also uses SCROL strategy for the students which were not able to read texts of their level. In this study Calvin concludes that SCROL assisted the students to concentrate on the text, to realize the text organization, and to increase text comprehension. Furthermore, motivation was another benefit of using SCROL strategy in this study (Calvin, 2009).

All the mentioned investigations prove the effectiveness of using text headings and sub-headings in reading comprehension process.

This study investigates the effect of the text headings and sub-headings on reading comprehension under the direction of SCROL strategy. There are few studies that specifically investigate the SCROL strategy effects. Therefore, studies like this may be useful in conducting English language reading classrooms which are using SCROL as reading strategy.

Chapter 3

METHODOLOGY

3.1 Introduction

As mentioned in the first chapter, this study was an attempt to investigate whether text heading and subheadings had any effect on students' reading comprehension. It was hypothesized that EFL learners can process the reading with ease if they get a specific reading strategy -SCROL- in which the central focus is on the text heading and subheadings. That is, considering text heading and subheadings may facilitate the process of comprehension of reading texts. In this chapter the information about research design, participants, and data collection procedure is given in detail.

3.2 Research Design

This study was conducted as an experimental study design. Pre-test, randomization, instruction, and post-test were used in this study. The participants of the study were selected through a standard language proficiency test, KET (Key English Test) from Cambridge ESOL exams as a pre-test. Then the participants were randomly assigned to two different groups as experimental and control groups. The students of the experimental group were taught through the application of SCROL strategy, and the control group followed the course in the traditional way. Finally, the participants were post-tested to investigate the difference between the performances of learners in two groups. In the current study, the students' reading comprehension ability was the dependent variable and the SCROL procedure was the independent variable.

3.3 Participants

To accomplish the objectives of the present study, the selected participants were 80 intermediate-level Iranian high school female students. These students were at their final year of school education of Taleqani high school (Iran) and they were all 18 years old. All the participants in this study were female students due to the context-related sensitivity in Iranian high schools. The students passed same courses of English during their school education and also passed different communication courses in various English language institutes. Therefore, the participants shared almost the same educational background.

3.4 Data Collection Procedure

The procedure of collecting data for this study includes pre-test and post-test. By utilization of pre-test, the students' homogeneity and general English proficiency level were determined in order to divide them into control and experimental groups. Accordingly, after the treatment session of teaching how to use SCROL strategy to the students of the experimental group, a post-test was administered to both experimental and control group in order to assess the possible difference between the students' reading comprehension. In this section, the details of data collection procedure, treatment session, and instruments used in the study are discussed in detail.

In line with the purposes of the study, the participants include 80 intermediate-level Iranian high school female students who were at their final year of school education sat for a general English proficiency test, KET (Appendix A). In the current study, KET was used as a pre-test in order to ensure the homogeneity of participants prior to the treatment. This test included 60 questions: 20 vocabulary, 20 structure, and 20

reading comprehension questions. To each correct response one point was assigned so that the maximum possible total pre-test score was 60. The allocated time for the test was 70 minutes. The scores of the students participated in this test ranged from highest to lowest. Then 10 of the participants who got the highest scores and 10 of the participants who got the lowest scores were excluded and the 60 participants who got intermediate scores which ranged from 32 to 54 remained to include in this study. In other words, by administrating the pre-test to the participants, 60 out of 80 were placed at the intermediate level and the rest of the 20 students were not included in the study.

Following this administration, 60 students were randomly assigned into one experimental and one control group, each of which contained 30 students. Participants in the experimental group received a specific reading strategy (SCROL) in which students were taught how to use heading and subheadings to comprehend the text more effectively and easily. For this treatment session, reading comprehension passages were those that were in the beginning of each lesson of students' schoolbook. That is, students in the experimental group were taught their lessons by following the SCROL strategy steps while students in the control group followed normal school procedure which was traditional reading without using any specific strategy. The reading passages selected from the students schoolbook contains comprehension questions in forms of open-ended, true/false, and fill in the blanks. Accordingly, the topics of reading passages were factual or anecdotal. The reading passages were also authentic and attractive with the themes of education, memory, and Olympic Games. The length of the reading passages varies from 5 to 7 paragraphs in one page.

During the treatment session, for participants of the experimental group, the teacher first gave some information about the steps included in the SCROL strategy and explained that how students can use text headings and subheadings to help them understand the message of texts. Then she gave each student a piece of paper (Appendix D) containing format and content of SCROL procedure. The SCROL strategy was made clear to the students as follows:

In the first line under the title, is written Survey for letter S of SCROL. You should read the title of the text and then the heading and subheadings of it. For all the heading and subheadings, you are expected to answer these questions written on your papers: -what do I already know about this topic? -what information might the writer present?

Now look at heading and subheadings in your reading text at your book. Everyone asked these questions herself and answered to them individually. After 3 minutes, the teacher called students to pay attention to her.

She explained the next step which was Connect stage: in this part, after you read the headings, ask how do the headings reflect one another? Then write basic terms of the headings which might provide links among the headings. After passing 5 minutes to do objectives of this section, the teacher called them again and said: now start reading the text from the first heading segment. Don't forget, that headings may provide hints about the main information in the text. When reading each section, look for terms and statements which express important information about heading. In order to note the important details, mark the text as you read (underline, highlight, and make notes in the margins). Before moving to the next heading segment, stop in

order to make sure that you get the main ideas and supporting details. Read again, if you do not understand. Then, the teacher gave 7 minutes for reading the text and then she wanted students to listen to her to continue the procedure.

In the fourth step which was the Outline stage, the teacher asked the students to write an outline by using indentations to reflect the structure, outline the main ideas and supporting details in the heading segment. She asked them to write the heading and then to try to outline each heading segment without looking back to the text. For writing outline, students had 5 minutes.

Then the teacher as the last step of the procedure explained what students should do in the Look back step: now, look back to the text and check the accuracy of the main ideas and details you wrote. The inaccurate information must be corrected. In order to help to verify the accuracy of your outline, use those parts of the text that you marked when you read. Additionally, the students were provided with oral and written feedback during the treatment, and the teacher defined the meaning of each word that was unknown for students. The meaning of unknown words was also provided for students in order to refer to. (Appendix C)

This procedure was carried out for 3 sessions for the experimental group; each step of the procedure took 4 minutes to be done while students read the text simultaneously. At the same time, the control group started reading task without any specific procedure. First, they read the reading texts and then answered the questions following the texts.

For the purpose of achieving the goal of this study, the experimental and control groups were given a reading comprehension test as a post-test (Appendix B) in order to investigate the effect of treatment (teaching SCROL procedure steps). This post-test involved eight reading passages with 40 comprehension questions, so it was administered in two different sessions. The reading passages were adapted from the reading book: *Techniques for Effective Reading* (Farhady, 2005). Each passage in this test involved five multiple-choice reading comprehension questions, four options for each, with the total number of forty questions. These eight reading passages contained authentic information regarding world's people, man's taught power, crystal palace, water and electricity, a particle in the universe, Tsar Peter's Aims, heat transfer, and airport workers. In addition, greater care went into the choice of passages to be relevant to the participants' daily life in order to read them eagerly. The post-test was also based on students' level of English proficiency. Moreover, in selecting these texts two other teachers were contributed and reviewed the texts to give helpful ideas and suggestions in order to have valid and appropriate texts with the objectives of this study. The experimental group had to follow the SCROL procedure for reading these texts while the control group took their post-test following traditional procedure. The post-test was administered in two sessions that is, the first four passages in one session and the next four passages in the next session. The time limit for completing the test sheet was set as 45 minutes for each session. To each correct response in each of the two post-test administration sessions, one point was assigned and the two total session scores obtained were combined so that the maximum possible total post-test score was 40.

3.5 Statistical Analysis

In this study, the total scores of two groups in KET as pre-test, the reading part of KET as pre-test, and post-test were computed and converted to 20 percent total scores prior to run statistical analyses. Since the score system in Iranian educational institutions is out of 20. First, a *t*-test was conducted for pre-test scores so that the homogeneity level between experimental and control groups was determined. Then, in order to find out if there is any statistically significant difference between post-test results of the two groups another *t*-test was applied. Expert judgment was used in order to ensure approximately equal test difficulty of the pre-test and post-test.

The reliability of both pre-test and post-test was found out through applying Kuder Richardson formula (KR - 21) which is used for estimating the internal consistency. In addition, before applying *t*-test for both pre-test and post-test, the normality of the data was evaluated since it can entirely affect the accuracy of the test. In this regard, the kolmogorov-smirnov test was used to check the normality of data distribution for both pre-test and post-test.

The equality of variance in both experimental and control groups is also a required condition for conducting *t*-test. Therefore, Levene's test was used in order to assess the equality of variances for these two groups. Next chapter is devoted to showing the statistical analyses of this study in detail.

Chapter 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

This section outlines the statistical analysis of the data through the assessment of students' reading comprehension ability as dependent variable. In order to test the hypothesis, a series of statistical analyses containing both descriptive and inferential ones were run. It would be helpful at this step to restate the purpose in this study prior to explaining the data analyses. This study was conducted to see whether there was a progress in the reading comprehension achievement of EFL learners by learning how *heading* and *subheadings* of reading texts can facilitate comprehension under the directions of SCROL procedure, which is a reading strategy suggested by Grant (1993). In order to investigate such a progress, this survey compared the performance of the similar groups of students without any treatment.

To reiterate the process of this research, it has to be mentioned that the study was initiated with administrating a standard language proficiency test (KET), as a pre-test in order to homogenize the participants. As mentioned in chapter 3, 80 intermediate-level Iranian high school female students sat for this pre-test. By administrating this Placement Test to the participants, their level of linguistic competency was assessed in order to select the students with similar levels. Therefore, 60 out of 80 students were placed at the intermediate level and the rest of the 20 students were not

included in the study. Selected participants were randomly assigned to two groups (experimental and control) containing 30 participants for each group.

The study proceeded with teaching SCROL strategy of using text headings and subheadings in the treatment period for the experimental group and having the same reading texts for the control group in a regular way. At the end, all participants of the study were given another reading comprehension test in order to survey their achievement.

To discover whether using of the SCROL procedure had any significant effect on the students' reading comprehension, a series of analyses were carried out which are particularly presented and discussed here in this chapter.

4.2 KET as Pre-test

Table 4.1 presents the descriptive statistics for KET as pre-test.

Table 4. 1. Descriptive statistics for KET as pre-test scores

Groups	N	Mean	SD	Minimum	Maximum
Control	30	13.444	1.664	10.67	16.33
Experimental	30	13.733	1.991	10.67	18.00

As can be seen in Table 4.1 there was very small difference between the means and it might have been an indication for language competence homogeneity of these two groups of research participants; however, this had to be verified through an independent samples *t*-test.

The reliability of KET as pre-test scores was estimated as well (Table 4.2). By applying KR-21 formula, the reliability of KET as pre-test was evaluated in order to ensure that the test measured accurately and consistently. According to Table 4.2, the

reliability of KET as pre-test came out to be 0.70. This coefficient indicated that KET as pre-test had a reasonably high reliability.

Table 4. 2. Reliability of KET as Pre-test Scores

$k/k-1$	$x(k-x)$	kv	$x(k-x)/kv$	$1-x(k-x)/kv$	$[k/(k-1)]*[1-x(k-x)/kv]$
1.02	784.08	2538.00	0.31	0.69	0.70

The normality of the collected data on the KET as pre-test was also checked to see whether it was normal. The normality of the distribution of scores was approved through Kolmogorov-Smirnov test. In Table 4.3, the significance level of the test for both of the groups is above 0.05, which means the normality of the distribution between the two sets of scores of two groups are similar.

Table 4. 3. One-Sample Kolmogorov-Smirnov Test for KET as Pre-test Scores

Groups	N	Kolmogorov-Smirnov z	Asymp. Sig. (2-tailed)
Control	30	0.502	0.962
Experimental	30	0.604	0.858

For the purpose of comparing KET as pre-test scores of both experimental and control groups an independent samples *t*-test was run and the results were interpreted. A required condition to do such a comparison is the equality of variance in both of groups. So the homogeneity of variance was checked by Levene's test (Table 4.4) and the Levene's statistic was not significant, so the homogeneity of variance was confirmed. ($P > 0.05$)

Table 4. 4. Test of Homogeneity of Variance for KET as Pre-test Scores

Levene Statistic	df	sig.
0.766	58	0.385

In order to check the nonexistence of a prior difference between the two groups, an independent samples *t*-test was used (Table 4.5). The mean of KET as pre-test scores of the control group was 13.44 and for the experimental group was 13.73 and the

significance level of test was 0.544. As the significance level was higher than 0.05, this meant the groups did not have any significant difference. Therefore, the results show that the students of both experimental and control groups have similar linguistic competency.

Table 4. 5. Independent Samples t-test for Equality of Means for the KET as Pre-test

Groups	N	Mean	SD	Mean Difference	t Statistic	Sig. (2-tailed)
Control	30	13.444	1.664	0.288	0.456	0.544
Experimental	30	13.733	1.991			

4.3 Reading Part of KET as Pre-test

Table 4.6, indicates the descriptive statistics for reading part of KET as pre-test. As can be seen in Table 4.6 there was very small difference between the means and it might have been an indication for reading ability homogeneity of these two groups of research participants; however, this had to be verified through an independent samples *t*-test.

Table 4. 6. Descriptive Statistics for Reading Part of KET as Pre-test

Groups	N	Mean	SD	Minimum	Maximum
Control	30	13.600	2.472	10.00	18.00
Experimental	30	13.633	2.566	10.00	19.00

The reliability of the reading part of KET as pre-test scores in this administration was also estimated by applying KR-21 formula. The reliability of reading part of KET as pre-test was evaluated in order to ensure that it measured accurately and consistently.

According to Table 4.7, the reliability of reading part of KET as pre-test came out to be 0.30. The coefficient was rather low, but it was quite normal since there were fewer numbers of questions in the reading part of KET than KET itself and

considering the rule of thumb that the whole is always greater than its parts. Therefore, reading part of KET could be assumed to be reasonably reliable.

Table 4. 7. Reliability of Reading Part of KET as Pre-test

$k/k \cdot 1$	$x(k \cdot x)$	kv	$x(k \cdot x)/kv$	$1 \cdot x(k \cdot x)/kv$	$[k/(k \cdot 1)]^* [1 \cdot x(k \cdot x)/kv]$
1.05	87.04	122.20	0.71	0.29	0.30

The normality of the reading part of KET as pre-test scores was also checked to see whether it was normal. The normality of the distribution of reading part of KET as pre-test scores was approved through Kolmogorov-Smirnov test. In Table 4.8, the significance level of the test for both of the groups is above 0.05, which means the data in each sets of scores were normally distributed.

Table 4. 8. One-Sample Kolmogorov-Smirnov Test for Reading Part of KET as Pre-test

Groups	N	Kolmogorov-Smirnov z	Asymp. Sig. (2-tailed)
Control	30	0.141	0.130
Experimental	30	0.138	0.152

For the purpose of comparing reading part of KET as pre-test scores of both experimental and control groups an independent samples *t*-test was used and the results were interpreted. A required condition to do such a comparison is the equality of variance in both of groups. So the homogeneity of variance was checked by Levene's test (Table 4.9) and the Levene's statistic was not significant, thus the homogeneity of variance was approved. ($P > 0.05$)

Table 4. 9. Test of Homogeneity of Variance for Reading Part of KET as Pre-test

Levene Statistic	df	sig.
0.111	58	0.918

An independent samples *t*-test was run for reading part of KET as pre-test (Table 4. 10), in order to make sure that there was not any prior difference between the student's reading comprehension ability in both experimental and control groups. The mean of reading part of KET as pre-test scores of the control group was 13.60 and for the experimental group was 13.63. With the significance level of 0.959 the students' homogeneity specifically in terms of reading comprehension ability was approved. As the significance level was higher than 0.05, this meant the groups did not have any significant difference. Therefore, the results showed that the students of both experimental and control groups had similar levels of reading comprehension ability. In other words, according to students' homogeneity in terms of reading comprehension, any progress in experimental group's reading ability in the post-test could be attributed to SCROL strategy use.

Table 4. 10. Independent Samples *t*-test for Equality of Means for reading part of KET as Pre-test

Groups	N	Mean	SD	Mean Difference	t Statistic	Sig. (2-tailed)
Control	30	13.600	2.472	0.033	0.091	0.959
Experimental	30	13.633	2.566			

4.4 Post-test

Table 4.11 displays the descriptive statistics for the post-test. As can be seen in Table 4.11 there was some difference between the means and it might have been an indication for the positive effect of SCROL strategy use of experimental group in the post-test. However, this had to be verified through an independent samples *t*-test.

Table 4. 11. Descriptive Statistics for Post-test

Groups	N	Mean	SD	Minimum	Maximum
Control	30	13.317	2.219	9.50	17.50
Experimental	30	14.717	1.685	11.00	17.50

The reliability of the post-test, using KR-21, was determined to be 0.71. Table 4.12 shows the reliability of the post-test. This coefficient indicated that post-test had a reasonably high reliability.

Table 4. 12. Reliability of Post-test

$k/k-1$	$x(k-x)$	kv	$x(k-x)/kv$	$1-x(k-x)/kv$	$[k/(k-1)]*[1-x(k-x)/kv]$
1.03	335.47	1084.80	0.31	0.69	0.71

The normality of the collected data on the post-test was also checked to see whether it was normal. The normality of the distribution of post-test scores was approved through Kolmogorov-Smirnov test. As it is shown in Table 4.13, the significance level of test for both of the groups is above 0.05, which means the scores of two groups of participants are distributed normally.

Table 4. 13. One-Sample Kolmogorov-Smirnov Test for Post-test

Groups	N	Kolmogorov-Smirnov z	Asymp. Sig. (2-tailed)
Control	30	0.388	0.998
Experimental	30	0.484	0.973

To test the statistically significant mean difference between the control and experimental groups in the post-test, an independent samples *t*-test was run. A required condition to do such a statistical significance test is the equality of variances in both of groups. So the homogeneity of variance was checked by Levene's test (Table 4.14) and the *p* value was not significant and thus homogeneity of variances was confirmed.

Table 4. 14. Test of Homogeneity of Variance for Post-test

Levene Statistic	df	sig.
2.565	58	0.115

In order to check any possible mean difference between the two groups, an independent samples *t*-test was used. As table 4.15 shows the mean of post-test

scores of control group was 13.317 and for experimental group was 14.717, and the significance of *t*-test was 0.008. As this significance level was lower than 0.05, the mean of post-test scores of experimental group was significantly higher than the mean of control group.

Table 4. 15. Independent Samples *t*-test for Equality of Means for Post-test

Groups	N	Mean	SD	Mean Difference	t Statistic	Sig. (2-tailed)
Control	30	13.317	2.219	1.400	2.744	0.008
Experimental	30	14.717	1.685			

4.6 Pre-test versus Post-test

Table 4.16 displays independent samples *t*-test for equality of means for reading part of KET as pre-test and post-test. Through comparing the *t*-test results in reading part of KET as pre-test and post-test between two groups of participants, the significance level of 0.959 for reading part of KET as pre-test scores shows the non-existence of any prior difference between reading comprehension ability of two groups while the significance level of 0.008 for post-test scores approves the difference between reading comprehension ability of the experimental and the control groups (Table 4.16).

Table 4. 16. Independent Samples *t*-tests for Equality of Means for Reading Part of KET as Pre-test versus post-test

Reading Part of KET as Pre-test						
Groups	N	Mean	SD	Mean Difference	t Statistic	Sig. (2-tailed)
Control	30	13.600	2.472	0.033	0.091	0.959
Experimental	30	13.633	2.566			
Post-test						
Groups	N	Mean	SD	Mean Difference	t Statistic	Sig. (2-tailed)
Control	30	13.317	2.219	1.400	2.744	0.008
Experimental	30	14.717	1.685			

The statistically significant difference between the reading comprehension abilities of the experimental and the control groups occurred as a result of SCROL strategy treatment applied in the experimental group.

Chapter 5

CONCLUSION AND DISCUSSION

5.1 Introduction

As it was pointed out earlier, the purpose of the current study was to inquire the effects of teaching text headings and subheadings on the students' reading comprehension ability. More specifically, this study conducted in order to investigate if there is any significant difference between the reading comprehension of the students who used one specific type of reading strategy (SCROL procedure) and students who read the text without using any specific strategy. This chapter aims to discuss the results which have been shown in chapter four, in terms of research question and hypothesis. Afterwards, a brief summary of this study will be presented. Finally, the pedagogical implications and future agenda will be provided to close this study.

5.2 Discussion

The research question in this study was: Is there any significant difference in the reading comprehension ability of students who are taught by SCROL strategy and that of those who are taught via traditional procedure?

To answer this research question, the scores of post-test have been examined. As it was indicated, the results obtained from the reading comprehension test presented as post-test in the previous chapter showed that the experimental group performed better than the control group (Table 4.6). In other words, the group that received

SCROL strategy procedure showed some kind of superiority over the control. The betterment of the students learning was expected since SCROL provided a number of advantages which gave impacts to learners to go on with material easier and faster. Moreover, the students were provided with several different opportunities for practicing the reading process both independently or with the teacher's guidance, they become more fluent in reading.

SCROL is also one of those strategies designed to give effective solutions on reading comprehension ability. When readers follow directions of any specific strategy throughout reading process, they, in fact, organize their steps of comprehension. This finding is justified by several studies (e.g., Kinder & Bursuck, 1991; Bartell, Schultz, & Spyridakis, 2006; McAdams, 1996; Nielsen, 2000; Spyridakis, 1996). The results obtained from the current study are also in parallel with literature. Kinder & Bursuck (1991) investigated the effects of text signals that are well presented. Good headings facilitate reading comprehension. Results of this study indicated that giving prior information through text headings and subheadings may become a useful tool in reading comprehension. Bartell and his colleagues (2006), in a study worked on the effect of heading frequency on comprehension of reading texts, and they found that the absence of well-selected headings would have negative effects on students' reading comprehension. They concluded that having well-selected headings can direct readers' mind to the main message of reading text.

In this study, especially in the experimental group, after the SCROL procedure, the students have got the text meaning relationship and moreover, they were motivated. Also, the results showed that, they have been better in terms of success compared to the control group.

According to McAdams (1996), the general point of view about text headings and sub-headings is that they are useful since they introduce the subject of the text to the readers and help them to create schemata as well as orienting readers who are scrolling through the text. Therefore, the text headings and subheadings play an important role in facilitating learners' reading comprehension ability and the results of the present study also showed that text headings and subheadings enhance learners' reading comprehension by following a reading strategy steps (SCROL) which guide learners how to use these headings and subheadings.

5.3 Summary

This study was conducted to find out if there was any significant difference between the performance on reading comprehension of students who used the heading and subheadings (following SCROL procedure) and that of those who were taught via traditional method (reading and answering the questions).

This study was conducted with 80 intermediate students in Taleqani high school. They were all Persian native speakers aged 18. First, a general English proficiency test was administered to all of these students in order to determine their level of proficiency. For accomplishing the goal of this study, 60 students have been chosen among 80, and the rest of the students were excluded from the study. Then they were randomly assigned to two groups (experimental and control). By running *t*-test, it was made certain that the two groups were homogeneous in their language performance.

The experimental group received reading comprehension instruction by following the SCROL procedure, using headings and subheadings of texts as a major step in text

comprehension while the control group followed traditional method. They read the text and then answered the questions. For participants of the experimental group, the teacher gave some information about the steps included in the SCROL strategy and explained that how students can use text headings and subheadings to help them understand the message of texts. The reading periods carried out for 3 sessions for both the experimental and the control groups.

To investigate the effect of treatment (teaching SCROL procedure steps), the experimental and control groups were given a reading comprehension test as a post-test. This post-test involved eight reading passages with 40 comprehension questions, so it was administered in two different sessions. That is, the first four passages in one session, and the next four passages in the next session was administered and then the scores of two sessions gathered. The experimental group followed the SCROL procedure for reading these texts while the control group took their post-test following traditional procedure. The post-test was based on students' level of English proficiency, and the texts which were used in it were about daily life topics.

In conclusion, the results obtained from the post-test according to Table 4.6, showed that the experimental group performed better than the control group. With respect to the aim of the study, it was found that there was a significant difference between the performance on reading comprehension of students who followed reading strategy (SCROL) and the control group. The study found that the experimental group which was provided with a reading strategy read easily and more comprehensibly than the control group.

5.4 Pedagogical Implications

Although there are several publications devoted to the subjects about foreign language reading comprehension ability, still many students have not sufficient information about the reading process and the role of reading strategies.

In this regard, as it was mentioned earlier this study intended to investigate the effects of teaching text headings and subheadings on reading comprehension. Findings of the study supported the belief that giving prior information of the text through text headings and subheadings can have a large impact on reading comprehension. Text headings can provide background knowledge for readers to activate necessary information to understand the text.

Accordingly, the main implication to be drawn from this study is that students need to activate prior Knowledge of the topic before they begin to read. Moreover, teachers can give at least a few clues to the students who have not enough background knowledge about the topic in order to help them to interpret the text better. In this study, such activation was done through using text headings and subheadings by following specific reading strategy steps (SCROL). Asserting the main points of the text, providing readers with the meaning of unknown words, and posing signpost questions prior to the task of reading can lead, to a great extent, to success in their comprehension.

The other implication of this study for language teachers is to take care of reading strategies which proved to have positive effects on reading comprehension. As mentioned in chapter two of the present study, there are many different reading strategies which are all helpful. Language teachers should be aware of such strategies

to facilitate learners' reading comprehension. Finally, another important implication is again for language teachers to pay specific attention to text headings and subheadings because as in this study proved, the text headings play a crucial role in activating learners' background knowledge.

To sum, the teachers' major role in teaching reading skills is to recognize the importance of activating learners' prior and relevant knowledge in such a way that the materials are easily assimilated into the learners' existing field of knowledge. Since comprehending a text is an interactive process between readers' background knowledge and text, it is the teachers' role to give sufficient text clues through text headings and subheadings under the directions of SCROL reading strategy.

Finally we can summarize the major findings of this study as follows:

- 1) The SCROL strategy has been positive in the conduct of effective and meaningful reading.
- 2) Definitely, headings and sub-headings played an important role in students' comprehension.
- 3) Through the use of SCROL, students' interaction and the level of motivation have been influenced positively.
- 4) The use of headings and sub-headings activated the learners' schemata.

5.5 Suggestions for Further Research

The findings of this study suggest that further studies would be worthwhile in the general goals of exploring the effects of the other reading strategies and also other text clues that can be helpful in understanding the text. It is worth to some suggestions for further research in this field.

- 1) This study is limited to the high school female students. Thus further studies can be carried out for the students with different age and gender.
- 2) Since this study investigated only one type of text clues (headings and subheadings), similar studies could examine the effects of other types of text clues.
- 3) In this study intermediate level of proficiency was taken into account. The effects of the treatment on the other levels of proficiency can be included in the further studies.
- 4) This study was limited to reading skill only. Similar research could be done with focus on the listening as an input skill which can be facilitate by using different strategies.

As a final word, even though this study was limited to a very small number of participants, it can still be stated that every new methodological or technical applications in language teaching result in positive way. Therefore, teachers are to be creative and innovative as well as not being afraid of applying different means and methods in the classroom.

REFERENCES

- Allan, J., & Bruton, A. (1998). *Squeezing out the juice: Perceptions of reading in the secondary school*. Retrieved August 5, 2010, from <http://www.scre.ac.uk/spotlight/>
- Anderson, N. J. (1994). Developing active readers: A pedagogical framework for second language reading class. *System*, 22, 177-197.
- Anderson, R. C. (1984). *A schema-theoretic view of basic processes in reading comprehension*. technical report no.306.
- Bartell, A. L., Schultz, L. D., & Spyridakis, J. H. (2006). The effect of headings frequency on comprehension of print versus online Information. *Technical*, 58, 4-12.
- Bartlett, C. (1932). *Remembering*. Cambridge: The University Press.
- Barton, M. L. (1997). Addressing the literacy crisis: Teaching reading in the content areas. *NASSP Bulletin*, 81(587), 22-30.
- Bernhardt, E. (1991). *Reading development in second language: Theoretical, empirical, and classroom perspectives*. Norwood, NJ: Albex.

- Bialystok, E. (1983). Inferencing: testing the "hypothesis-testing" hypothesis. In H. W. Seliger, & M. H. Long(Eds.), *Classroom oriented research in second language acquisition* (pp. 104-123). Rowley Massachusetts: Newburg House.
- Blasko, D. &. (1993). Effects of familiarity and aptness on metaphor processing. *Journal of Experimental Psychology: Learning Memory, and Cognition*, 19, 295-308.
- Bonson, R., & Platt, R. (1997). *Disaster! Catastrophes that shook the world*. New York: Dorling Kindersle.
- Brooks, L., Dansereau, D., Spurlin, J., & Holley, C. (1983). Effects of headings on texts processing. *Journal of Educational Psychology*, 75, 292-302.
- Carnine, D. W. (2006). *Teaching struggling and at-risk readers: A direct instructional approach*. Columbus, Ohio: Pearson.
- Carrel, P. L., & Eisterhold, J. C. (1983). Schema theory and ESL reading pedagogy. *TESOL Quaterly*, 170, 553-573.
- Carrell, P. a. (1989). Effects on ESL reading of teaching cultural content schemata. *Language Learning*, 88-108.
- Carrell, P. L. (1989). Metacognitive Awareness and Second Language Reading. *The Modern Language Journal*, 73(2), 121-134.

- Carrell, P. L. (1998). Can reading Strategies be successfully Taught. *Australian review of applied Linguistics*, 21(1), 1-20.
- Celce-Murcia, M. (2001). *Teaching English as a second or foreign language*. Massachusetts: Heinle & Heinle publishers.
- Chastain, K. (1998). *Developing second language skills: Theory and practice*. Orlando: Harcourt Brace Jovanovi.
- Cook, G. (1989). *Discourse in 'Language Teaching: A scheme for Teacher Education'*. Oxford: Oxford University Press.
- Cunningham, P. M. (1999). *Classrooms that work: They can all read and write (2nd Ed.)*. Reading, Mass: Addison-Wesley Longman.
- Davey, B. (1983). Think Aloud: Modeling the cognitive process of reading comprehension. *Journal of Reading*, 27(1), 44 - 47.
- Ekwall, E. E. (1992). *Locating and correcting reading difficulties*. New York: Merrill.
- Erten, I. H., & Razi, S. (2003). An experimental investigation into the impact of cultural schemata on reading comprehension. *2nd International Balkan ELT Conference, 20-22 June 2003, Trakya University*. Edirne, Turkey.

Eysenck, M. W. (1990). *Cognitive psychology: A student's handbook*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Farhady, H. (2005). *Techniques for effective reading*. Tehran: Rahnama.

Farhady, H., & Mirhassani, A. (2001). *Reading through interaction*. Tehran: Zabankadeh.

Farlex Inc. (2004). *The Free Dictionary by Farlex*. Retrieved March 12, 2013, from Farlex: <http://www.thefreedictionary.com/>

Farrell, T. S. (2001). Teaching reading strategies: „It takes time!“. *Reading in a Foreign Language, 13*, 631-646.

Feldt, R. C., & Hensley, R. (2009). Recommendations for use of SQ3R in introductory psychology textbooks. *Journal of Education, 129(4)*, 584-588.

Fielding, G. L., & Pearson, D. P. (1994). Reading comprehension: What works. *Educational Leadership, 51(5)*, 62-66.

Frase, L. T. (1969). Paragraph organization of written material: The influence of conceptual clustering upon the level and organization of recall. *Journal of Educational Psychology, 60*, 394-401.

Geva, E. (1983). Facilitating reading comprehension through flowcharting. *Reading Research Quarterly, 18*, 384-405.

- Gipe, J. P. (1998). *Multiple Paths to Literacy: Corrective Reading Techniques for Classroom Teachers*. Merrill Pub Co.
- Glover, J. A., Halpain, D. R., Mckee, T. K., Corkill, A. J., & Wise, S. L. (1988). Effects of across-chapter signals on recall of tex. *Journal of Educational Psychology*, 80(1), 3-15.
- Good, V. (1973). *Dictionary of education. (3rd Ed)*. New York: McGraw- Hill Book Company Inc.
- Goodman, K. S. (1998). The reading process. In P. L. Carrell, J. Devin, & D. E. Eskey, *nteractive approaches to second language reading* (pp. 11-21). New York: Cambridge University Press.
- Grabe, W. &. (2002). *Teaching and researching reading*. Harlow: Pearson Education.
- Grabe, W. (1991). Current developments in second language reading research. *TESOL Quarterly*, 25, 375-406.
- Grant, R. (1993). Strategic training for using text headings to improve students'. *Journal of Reading*, 36(6), 482-488.
- Hannon, B. &. (2001). A new tool for measuring and understanding individual differences in the component processes of reading comprehension. *Journal of Educational Psychology*, 93(1), 103-128.

- Hanson, S., & Padua, J. F. (2011). *Text features: Effective instructional strategies series*. Pacific resources of education and learning.
- Hanson, V. L. (2011). Technology skill and age: What will be the same 20 years from now. *Universal Access in the Information Society*, 10(4), 443 – 452.
- Harmer, J. (2001). *The practice of English language teaching*. ESSEX: Pearson Education Limited.
- Harris, T. L. (1995). *The literary dictionary*. Newark, DE: International Reading Association.
- Hartley, J. (1987). Designing electronic text: The role of print-based research. *Educational Communication and Technology*, 34(1), 3-17.
- Hartley, J., Kenely, J., Owen, G., & Trueman, M. (1980). The effects of text headings on Children's recall from prose text. *British Journal of Educational Psychology*, 50, 304-307.
- Hedge, T. (2008). *Teaching and learning in the language classroom*. Oxford: Oxford University Press.
- Holley, C. D., Evans, S. H., Collins, K. W., Brooks, L., & Larson, D. (1981). Utilizing intact and embedded headings as processing aids with nonnative text. *Contemporary Educational Psychology*, 6, 227-236.

- Hudelson, S. (1994). Literacy development on Second Language Children. In F. Genesee, *Educating second language children*. Cambridge: Cambridge University Press.
- Huhmann, B. A., Mothersbaugh, D. L., & Franke, G. R. (2002). Rhetorical figures in headings and their effect on text processing: The moderating roles of information relevance and text length. *IEEE Transactions on Professional Communication*, 45, 157-169.
- Hyon, J., & Lorch, R. F. (2004). Effects of topic headings on text processing: Evidence from adult readers' eye fixation patterns. *Learning and Instruction*, 14, 131-152.
- Ibrahim, L. (2011). *The Effect of Instructional Strategies and Self-efficacy on Students' Achievement in Reading Comprehension*. Medan: State University of Medan.
- İstifçi, I. (2009). Lexical Inferencing Strategies of Turkish EFL Learners. *Journal of Language and Linguistic Studies*, Vol.5, No.1, 97-109.
- Kalvin, K. (2009). *A Method for Developing Podcasts of Social Studies Lessons With a Study Strategy to Accommodate Students Who Read Below Grade Level*. California: Humboldt State University.
- Kantarç, F. (2006). *Students' Awareness of Reading Strategies*. Ankara: Bilkent University.

- Kelly, M., & Clausen-Grace, N. (2010). Guiding students through expository text with text feature walks. *The Reading Teacher, 64*(3), 191-195.
- Kim, Y., & Goetz, E. (1995). Children's Use of Orthographic and Contextual Information in Word Recognition and Comprehension. *The Varieties of Orthographic Knowledge, Vol. 11*, 205-249.
- Kinder, D., & Burusuck, W. (1991). The search for unified social studies curriculum: Does history really repeat itself? *Journal of Learning Disabilities, 24*(5), 270-275.
- Kintsch, W. A. (1998). *Comprehension: A paradigm for cognition*. Cambridge, England: Cambridge University Press.
- Kintsch, W. A., & Yarbrough, J. C. (1982). Role of rhetorical structure in text comprehension. *Journal of Educational Psychology, 74*, 828-834.
- Kozminsky, E. (1997). The effects of biasing titles on text comprehension. *Memory and Cognition, 5*, 482-490.
- Krug, D. (1989). The Effect of Outlines and Headings on Readers' Recall of Text. *Contemporary Educational Psychology 14* (2), 111-123.
- Kucer, S. (2005). *Dimensions of Literacy: A conceptual base for the teaching of reading and writing*. Mahwah, NJ: Erlbaum.

- Laberge, D. &. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6, 293-323.
- Lorch, R. F., & Lorch, E. P. (1996). Effects of organizational signals on free recall of expository text. *Journal of Educational Psychology*, 88(1), 33-48.
- Lorch, R. F., & Lorch, E. P. (1996). Effects of organizational signals on text recall and summarization. *Contemporary Educational Psychology*, 21, 261-278.
- Lorch, R. F., Lorch, E. P., McGovern, L., & Coleman, D. (2001). Effects of headings on text summarization. *Contemporary Educational Psychology*, 26, 171-191.
- Macaro, E. &. (2008). Raising the Achievement of Young-beginner Readers of French through Strategy Instruction. *Applied Linguistics*, 29(1), 90-119.
- Mayer, R. E. (1994). Visual aids to knowledge construction. In W. Schontz, & R. W. Kulhavy, *Comprehension of graphics* (pp. 120-134). North-Holland: Elsevier Science B. V.
- Mayer, R. E. (1996). Learning strategies for making sense out of expository: The SOI model for guiding three cognitive processes in knowledge instruction. *Educational Psychology Review*, 8, 357-371.
- McAdams, M. (1996). The Editorial Eye. *19(6)*, 1-3.

- McDaniel, M. A., Eistein, G. O., & Lollis, T. (1998). Qualitative and quantitative considerations in encoding difficulty effects. *Memory and Cognition, 16*(1), 8-14.
- Medina, C. (2007). *Successful strategies for reading in the content areas. (2nd Ed)*.
Cornne Burton: Sell Education.
- Meyer, B. J. (1984). Text dimensions and cognitive processing. In H. Mandl, N. L. Stein, & T. (. Trabasso, *Learning and comprehension of text* (pp. 3–52). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Niederhauser, D. S., Reynolds, R. E., Salmen, D. J., & Skolmoski, P. (2000). The influence of cognitive load on learning from hypertext. *Journal of Educational Computing Research, 23* (3), 237–255.
- Nielson, J. (2000). *Designing web usability*. Indianapolis, IN: New Reader Publishing.
- Nunan, D. (1999). *Second language teaching and learning*. Boston: Heinle and Heinle Publishers.
- Page, G. T. (1980). *International dictionary of education*. Cambridge: The MIT Press.
- Pang, E. S., Muaka, A., Kamil, M. L., & Bernhardt, E. B. (2003). Teaching reading. *Educational Practices Series, 12*, 35-42.

- Pardo, L. S. (2004). What every teacher needs to know about comprehension. *The Reading Teacher*, 272-281.
- Parera, M. T. (2006). Reading strategies and strategy awareness in three EFL educated readers of English literary texts. *Atlantis*, 28(2), 69-87.
- Pulido, D. C. (2003). Modeling the role of second language proficiency and topic familiarity in second language incidental vocabulary acquisition through reading. *Language Learning*, 54, 469-523.
- Raphael, T. E. (1986). Teaching question answer relationships. *The Reading Teacher*, 39, 516-522.
- Rasinski, T. V. (New York). *The fluent reader*. 2003: Scholastic Professional Books.
- Reid, R., & Lienemann, T. (2006). *Strategy Instruction for Students with Learning Disabilities*. New York: The Guilford Press.
- Rumelhart, D. E. (1980). Schemata: The building blocks of cognition. In R. J. Spiro, *Theoretical issues in reading comprehension*. Hillsdale, N J: Lawrence Erlbaum.
- Sadoski, M., Goetz, E. T., & Fritz, J. B. (1993). A causal model of sentence recall: Effects of familiarity, concreteness, comprehensibility, and interestingness. *Journal of Reading Behavior*, 25 (1), 4-16.

- Salmeron, L., Canas, J. J., Kintsch, W., & Fajardo, I. (2005). Reading strategies and hypertext comprehension. *Discourse Processes* 40 (3), 171–191.
- Sanchez, R. P. (2001). Effects of headings on text processing strategies. *Contemporary Educational Psychology*, 26, 418–428.
- Santa, C. A., Havens, L. T., & Maycumber, E. M. (1996). *Project CRISS*. Dubuque, Iowa: Kendall/ Hunt.
- Schmitt, N. (2002). *An introduction to applied linguistics*. New York: Oxford University Press.
- Smith, F. (1978). *Understanding Reading: A psycholinguistic Analysis of Reading and Learning to Read*. New York: Holt, Rinehart and Winston.
- Spyridakis, J. H. (1989). Signaling effects: A review of the research, part I. *Journal of Technical Writing and Communication*, 19, 227–240.
- Spyridakis, J. H. (1989). Signaling effects: A review of the research, part II. *Journal of Technical Writing and Communication*, 19, 395–415.
- Spyridakis, J. H. (1996). Effects of headings on text recall and summarization. *Contemporary Educational Psychology*, 21, 261–278.

- Spyridakis, J. H., & Standal, T. C. (1986). Headings, previews, and logical connectives: Effects on reading comprehension. *Journal of Technical Writing and Communication, 16*, 343-354.
- Statman, S. (1988). Ask a clear question and get a clear answer: An inquiry into the question/answer and sentence completion formats of multiple choice items. *System, 16*(3), 367-376.
- Totten, S., Johnson, C., Morrow, L. R., & Briegel, T. S. (1999). *Practicing what we preach: preparing middle level educators*. New York: Falmer Press.
- Uzunçakmak, P. (2005). *Successful and Unsuccessful Readers' Use of Reading Strategies*. Ankara: Bilkent University.
- Waller, R. (1982). Text as diagram: Using typography to improve access and understanding. In D. H. Jonassen, *The technology of text: Principles for structuring, designing and displaying text* (pp. 137–166). Englewood Cliffs, NJ: Ed Tech Publication.
- Wolf, D. F. (1993). A comparison of assessment tasks used to measure FL reading comprehension. *The Modern Language Journal, 77* (4), 473-489.
- Wray, D. (1993). Student-teachers' knowledge and beliefs about language. In N. Bennett, & C. (. Carré, *Learning to teach*. London: Routledge.
- Yule, G. (1996). *The study of language*. New York: Cambridge University Press.

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: exploring pathways to learner development in the English as a second language (ESL) classroom. *Instructional Science*, 36(2), 89–116.

APPENDICES

Appendix A: Pre-Test

Paper 1 Reading and Writing

Part 1

Questions 1-5

Which notice (A-H) says this (1-5)?

For questions 1-5, mark the correct letter A-H on your answer sheet.

Example:

0 Be careful when you cross here.

Answer:

0	A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---	---

Tip

Read the example. Remember that this letter **cannot** be an answer to 1-5.

1 There are tickets for this evening.

2 Cars cannot park here.

3 We will give you something free.

4 You will have to wait to see the doctor.

5 Buy your favourite songs here.

A Cheap CDs for sale

B Watch repairs while you wait

C Buy two films for the price of one!

D No rock concert tonight (singer ill)

E LOOK OUT - BUSY ROAD

F 30 - 40 mins delay for all appointments - sorry

G CARLTON CINEMA
Seats available for 21.15 performance

H - NO STOPPING -
HOSPITAL ENTRANCE

Part 2

Questions 6–10

Read the sentences about a music club.
Choose the best word (A, B or C) for each space.

For questions 6–10, mark A, B or C on your answer sheet.



Example:

0 The music club after school every Wednesday.

- A meets B goes C gets

Answer:

0	A	B	C
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 Sam and Tim the club last year.

- A arrived B joined C came

7 Sam is learning the there and Tim plays in a band.

- A songs B guitar C rock

8 Last week the music club did a in the school hall.

- A film B match C concert

9 Sam and Tim's parents came to to them.

- A watch B hear C listen

10 Sam and Tim didn't any mistakes and the music sounded great!

- A make B do C happen

Tip

Try all three choices in the space
before you decide on your answer.

Part 3

Questions 11–15

Complete the five conversations.

For questions 11–15, mark A, B or C on your answer sheet.

Tip

Read the first half of each conversation carefully.

Example:

0



How is Kate?



- A She's my sister.
- B She's fine.
- C She's gone.

Answer:

0	A	B	C
---	---	---	---

11 Would you check Sam's homework?

- A Can I do it later?
- B When did it finish?
- C He's wrong.

12 What time did the bus arrive?

- A It's 3 o'clock.
- B About 20 minutes ago.
- C For half an hour.

13 Dan's got a new bicycle, hasn't he?

- A It's his brother's.
- B He's a good driver.
- C It's too old.

14 I'd like to try on these shoes, please.

- A Would you like them?
- B What colour are they?
- C Are they the right size?

15 Here's my ticket.

- A How much does it cost?
- B Can I see your passport too?
- C Where do you go?

Questions 16–20

Complete the conversation at the doctor's.
What does Peter say to Dr Robertson?

For questions 16–20, mark the correct letter A–H on your answer sheet.

Example:

Dr Robertson: Hello, you must be Peter Jones. What's the problem?

Peter: 0

Answer:

0	A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---	---

Tip

Read the beginning of the conversation with the example.

Dr Robertson: Oh yes, it's the right one, isn't it. Where does it hurt?

Peter: 16

Dr Robertson: Can you move it?

Peter: 17

Dr Robertson: Does it? And how did you do this, Peter?

Peter: 18

Dr Robertson: Did you leave the match when that happened?

Peter: 19

Dr Robertson: That wasn't a very good idea, was it?

Peter: 20

Dr Robertson: It's not that bad! But don't play any football for two weeks.

Peter: Right, I won't.

A I suppose not. Will I need to go to hospital?

B The left one's fine.

C I was playing football this morning and I fell badly.

D It's my leg, doctor, it really hurts.

E How long will it take?

F The pain's here, just above my foot.

G Well I wanted to, but I had to play until the end.

H I can, but it hurts when I walk.

Part 4

Questions 21–27

Read the article about Jenny's holiday in New Zealand.
Are sentences 21–27 'Right' (A) or 'Wrong' (B)?

If there is not enough information to answer 'Right' (A) or 'Wrong' (B),
choose 'Doesn't say' (C).

For questions 21–27, mark A, B or C on your answer sheet.

Tip

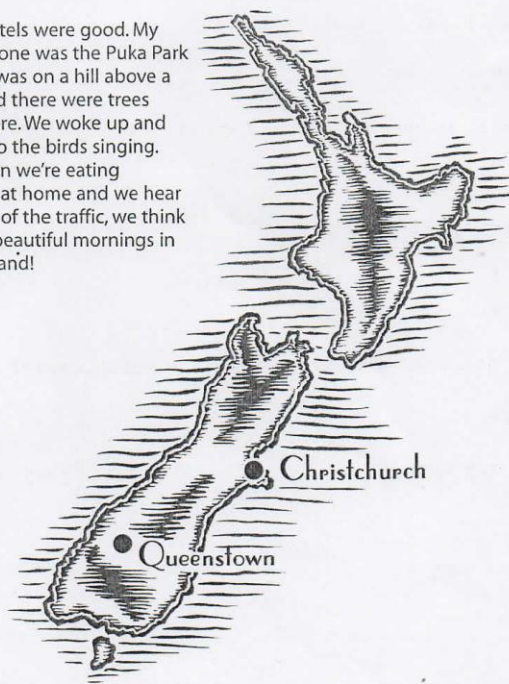
Read all of the text **before** you
answer the questions.

OUR HOLIDAY IN NEW ZEALAND

Last year, my husband Mike and I decided to visit New Zealand. We wanted to tour the country, but we both hate long car journeys. The travel agent suggested a 13-day coach trip. It was a good price, so we booked it with our plane tickets. We made a good choice. The coach journeys passed quickly and our driver told us about each place. We learned a lot from him.

We flew from London to Christchurch and had a free day there before the coach trip started. We weren't at all tired, so we walked round the city from morning till night. It has good museums, many restaurants and lovely shops. The best place we visited on the trip was Queenstown. You can choose to do almost anything, from sailing to climbing. We had three days there, but it wasn't enough.

All the hotels were good. My favourite one was the Puka Park Lodge. It was on a hill above a beach and there were trees everywhere. We woke up and listened to the birds singing. Now, when we're eating breakfast at home and we hear the noise of the traffic, we think of those beautiful mornings in New Zealand!



Example:

0 Jenny and Mike prefer travelling by car.

A Right B Wrong C Doesn't say

Answer:

0	A	B	C
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

21 They paid for the coach tour when they got to New Zealand.

A Right B Wrong C Doesn't say

22 Their coach was a fast one.

A Right B Wrong C Doesn't say

23 The driver gave them useful information.

A Right B Wrong C Doesn't say

24 After the plane journey, they needed to sleep.

A Right B Wrong C Doesn't say

25 They wanted to stay longer in Queenstown.

A Right B Wrong C Doesn't say

26 They went swimming at the Puka Park Lodge.

A Right B Wrong C Doesn't say

27 Their house is near a busy road.

A Right B Wrong C Doesn't say

Part 5

Questions 28–35

Read the article about Penélope Cruz, the film star.
Choose the best word (A, B or C) for each space.
For questions 28–35, mark A, B or C on your answer sheet.

Tip

Look at the words before and after each space to help you decide your answer.

Penélope Cruz

The actor Penélope Cruz comes (0) Madrid and was born in 1974. She dances (28) well and once made a rock video (29) the group *Mecano*. Cruz made (30) first film in 1991 and soon became a big name in Spanish cinema. Since then, she has (31) in several important films in Spain and in the U.S.A. One Spanish

film won an Oscar in the famous film competition, for the (32) foreign film.

When she is going to make (33) new film, she looks for information that will make the film really special. This often means travelling to (34) country and talking to people there. She loves (35) photographs on these trips.

Information taken from www.latin-connection.com and *Vanity Fair* April 2000

Example:

0 A from B by C on

Answer:

0	A	B	C
---	---	---	---

28 A too B very C enough

29 A at B with C to

30 A his B its C her

31 A been B be C being

32 A good B better C best

33 A any B no C some

34 A other B all C another

35 A take B taking C takes

Part 6

Tip

Add the first letter to the number of spaces to see how long each word is.

Questions 36–40

Read the descriptions of some places in a town.
What is the word for each one?

The first letter is already there. There is one space for each other letter in the word.

For questions 36–40, write the words on your answer sheet.

Example:

0 You can watch actors in a play here.

t _ _ _ _ _

Answer:

0	theatre
---	---------

36 You take your car here to fill it up with petrol.

g _ _ _ _ _

37 If you need a book to help you with your homework, you may find it here.

l _ _ _ _ _

38 You go here if you need somewhere to stay for the night.

h _ _ _ _

39 When you eat in this place the waiter brings everything to your table.

r _ _ _ _ _ _

40 You choose the things you want to buy here and pay for them at the exit.

s _ _ _ _ _ _ _

Part 7

Questions 41–50

Complete the letter.

Write ONE word for each space (41–50).

For questions 41–50, write your words on your answer sheet.

Example:

0	a
---	---

Tip

Read the text or texts quickly first for meaning.

Dear Karen,

My sister is going to have (0) party on Saturday (41) she has just finished her exams.

Everybody is going to bring some food to eat and (42) will be fruit juice and lemonade to drink. (43) music will be good too. My sister has got (44) of CDs and (45) of her friends has a guitar and will sing a (46) songs.

My sister lives in Station Street, (47) to the cinema, and the party will start (48) nine o'clock. (49) we go there together? Please phone me this evening (50) you get home.

Yours

Marie

Part 8

Questions 51–55

Read this advertisement and email about someone who is going to study English.
Fill in the information on the form for this student.

For Questions 51–55, write the information on your answer sheet.

Tip

Remember that the information will come from both texts.

Central College, London

We have six-week courses beginning on
22.05, 19.06 and 10.07.

Email Kay Thorpe to book your place now!

From: Giovanni Zola

To: Kay Thorpe

Sent: 20 May

I'm going to study English at your college. Please find me a small flat to rent. I'll be at home in Italy for the next four weeks. My flight to London is on June 17, so I have booked a hotel for two nights.

**CENTRAL COLLEGE
STUDENT ACCOMMODATION FORM**

First name: Giovanni

Surname:

51

Nationality:

52

Course:

English

Starting date:

53

Number of weeks:

54

Wants to live in:

55

Part 9

Questions 56-60

You are going to meet your friend Jan at the sport centre.

Write a post card to Jan and say:

56. When you want to meet her there?

57. What sports you would like to do?

58. What she should bring?

59. How long you will be there?

60. Where will you go after there?

Write 35-40 words.

Appendix B: Post-Test

Read the following texts and then answer the questions.

People in the world

It isn't true that one half of the world is rich and the other half is poor. It is one-third that are very rich and two-third that are very poor. People in the rich parts don't realize the great differences between them and the other parts.

In the poor parts, a lot of people never get enough to eat. In the rich parts a lot of people eat too much. In one part, children starve and in the other, a lot of people get fatter and have to go on diet, or do special exercises in order to lose weight. A very simple example is that a dog or a cat in North America eats better than a child in the poorer countries.

A fisherman in the South America catches fish which is processed into pet food, but his own children do not eat enough protein for their bodies to develop properly. A lot of the world's natural resources like oil come from these poorer countries. The richer countries are probably using sixty times as much of these resources as a person in Asia or Africa.

The richer countries dictate to suppliers what kind of prices they like to pay for these natural resources. But the prices the richer countries get for their own exports have continued to rise. So, they are getting richer and richer while the poor countries are getting poorer and poorer.

1. According to the passage, the number of the poor people in the world

is..... the rich people.

- A. less than
- B. equal to
- C. more than
- D. fewer than

2."The poor countries" refers to.....

- A. Asia.
- B. North America.
- C. Africa
- D. Africa and Asia.

3. In the poor countries people.....

- A. Eat too much.
- B. Have to go on diet.
- C. Do special exercises.
- D. Get hardly enough food.

4. A lot of natural resources come from thecountries.

- A. Rich
- B. North American
- C. Poor

D. South America

Airport Workers

In a large metropolitan airport it is not unusual to have many landings and take-offs during a 24-hour period. The heavy air traffic is under the control of a group of men known as Air Traffic Controllers who direct the flow of air traffic into and out of the airport.

The air traffic control group works in the control tower, which is located at the highest point in the air port terminal building, permitting them to have maximum vision of all the aircraft arriving and leaving the airport.

When the weather limits the visibility of the pilots and the air traffic control operators, many electronic navigational aids are used to permit a safe landing. All of the procedures used for handling traffic under good and poor weather conditions are established by the Federal Aviation Administration, known as the F.A.A.

5. The airline traffic into and out of airports is controlled by.....

- A. the captain of each arriving aircraft.
- B. the air traffic control operators.
- C. the dispatcher of the airline company.
- D. the president of the airline company.

6. The airport under poor weather conditions will.....

- A. stop all incoming flights.

- B. stop all outgoing flights.
- C. speed up the landing of all incoming flights.
- D. use electronic navigational aid landing instruments.

7. The control tower is located at of airport terminal building.

- A. the center
- B. the highest point
- C. the entrance
- D. the lower point

8. The heavy air traffic is under the control of a group of men known as Air Traffic Controllers who.....

- A. direct the time of landings and take-offs.
- B. direct the flow of air traffic into and out of the airport.
- C. direct the turns of flights.
- D. check just weather conditions.

9. Another appropriate title for this passage would be.....

- A. The air traffic
- B. Air Traffic Controllers
- C. Weather conditions
- D. Control tower

Heat Transfer

There are three basic ways in which heat is transferred from one place to another: conduction, convection, and radiation. In conduction, the transfer takes place by having the moving molecules actually impart their motion to other molecules which are next to them. This is illustrated by placing a pan on the stove. The heat from the stove causes the molecules of the metal pan to move rapidly and by doing so imparts the heat to the pan.

When the pan is filled with water, the molecules of water near the bottom of the pan will heat up first. After the bottom layer is heated the warm water will rise because it is lighter than the cool water and the cool water will move down to replace the warmer water. This circulatory motion is known as convection.

Similar convection currents take place in heating systems in a home and in large bodies of water found in the oceans. When we hold our hand below a lamp we can feel the heat from the lamp. The heat in this case is transmitted by radiation through the air. The heat from the sun reaches the earth by radiation.

10. The transfer of heat in liquids usually takes place by.....

- A. conduction.
- B. convection.
- C. ionization.
- D. radiation.

11. The basic concept involved in heat transfer in conduction and convection is based on the.....

- A. movement of molecules when heated.
- B. sun's heat.
- C. insulators and conductors.
- D. coefficient of expansion.

12. The three kinds of heat transfer are conduction, convection, and.....

- A. solarization.
- B. atomization.
- C. Radiation.
- D. ionization.

13. Convection can be illustrated by.....

- A. placing a pan on the stove.
- B. warming water.
- C. cooking dinner.
- D. the heat from the sun.

14. The heat from the lamp we feel when we hold our hand below it, is transmitted by.....

- A. convection. B. radiation. C. conduction. D. solarization.

Tsar Peter's Aims

Tsar Peter the Great of Russia had three aims that guided his whole life. The first was to clear the path for European influences to penetrate into Russia. Until Peter came to throne in 1682, Russia had had little contact with Western Europe. His major contacts had been with Eastern Europe, Greece, and Asia.

The second goal of Peter's was to open a direct road to the west by getting land on the Baltic and Black seas. He then planned to build seaports and to develop trade with the west. At that time ships were by far the fastest means of travel.

His third aim was to modernize the Russian government and to centralize all the power in the hands of the Tsar. Three groups, all of them powerful and all of them symbols of the past, stood in his way and he finally destroyed the power of all three. The Patriarch was head of the Russian Orthodox Church. When the Patriarch died, Peter replaced him with a group of men he himself appointed. They were called the Holy Synod.

15. One of the following was not a chief aim of Peter the Great.

- A. a direct route to the west.
- B. greater availability of western influence.
- C. centralized power in his hands.
- D. creation of a strong church.

16. From the passage it appears that at the time of Peter an important church was...

- A. the Orthodox Church.

- B. the Greek church.
- C. the catholic church.
- D. the Russian orthodox church.

17. Peter replaced the Patriarch with.....

- A. the boyars.
- B. nothing.
- C. a Holy Synod.
- D. none of the above.

18. Until the time of Peter the Great, Russia had had fewer contacts with Western Europe than with.....

- A. Eastern Europe and Asia.
- B. the black sea region.
- C. France.
- D. the Balkans.

19. If peter the Great achieved his second aim, then by the time of his death Russia would have had.....

- A. more contacts.
- B. a seaport on the Baltic Sea and trade with Europe.
- C. a French style army.
- D. no more nobles to control the country.

A Particle in the Universe

The earth seems big to us, but it is one particle floating along with countless other particles in space. Our sun is another such particle. It is only a large star at the edge of our galaxy, the Milky Way. Nine small planets and about two thousands smaller bodies all revolve round it in a fixed order.

There are many stars larger and brighter than the sun in the Milky Way. There are also many millions of galaxies in the universe as big as, or bigger than, the Milky Way. The distance from the earth to other bodies in space is measured by astronomers in light years, that is, the distance (5.88 million miles) that light travels in one year. The farthest galaxies are more than two billion (= two million million) light years away from the earth. Each galaxy is made up of millions of stars and satellites. There are vast distances between one galaxy and another.

20. The earth is.....

- A. the largest particle in space.
- B. one of a few particles in space.
- C. really a minute particle in space.
- D. almost as big as other particles in space.

21. The Milky Way, our galaxy, consists of.....

- A. nine planets and 2000 smaller bodies.
- B. one star together with nine planets.
- C. many millions of stars and revolving bodies.
- D. many larger and brighter stars than the sun.

22. In space, distances are measured in.....

- A. light years.
- B. light ratios.
- C. light ships.
- D. light meters.

23. Light travelsa year.

- A. 5.88 million miles.
- B. 946 billion kilometers.
- C. two billion miles
- D. millions of miles

24. Each galaxy is made up of.....

- A. millions of stars and satellites.
- B. two million million light years.
- C. sun and stars.
- D. just a lot of satellites.

Water and Electricity

Power is any amount of energy that can be used to do work. One of the great natural sources of power is water. Water power can be changed into electrical power in the following way.

First water is stored in a reservoir behind a dam. The water is then channeled in a certain way so that its power turns a fan shaped wheel called a turbine. The turbine, in turn, runs a dynamo, **which** is a machine that turns coils of copper wire within a magnetic field. This action causes electric currents to flow in the copper wires. This is the process that makes electricity. Thus, water power helps make electric power.

25. The main idea of the passage is that.....

- A. electricity and water can be used to do work.
- B. turbines and dynamos can be used to do work.
- C. water power can be used to produce electric power.
- D. electric power can be used to produce heat power.

26. Electric currents flow in the copper wires when.....

- A. the dynamo turns the turbine.
- B. the coils of copper wire are turned.
- C. the turbine turns the fan shaped wheel.
- D. the water is channeled into the dynamo.

27. Before being channeled into the turbine, water is kept in.....

- A. a fan shaped wheel under the dam.
- B. an electric power plant near the dam.

- C. a reservoir behind the dam.
- D. an electric machine the dam.

28. In line 6, which refers to.....

- A. turbine.
- B. dynamo.
- C. machine.
- D. wheel.

29. Generally this passage talks about.....

- A. dynamo
- B. process that makes electricity
- C. energy
- D. turbine

Crystal Palace

Perhaps the most extraordinary building of the nineteenth century was the Crystal Palace, which was built in Hyde Park of the great exhibition of 1851. The Crystal Palace was made of iron and glass.

It was one of the biggest buildings of all time and a lot of people from many countries came to see **it**.

A great many goods were sent to the exhibition from various parts of the world. There was also a great deal of machinery on display. The most wonderful piece of machinery on show was Nasmyth's steam hammer. Though in those days, traveling was not as easy as it is today, steam boats carried thousands of visitors across the channel from Europe. On arriving in England, **they** were taken to the crystal palace by train. There were six million visitors in all, and the profits from the exhibition were used to build museums and colleges. Later the crystal palace was moved to south London. It remained one of the most famous buildings in the world until it was burned down in 1936.

30. The crystal palace was the most extraordinary building in the world because.....

- A. there was a great deal of machinery in it on display.
- B. there came a lot of people from many countries.
- C. it was built in Hyde park.
- D. it was made of iron and glass.

31. In line 5, it refers to.....

- A. the great exhibition.
- B. the Hyde park.
- C. the Crystal Palace
- D. the Glass.

32. In 1851 there wasin Hyde Park.

- A. an extraordinary building.
- B. an exhibition.
- C. a museum
- D. a collage

33. In line 10, they refers to.....

- A. boats.
- B. visitors
- C. museums.
- D. goods.

34. According to the passage, the Crystal Palace.....

- A. was a strange palace.
- B. was profitable for England.
- C. was used as a channel.
- D. was used as a museum.

Man's thought power

Man has always been interested in extending the range of his senses and the power of his mind. Through the years, he has invented many instruments to help him see better and understand more.

While developing his power of thought, man first began to identify and count objects. It was a long time ago that this numbering and comparing of things began.

As times changed and the number of people increased, new devices to aid in the manipulation of numbers were added to make the job faster and more accurate. Computers were developed during a period of about three hundred years. The first mechanical calculator was produced in 1642.

Electronic computers are among the fastest instruments for sorting and comparing now in use. The electronic computer allows man to perform tremendous mental tasks in a relatively short time. Great scientists of the past produced ideas which were the basis for great advances. With the computer, the ideas of today's scientists can be studied, tested, distributed and used more rapidly than ever before.

35. According to the text, man has always been interested
in.....

- A. developing his power of thought.
- B. perceiving better and understanding more.
- C. extending the range of his senses.
- D. inventing many instruments.

36. Man began to.....while developing his power of thought.

- A. use the computers
- B. produce new devices
- C. compare things
- D. identify and count things

37. Jobs were made faster and more accurate because.....

- A. new devices were added.
- B. the number of people increased.
- C. the power of man's mind extended.
- D. numbering and comparing of things started.

38. The first mechanical calculator was produced in thecentury.

- A. sixteenth
- B. eighteenth
- C. seventeenth
- D. nineteenth

39. Electronic computers are instruments for.....now in use.

- A. doing enormous mental tasks.
- B. testing the ideas of today's scientists.
- C. distributing the ideas of today's scientists
- D. putting things in order and comparing them.

40. According to the text, computers.....

- A. make problems for men.
- B. make developing for men easy and fast.
- C. are used for calculation.
- D. are the basis for great advances.

Appendix C: The Meaning of Unknown Words

شگفت اور۔ خارق العاده	Extraordinary	برقرار شد	Established
مخزن۔ انبار	Reservoir	چکش کاری	Hammer
حلقہ های سیم مسی	Coils of copper wire	مولد جریان-دینام	Dynamo
دور زدن-گردش	Revolve	ذره	Particle
سوراخ کردن	Penetrate	منجم	Astronomers
بندر	Seaport	تخت شاهی	Throne
مامور شد	Appointed	نابود کرد	Destroyed
هدایت	Conduction	منتقل شد	Transferred
تابش	Radiation	انتقال گرما	Convection
حالت چرخشی	Circulatory motion	بهر همد ساختن	Impart
وسایل کمک ناوبری	Navigational aids	وابسته به شهر	Metropolitan

Appendix D: Format of SCROL Procedure

Here are the steps to be included in the **SCROL** procedure for using text headings to help understand, remember, and locate information:

Survey

-In the assigned text selection, read each heading and subheading.

در هر متن، عنوان و عنوان فرعی مربوط به آن متن را بخوانید.

-For each heading and subheading, try to answer the following questions:

برای هر عنوان و عنوان فرعی به سوالات زیر جواب دهید:

What do I already know about this topic?

-در باره این موضوع چه میدانم؟

What information might the writer present?

-نویسنده چه اطلاعاتی میخواهد بدهد؟

Connect

-Ask yourself, how do the headings relate to one another?

-از خود بپرسید چطور عنوانها به هم ربط دارند؟

- Write down the key words from the headings that might provide connections between them.

-کلمات کلیدی عنوانها را که ممکن است ارتباط هایی با هم داشته باشند را بنویسید.

Read the text

-As you read, look for words and phrases that express important information about the headings.

-وقتی متن را میخوانید بدنبال کلمات و عباراتی باشید که اطلاعات مهم در باره عنوانها میدهد.

- Mark the text to point out important ideas and details.

جزئیات و ایده های مهم متن را علامت گذارید.

-Stop to make sure that you understand the major ideas and supporting details.

قبل از اینکه سراغ عنوان بعدی بروید مطمئن باشید که ایده های اصلی را فهمیده اید.

- If you do not understand, reread.

اگر نه دوباره بخوانید.

Outline

-outline the major ideas and supporting details in the heading segment.

ایده های اصلی و جزئیات مهم را در بخش عنوان بنویسید.

-Write the heading and then try to outline each heading segment without looking back at the text.

عنوان ها را بنویسید و سعی کنید مطالب مربوط به آنها را بدون نگاه به متن را بنویسید.

Look back

-Now, look back at the text and check the accuracy of the major ideas and details you wrote.

حال به متن نگاه کنید و صحت ایده ها و جزئیات اصلی را چک کنید.

-Correct any inaccurate information in your outline.

هر اطلاعات نادرست را تصحیح کنید.

-If you marked the text as you read, use this information to help you verify the accuracy of your outline.

اگر متن را موقع خواندن علامت گذاشته اید از آن برای تصحیح استفاده کنید.