

Processing Information in Expository Passages Using Text Structure Strategies: An Accelerator to Effective Reading Comprehension

Soheila Rabani ¹, Masoumeh Akhondi ^{2*}, Faramarz Azizmalayeri ³

1. Department of English, Malayer Branch, Islamic Azad University, Malayer, Iran

2. Assistant Professor, English Department, Malayer Branch, Islamic Azad University, Malayer, Iran

3. Assistant Professor, English Department, Malayer Branch, Islamic Azad University, Malayer, Iran

* Corresponding Author: www.Masoumeh631@yahoo.com

Abstract

The present study was designed to explore the impact of information processing training through text structure strategies on Iranian EFL learners' comprehension of expository passages. To do this, a sample of 60 Iranian EFL learners was selected based on their performance on the Nelson English Language Test. Next, they were randomly assigned into two groups: a control and an experimental group. Reading instructions were presented in two methods; One through the use of information processing strategies which were designed based on special focus on text structures; the other through the use of the traditional techniques of reading comprehension instructions. The results of the analysis of covariance (ANCOVA) revealed that the use of information processing strategies through text structures was an effective strategy to help EFL learners to enhance their reading comprehension. It was found that information processing strategies could improve Iranian EFL learners' reading comprehension of expository texts more than the traditional techniques of reading comprehension such as background knowledge activation. This finding proved the superiority of information processing training to the traditional techniques of reading comprehension.

Keywords: information processing, text structure strategies, expository reading texts

I. INTRODUCTION

Language as a medium of communication allows association and interaction of ideas between the members of a community so that the production and development of thoughts is acquired (Sahin, 2013).

In the past few decades, the development of information processing in cognitive field has introduced a valuable resource for research hypotheses which deal with instructional design principles (Cooper, 1998; Sweller, van Merriënboer & Paas, 1998).

Through cognitive perspective of information processing, brain is considered as an active processor of information. Our brain has the ability to process incoming information that is, chooses, encodes, and holds bulk of information that is available to us through our sensory system and then manages the information in our memory system for later use. In other words, information from the senses are received, processed, and then the information is maintained in memory for later retrieval (Wittrock, 1990). It is believed that human memory has the responsibility to develop and manage information. Actually, human memory receives information through sensory system, processes, and transfers it meaningfully to short-term memory and then to long term memory from which it can be retrieved later.

One of the most important aspects of any written text is its structure (Meyer & Poon, 2001). Akhondi, Azizmalayeri, and Samad (2011) believe that text features can help readers locate and organize information in the text. They also continue to argue that the recognition and use of text organization are essential processes underlying comprehension and retention. Spivey and King (1989, p.7) provide an excellent explanation of what is required in understanding the gist of message from sources: "readers become writers, creating new texts by selecting, organizing and connecting content from source texts".

There is convincing evidence that knowing the text organization influences the comprehension of the text. Competent readers with the knowledge of text structure are able to construct mental models of the main ideas, as well as learn and remember the information presented in the text (Meyer, Brandt & Bluth, 1980). In addition, knowledge of text structure enables the readers to construct more elaborate mental models of the text being read (Van Dijk & Kintsch, 1983). Another research by Carrell (1989) has indicated that texts with specific logical patterns of organization, such as comparison, contrast, problem solution, and cause-effect, are more likely to require recall and comprehension than texts organized loosely around the collection of facts. Furthermore, she demonstrated that the amount of information that students recall depend largely on the kind of organization of a text. Another prominent finding of her study was that cultural issue is a major factor that matters in amount of recall in specific text structures.

Previous researchers for example, Carrell (1989), Meyer and Freedle (1984) have carried out research relevant to the present study. The latter (Meyer & Freedle, 1984) examined the effect of four text structures: comparison, causation, problem/solution and collection of descriptions on students structure type. They came up with the results that more organized text types like comparison and causation seemed easier than the less organized text types like collection of descriptions that require students to recall background information. However, with reference to text structure awareness, there was no difference on awareness by students who read the comparison, causation and collection of descriptions but students were less focused and found the problem/solution texts to be more difficult.

Richgels, McGee, Lomax and Sheard (1987) applied three different measures to investigate the text structure awareness of sixth-grade students in native English. The measures used were organized as written recalls, organized compositions and the interview. The results indicated that students were more aware of comparison texts and were least aware

of the causation text structure when research on awareness was conducted across these three different measures.

Another study by Ghaith, and Harkouss (2003) on the role of text structure awareness in the recall of the four expository text types namely comparison/contrast, description/collection, problem/solution, and cause/effect structure showed that students were most aware of comparison/contrast text and least aware of the cause/effect text structure. The study also revealed that there were no significant differences between proficient and less proficient readers in text structure awareness. In another study, Zhang (2008) selected three types of text structure to study which were *description*, *comparison/contrast* and *problem-solution* and the study was on Chinese students' performance. The researchers came out with the results that the students benefitted more from highly structured texts and found existence of more linkages (cohesive devices) in the texts and they scored higher marks for compare/contrast and problem/solution text structures than descriptive text structure.

Nodoushan (2010) carried out a study among Iranian Turkish students to investigate the impact of explicit instruction of two text structures: causative and descriptive. The study was conducted on experimental and controlled groups. The outcome of the study revealed that the experimental group outperformed in both texts as compared to their controlled counterparts. The findings showed that there was a positive relationship between explicit instruction of text structure and students performance. Another finding of the study which was significant was that the description texts were found to be easier to recall than causative texts among these Iranian students.

II. THEORETICAL FRAMEWORK

The study of information text organization and structure, sometimes referred to as close readings, has long been found to positively affect students' text comprehension and composition (Pearson & Duke, 2002). In their research on teaching text structures to improve reading comprehension, Meyer and Wijkumar (2007) and Meyer (2007) showed that teaching text discourse patterns and structures through the use of model texts and then applying these in children's writing helped them to simultaneously improve comprehension and writing composition.

Narrative and expository are two major types of reading texts. Narrative texts, as the name indicates, are dealing with stories and narratives. They are mostly used in novels and stories. The expository text, on the other hand, is used to inform or describe things, people and events. They are the main sources of information and includes different types in terms of their structures: description, enumerative or listing, sequence, comparison and contrast, cause and effect and problem and solution (Fitzgerald, & Spiegel, 1983). Expository text differs greatly from narrative text in tone, style, structure, and features. First, expository texts purvey a tone of authority, since the authors possess authentic and accurate information on the subjects they write about (Fisher & Frey, 2008). Second, these texts follow a style that is distinctly different from that of narrative text. Expository text uses clear, focused language and moves from facts that are general to specific and abstract to concrete. Within expository

passage, integral passage structures, such as sequence, cause and effect, compare and contrast, and problem and solution, also must often be inferred (Meyer & Poon, 2001).

According to Meyer (1985), expository texts are structured on three levels. The highest of these - the superstructure - corresponds to the organization of the textual rhetoric. The function of this superstructure is to establish logical connections between ideas and organize them according to a hierarchy of importance, thereby distinguishing a text from a simple list of words or phrases. Meyer proposed five types of rhetorical superstructures for the expository text: description, collection, comparison, cause/effect, and problem/solution. Passage genre can also affect reading comprehension. Expository passage, as opposed to narrative prose or written stories, is nonfiction text written to provide information. He also stated that it differs significantly from narrative text (Graesser, 1981).

Although the ability to comprehend and learn from expository passage is vital for students' success in universities and for life-long learning (Durkin, 1993), narrative text often makes up the plethora of reading for early age students (Duke & Pearson, 2002). Expository text is often introduced when students make the transition from "learning to read" to "reading to learn" (Chall, 1983). The introduction of expository text, containing more difficult vocabulary and information and requiring more background knowledge for understanding, may be a contributing factor to this slump (Chall & Jacobs, 2003; Dole et al., 1991). In addition, the problems that upper-elementary students experience comprehending expository text also may be related to a passive reading approach (Williams et al., 2005) and poor metacognition (Baker & Brown, 1984). Many students have difficulty understanding, remembering, and learning from expository text, not just elementary-age students, or students who have been identified with comprehension problems (Reutzel, Camperell, & Smith, 2002; Wiley, Griffin, & Thiede, 2005; Williams et al., 2005). In addition to the structural complexity of expository text (Armbruster, 1984; Reutzel et al., 2002), Williams, Taylor, and de Cani (1984) determined that expository text is more difficult to comprehend because many of the conceptual relationships contained in this type of text are implicit and therefore must be inferred by the reader. Readers may also have more difficulty determining text structure when reading expository text because informational text often contains combinations of two or more text structure types (Meyer & Poon, 2001), including description, sequence, problem-solution, compare-contrast, and cause-effect (Anderson & Armbruster, 1984; Meyer & Freedle, 1984; Meyer, Theodorou, Brezinski, Middlemiss, McDougall, & Bartlett, 2002).

Reading is an interactive process between reader and the text which tends to automaticity (Alyousef, 2006). This interaction is an attempt to elicit meaning using a variety of knowledge such as linguistic or systemic knowledge (through bottom-up processing) as well as schematic knowledge (through top-down processing). The process of reading comprehension or understanding requires a number of cognitive factors that can be assessed, and observed indirectly (Pearson & Hamm, 2005). Comprehending of texts involves "the flexible use of different sources of information, including in some cases, the integration of linguistic information with graphic information" (Verhoeven & Perfetti, 2008, p. 293).

The process of reading comprehension or understanding requires a number of cognitive factors that can be assessed, and observed indirectly (Pearson & Hamm, 2005). A

text is an intact linguistic unit which discusses a topic about which different people have different ways of expanding (Zhang, 2008). The text, by itself, does not transfer meaning, rather, a text is only considered to be a guide for readers or listeners as to how they should organize the intended meaning from their own already existing knowledge. Since perceptions involved with the knowledge possessed by the listener or reader in addition to the information within the text, for the effective perception of the text, the capability to connect the textual material to one's previously acquired knowledge is also certainly required (Carrell, 1983).

Comprehending texts involves "the flexible use of different sources of information, including in some cases, the integration of linguistic information with graphic information" (Verhoeven & Perfetti, 2008, p. 293). Reading comprehension occurs when the meaning of a passage is totally correspondent with the network of information, established in meaningful ways in terms of a particular society. Furthermore, it is almost always assumed that students' advancing capabilities to understand language contribute largely to their reading experiences (O'Brien & Walsleben, 2006).

Students encounter difficulties while comprehending a text for a wide range of reasons including insufficiency of assurance, low decoding and fluency aptitudes, and defective strategies for setting a goal for reading, controlling one's comprehension, and solving problems (Dalton & Proctor, 2007). The text, by itself, does not transfer meaning, rather, a text is only considered as a guide for readers or listeners as to how they should organize the intended meaning from their own already existing knowledge. Since perceptions involved with the knowledge possessed by the listener or reader in addition to the information within the text, for the effective perception of the text, the capability to connect the textual material to one's previously acquired knowledge is also certainly required (Carrell, 1983).

Students may have trouble with informational text because they are not reading much informational text, so they are not familiar with this genre. Further, evidence indicates that comprehension instruction does not occur in many upper grade classrooms, both elementary and secondary (Durkin, 1979; Pressley, 2002). Another reason is that the comprehension instruction that students do receive, if any, does not foster the development of conceptual understanding and meaningful learning (Armbruster et al., 1990).

The results of a study done by Hall, Sabey, and McClellan (2005) indicated that text structure training made learners able to use two expository text comprehension strategies more effectively. These learners achieved a conceptual understanding of compare and contrast and produced more structured summaries than did those who received content-only instruction or no instruction. A large number of studies have been done with the intent to explore the process of reading. Nevertheless, it is still a phenomenon which remains largely unsolved, and there is not even a commonly approved extensive theory behind it (Cekic, 2007). Nevertheless, reading is beheld as a main origin of intelligible input and as an experience that many earnest learners most need to apply (Gilakjani & Ahmadi, 2011).

III. RESEARCH QUESTION

The purpose of this study is to address the research gap in the area of reading comprehension in the EFL context like Iran by measuring the effectiveness of training information processing through text structure strategies on EFL learners' expository reading comprehension. To do this, the following research question is posed:

- Does training information processing through text structure strategies have a significant effect on Iranian EFL learners' comprehension of expository passages?

IV. METHODOLOGY

A. Participants

A sample of 60 Iranian EFL learners who were studying English in one of the English Language Institute in Hamedan was selected based on their performance on the Nelson English language test (Fowler & Norman, 1976). They were native speakers of Persian and their age ranged from 14 to 16. They were then randomly assigned to two equal groups of control and experimental.

B. Measures

In the current study, two measures were used to collect the required data. The detailed description of instruments is as follows.

1. Nelson English Language Test

The Nelson test included 50 multiple-choice items consisting of 37 structure questions, 7 lexical and 5 pronunciation questions, each of which one point was assigned. The participants were given 40 minutes to answer it. This test was used in order to manifest the learners' homogeneity in terms of language proficiency before embarking on the research.

2. Reading Section of Preliminary English Test (PET)

The reading section of PET was used in order to assess students' level of reading. It consisted of 35 items with five separate reading tasks in all, Parts 1–5. These parts were designed to test a broad range of reading skills. Texts were drawn wherever possible from the real world and were adapted as necessary to the level of the PET examination.

Part 1 measured the learners' understanding of various kinds of short texts: authentic notices and signs, packaging information (for example, instructions on a food package or a label on a medicine bottle), and communicative messages (notes, e-mails, cards and postcards). Following the text was one multiple-choice question with three options, A, B and C.

Part 2 measured the participants' comprehension of factual material. It consisted of five short descriptions of people and the learners had to match this content to five of eight short texts on a particular topic. The topic was usually to do with goods and services of some kind, for example purchasing books, visiting museums, staying in hotels or choosing holidays. The participants began Part 2 by reading through the five descriptions of the people. They then read through all eight texts carefully, underlining any matches within them. In order to choose the correct text, candidates needed to check that all the requirements given in the description are met

Part 3 assessed the learners' ability to work with a longer, factual text, looking for precise information. The information to be found is usually practical in nature, resembling the type of task with which people are often confronted in real life. Frequently, these texts take the form of brochure extracts, advertisements in magazines and website information. There are ten questions, which are single-sentence statements about the text. The task is made more authentic by putting these questions before the text, in order to encourage candidates to read them first and then scan the text to find each answer. The information given in the text follows the same order as the content of the questions.

Part 4 presents candidates with a text which goes beyond the provision of factual information, and expresses an opinion or attitude. There are five multiple-choice questions with four options, A, B, C and D. In answering these questions, candidates will demonstrate whether they have understood the writer's purpose, the writer's attitude or opinion, or an opinion quoted by the writer, and both the detailed and global meaning of the text.

Part 5 consisted of a short text containing ten numbered spaces and an example. There was a four-option multiple-choice question for each numbered space, given after the text. The spaces were designed to test mainly vocabulary, but also grammatical points such as pronouns, modal verbs, connectives and prepositions.

C. Procedure

In this study, it was proposed that teaching reading strategies (as specific learning processes that foster active, component, self-regulated, and intentional reading) necessary for comprehending expository text would help improve comprehension of exam texts. These strategies include activating prior knowledge and building background, understanding of text features, vocabulary instruction, identifying key concepts in a text, and synthesizing understanding with writing summaries.

At the first stage, Nelson English language test as a proficiency test was administered and according to the results of this test those students whose scores were between one standard deviation minus and plus the mean were selected to participate in the study. The participants ($n = 60$) involved in this study were randomly divided into two groups. One of these two groups was taken as control group and the other as experimental group randomly. Both control and experimental groups took the reading part of a PET as the pre-test. The study was conducted during 12 class sessions. Control group was assessed according to traditional methods. In other words, they read a text from Interactions 2 Reading book and

accomplished the provided exercises. But, experimental group was assessed based on the principles of information processing through text structure strategies. Like control group, the experimental group read a text from Interactions 2 Reading book and accomplished the provided comprehension exercises.

Before reading strategies were applied in this study, the students were asked to briefly look through the reading and think about what they already know about the topic (before reading strategies phase). Students also looked at the title, headings, pictures and their captions, vocabulary words, and chapter questions to predict what they would be learning about. The during-reading strategies included writing information in a graphic organizer- and the discussion of self-made questions and textbook questions. The after-reading strategies were writing a summary of the reading.

In Pre-reading phase, the students were asked to read the lesson title and look at the names, definitions of the lesson's vocabulary and brainstorm everything they knew about the topic. Students were given anywhere from 5-10 minutes to review the text. Next, the students began to find the title and write it at the top of the paper since the title helps the students understand what the topic for that particular chapter is. Then, they were asked to identify the vocabulary items in the text. Students drew a matrix with rows and columns to write the word, and meaning. They were supposed to read all the headings and put them into a graphic organizer. To do this, the participants counted the number of headings, and if there are four, then they draw four boxes, label the top of each box with the name of the heading. They also studied the pictures and read the captions so that students did not miss important information by skipping the pictures or the captions. Students were even encouraged to put notes from the captions in the graphic organizer. Finally, they were asked to take the notes from the graphic organizer and write a summary.

During reading phase, the participants of the experimental group were given their reading assignment. The teacher read with the class the first heading to model how to read, paraphrase meaning, and write notes. Then, the students read one heading at a time with their teams. After taking turns reading and paraphrasing information, they decided what information should go in the note section for that heading. They also answered any questions the section asked and also wrote questions to quiz each other while the other groups were finishing up. When students finished with one heading, the teacher checked notes with the whole class to make sure they were writing down the most important information. After students checked their notes, they continued to work in their teams to do the same thing for the next heading.

The last phase, after reading, there were organized different sessions to conduct the project. The first session was arranged for students' familiarity with different types of texts consisting of narrative, expositing, while the samples of texts and different types of expository writing including description, sequence, contrast. The students were asked to write down the general features of each text and to identify them through the main features they had learnt. After the reading and note-taking was completed, students were ready to write a summary of their own about the lesson. The teacher modeled for the first 3 lessons how to set

up a summary with the lesson's title to be included in the topic sentence, each heading being a fact, and the notes they took as explanations for their facts.

On the second session, the students were given different types of texts in the first type of expository writing (description) and they were asked to identify the text through graphic organizers. Their background knowledge was activated, made predictions about what they would learn in the lesson, filled out a before-reading anticipation guide, and conducted a short investigation.

On the third session, the sequence type was taught and some texts were analyzed. The learners organized their notes similar to what they did in pre-reading phase. The students looked at text features such as the title, headings, vocabulary, pictures and captions, and lesson questions. After their notes were set up, the students were ready to read the first section of their textbook (sections were based on headings—students read one heading at a time and took notes). Students read one section, took notes, and went over notes with the teacher.

On the fourth session, the cause and effect type of the text was taught and some texts were analyzed. On the fifth day, problem and solution taught and some texts were analyzed. The students quickly reviewed with the teacher the vocabulary and the concepts learned the day before. The students then continued to read each section, take notes, and check their notes with the teacher (teacher also clarified any misconceptions by answering students' questions). Then, on the sixth session, compare and contrast passages were taught and some texts were analyzed. The students quickly reviewed with the teacher the vocabulary and the concepts learned the session before. They were then asked to write a summary.

On the seventh session, the expository texts with different structures were taught and the texts were analyzed. The students quickly reviewed with the teacher the vocabulary and the concepts learned the days before. Students then filled out their after-reading anticipation guide and took quiz generated by the researcher. On the eighth session, the skills of answering questions of idea type consisting of 2 skills of answer main idea question and recognize the organization of ideas focusing on tests. On the ninth session, taking post-test 1 including questions about text structure and skills about the ideas of the passage. On the tenth session, working on vocabulary questions in 4 skills was carried out. Eleventh session was dedicated to taking post-tests for post-test 2 for text structure and skills of words.

All the texts for Idea and vocabulary tests were taken from Interactions 2 Reading Book. After finishing the 12th session, the post-test was given to the students in two groups and its results were compared to the results of the pre-test to investigate the effect of information processing through text structure strategies the experimental group.

V. RESULTS AND DISCUSSION

In order to answer the research question of the study in finding the significant effect of training information processing through text structure strategies on Iranian EFL learners' comprehension of expository passages, analysis of covariance (ANCOVA) was applied. To

gain insights into the average performance and variance of the participants on pre-test and post-test, descriptive statistics including mean and standard deviation were calculated.

Table 1: Descriptive Statistics for the experimental group

		N	Minimum	Maximum	Mean	Std. Deviation
Pretest	Total	30	10.00	60.00	35.33	14.33
Posttest	Total	30	51.00	94.00	74.83	11.89

According to this table, the mean scores of the participants on pre-test was changed from 35.33 to 74.33 in posttest. The results of ANCOVA is shown in Table 2.

Table 2: Multivariate Tests

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8955.716 ^a	2	4477.858	57.869	.000
Intercept	18878.885	1	18878.885	243.978	.000
pretest	3784.900	1	3784.900	48.913	.000
group	4651.710	1	4651.710	60.116	.000
Error	4410.634	57	77.380		
total	271174.500	60			
Corrected Total	13366.350	59			

The results show that there is a significant difference between the mean scores of the pre-test and post-test in experimental group ($F = 60.12$, $p < .05$). Therefore, the comprehension of expository texts was significantly improved in experimental group in comparison to the participants of control group who did not receive the training.

It was found that information processing strategies could improve Iranian EFL learners' reading comprehension of expository texts more than routine and traditional techniques of reading comprehension such as background knowledge activation. This finding

provided the evidence of the superiority of training on information processing of reading texts.

The results of this study supported the findings of a number of previous research studies such as Armbruster, Anderson and Ostertag (1987); Berkowitz (1986); Englert and Hiebert (1984), Taylor, (1982), Williams et al, (2005) who have shown that explicit instruction of expository text structures improved middle school students' reading comprehension.

The findings of the present study also confirm those of Carrell (1989) who found that texts with specific logical patterns of organization, such as comparison, contrast, problem solution, and cause-effect, are more likely to require recall and comprehension rather than texts organized loosely around the collection of facts.

This study also support the results of Meyer and Freedle (1984) who examined the effect of four text structures: comparison, causation, problem/solution and collection of descriptions on students structure type and found that more organized text types like comparison and causation seemed easier than the less organized text like collection of descriptions that require students to recall background information. In similar manner, the findings of this study acknowledge those of Richgels, McGee, Lomax and Sheard (1987) who applied three different measures of written recalls, organized compositions and the interview and concluded that students were more aware of comparison texts and were least aware of the causation text structure when research on awareness was conducted across these three different measures.

The findings of this study were in line with those of Zhang (2008) whose results indicated that students benefitted more from highly structured texts and found existence of more linkages (cohesive devices) in the texts and they scored higher marks for compare/contrast and problem/solution text structures than descriptive text structure.

This study showed similar results to those of Nodoushan (2010) carried out a study who investigated the relationship between explicit instruction of causative and descriptive text structures and EFL learners' performance. The findings showed that there was a positive relationship between explicit instruction of text structure and students performance.

However, the findings of this study are not able to support what Ghaith, and Harkouss (2003) found in their study regarding the role of text structure awareness in the recall of the expository text types and found that readers' ability did not have any role in text structure awareness.

In addition, the findings of this study were able to support those of Dickson, Simmons and Kameenui (2001) who found that awareness of text structures is highly related to reading comprehension.

In line with the findings of the present study, Hall, Sabey, and McClellan (2005) found that the readers who understand how a text is structured were more successful in identifying important information and relationships between ideas

VI. CONCLUSION

Reading comprehension is an interactive process between the reader and the text as well as the interaction between information processing strategies. The results of this study supported the use of information processing strategies in reading as they allow the students to comprehend more information, associate it with other ideas and incorporate new ideas into their prior knowledge. Therefore, when information is decoded by using both ideas and structure modalities, learning will be easier.

It can be inferred from the results of this study that the use of information processing strategies can contribute to save time and energy as it summarizes the information. The use of information processing strategies, in contrast to convenient techniques which its use is limited to the specific stage of reading instruction, can be used in different stages of teaching reading.

From this study, it was found that EFL learners' overall reading comprehension ability of expository texts was significantly improved after they had been trained to use their information processing strategies. The present study filled a gap on the effectiveness of two instructional techniques and strategies in reading comprehension. This interactive pedagogy allows EFL learners to practice and engage in text structures within a more communicative setting. Training on information processing strategies are distinctly different from conventional reading instruction methods as target structures, patterns and activities are generally presented within communicative contexts. Conversely, reading instruction that is currently presented in the conventional de-contextualized method in Iranian language classrooms can be revitalized within similar contexts like information processing text structures. If students could apply the two theories into their reading comprehension classes, they would make great progress in having a good command of this language skill.

The interactive nature of the information processing strategies provides a balance in language learning and it was proved to be a confident way of enhancing reading comprehension. The use of these instructional techniques is also characterized as an effective way of vocabulary learning for EFL learners since they are contextualized, provide deep senses of language use and learner-based classroom as the reading comprehension is the result of learner's efforts.

From a pedagogical viewpoint, it is plausible to recommend language teachers consider different learning conditions, role of information processing strategies because they definitely have significance for teaching purposes as the findings suggest. Teachers can implement these important points in the process of teaching reading and help the learners make significant improvement.

In classroom situation, teachers can lower the learners' stress and anxiety by choosing the information processing strategies and providing a friendlier and less authoritative classroom. This can help them improve their risk-taking more than before and students will be encouraged to participate in class activities.

The reasons why Iranian EFL students are weak in reading comprehension of different text structures still needs to be explored. Also, using a larger population of students contributes to generalizability of the results. This is another issue worth trying.

Research can be designed to focus on finding which instructional strategies under reading comprehension situation are most applicable to students of lower and average reading abilities and which strategies are most effectively used by high ability learners under the same conditions to learn more.

REFERENCES

- Akhondi, M., Malayeri, F. A. and Samad, A. A. (2011), How to Teach Expository Text Structure to Facilitate Reading Comprehension. *The Reading Teacher*, 64, 368-372.
- Alyousef, H. S. (2006). Teaching reading comprehension to ESL/EFL learners. *Journal of Language and Learning*. 5(1),63-73.
- Anderson, R. C. (1978). "Schema-Directed Processes in Language Comprehension."In *Cognitive Psychology and Instruction*, ed. Alan M. Lesgold, James W. Pellegrino, Sipke D. Fokkema, and Robert Glaser. New York: Plenum.
- Anderson, T. H., & Armbruster, B. B. (1984). Content area textbooks. In R. C. Anderson, J. Osborne, & R. J. Tierney (Eds.), *Learning to read in American schools: Basal readers and content texts* (pp. 193-226). Hillsdale, NJ: Erlbaum.
- Anderson, R. C., & Pearson, P. D. (1984).A schema-theoretic view of basic processes in reading comprehension. In P. D. Pearson (ed.), *Handbook of reading research* (pp. 255-291). New York: Longman.
- Armbruster, B. B. (1984). The problem of "inconsiderate" text. In G. G. Duffy, L. R. Roehler, & J. Mason (Eds.), *Comprehension instruction: Perspectives and suggestions*(pp. 202-217). New York: Longman
- Armbruster, B. B. (1986). Schema theory and the design of content-area textbooks. *Educational Psychologist* 21, 253–267.
- Armbruster, B. B., Anderson, T. H., & Meyer, J. L. (1990).*The framing project: A collaboration to improve content area reading using instructional graphics* (Tech. Rep.). Urbana, IL: University of Illinois, Center for the Study of Reading.
- Armbruster, B., Anderson, T., & Ostertag, J. (1987). Does text structure/summarization instruction facilitate learning from expository text? *Reading Research Quarterly*. 22, 331-346.
- Arslan, R. Ş. (2013). An investigation of prospective English language teachers' spoken communication skills: a case from Turkey. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi [Hacettepe University Journal of Education]*, 28 (1), 27-40.

- Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 353–394). White Plains, USA: Longman.
- Berkowitz, S. (1986). Effects of instruction in text organization on sixth-grade students' memory for expository reading. *Reading Research Quarterly*, 21, 161-178.
- Carrell, P. L. (1983). Three components of background knowledge in reading comprehension. *Language Learning*, 34 (1), 87-112.
- Carrell, P. L. (1989). Metacognitive awareness and second language reading. *Modern Language Journal*, 73, 121-133.
- Cekic, H. (2007). Separate and simultaneous cumulative effects of content and formal schemata on Turkish EFL learners' reading. *Sosyal Bilimler Dergisi*, 1 (1), 447-465.
- Chall, J. S. (1983). *Stages of Reading Development*. New York: McGraw-Hill.
- Chall, J. S., & Jacobs, V. A. (2003). The classic study on poor children's fourth-grade slump. *American Educator*, 27(1), 14–15,
- Cochran & Hain (2012). *What is Text Structure*. Retrieved from <http://www.google.com.hk/>
- Cooper, G. (1998). Research into cognitive load theory and instructional design at UNSW. Retrieved December 19, 2013, from <http://dwb4.unl.edu/Diss/Cooper/UNSW.html>
- Dalton, B., & Proctor, C. P. (2007). Reading as thinking: Integrating strategy instruction in a universally designed digital literacy environment. In D. S. McNamara (Ed.), *Reading comprehension strategies: Theories, interventions, and technologies* (pp. 421-439). Mahwah, New Jersey: Lawrence Erlbaum Association Inc.
- Dickson, S. V., Simmons, D. C., & Kameenui, E. J. (2001). *Text organization and its relation to reading comprehension: A synthesis of the research*. Washington, D.C.: National Center to Improve the Tools of Educators.
- Durkin, D. (1993). *Teaching them to read* (6th ed.). Boston: Allyn & Bacon.
- Englert, C. S. & Hiebert, E. H. (1984). Children's developing awareness of text structure in expository materials. *Journal of Educational Psychology*, 76, 65-74.
- Dole, J. A., Duffy, G. G., Roehler, L.R., & Pearson, P.D. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research*, 61(2), 239–264.
- Duke, N. K., & Pearson, P. D. (2002). Effective Practices for Developing Reading Comprehension. *Scholastic Reading*, 1 (1), 1-27.
- Durkin, D. (1979). What classroom observations reveal about reading comprehension instruction. *Reading Research Quarterly*, 14, 481–533.
- Englert, C. S. & Hiebert, E. H. (1984). Children's developing awareness of text structure in expository materials. *Journal of Educational Psychology*, 76, 65-74.

- Fisher, D., & Frey, N. (2007). Implementing a School wide Literacy Framework: Improving Achievement in an Urban Elementary School. *The Reading Teacher*, 61 (1), 32-45.
- Fisher, D., Frey, N., & Lapp, D. (2008). Shared readings: Modeling comprehension, vocabulary, text structures, and text features for older readers. *The Reading Teacher*, 61, pp. 548-557.
- Fitzgerald, J., & Spiegel, D. L. (1983). Enhancing children's reading comprehension through instruction in narrative structure. *Journal of Reading Behavior*, 15, 1-17
- Fitzgerald, J., & Graves, M. F. (2005). Reading Supports for All. *Educational Leadership*. 62 (4), 68-71.
- Fowler, W. S. & Norman, C. (1976). *Nelson English language tests*. Walton-on-Thames, Surrey: Nelson
- Ghaith, G.M., & Harkouss, S.A. (2003). Role of text structure awareness in the Recall of expository discourse. *Foreign Language Annals*, 36(1), 86-96.
- Gilakjani, A. P., & Ahmadi, S. M. (2011). The Relationship between L2 Reading Comprehension and Schema Theory: A Matter of Text Familiarity. *International Journal of Information and Education Technology*, 1 (2), 142-149
- Graesser, A. C. (1981). *Prose comprehension beyond the word*. New York: Springer.
- Hall, K., Sabey, B., & McClellan, M. (2005). Expository text comprehension: Helping primary-grade teachers use expository texts to full advantage. *Reading Psychology: An International Quarterly*, 26(3), 211-234.
- Meyer, J. B. F. (1985). Prose analysis: Purposes, procedures, and problems. In B.K. Britten & J.B. Black (Eds.), *Understanding expository text: A theoretical and practical handbook for analyzing explanatory text* (pp. 11–64). Hillsdale, NJ: Erlbaum.
- Meyer, J. B. F. (2003). Text coherence and readability. *Topics in Language Disorders*, 23(3), 204–224.
- Meyer, B. J. F., Brandt, D. M., & Bluth, G. J. (1980). Use of top-level structure in text: Key for reading comprehension of ninth-grade students. *Reading Research Quarterly*, 16, 72–103.
- Meyer, B. J. F., & Poon, L. W. (2001). Effects of structure strategy training and signaling on recall of text. *Journal of Educational Psychology*, 93, 141-159.
- Meyer, B. J. F., Middlemiss, W., Theodorou, E. S., Brezinski, K. L., McDougall, J., and Bartlett, B. J. (2002). Effects of Structure Strategy Instruction Delivered to Fifth-Grade Children via the Internet With and Without the Aid of Older Adult Tutors. *Journal of Educational Psychology*, 94, 486-519.

- Meyer, B. J. F., & Wijkumar, K. (2007). A web-based tutoring system for the structure strategy: Theoretical background, design, and findings. In D. S. McNamara (Ed.), *Reading Comprehension Strategy: Theories, interventions, and technologies* (pp. 347-374). Mahwah, NJ: Lawrence Erlbaum Associates.
- Meyer, B. J. F., & Freedle, R. O. (1984). Effects of discourse type on recall. *American Educational Research Journal*, 21, 121-143.
- O'Brien, M. K., & Walsleben, L. (2006). Teaching English Learners in the Mainstream Classroom. Presentation for Franklin Central, NE, & NW Supervisory Unions, St. Albans, Vermont.
- Pearson, P. D. & Duke, N. K., (2002). Effective Practices for Developing Reading Comprehension. *Scholastic Reading*, 1 (1), 1-27.
- Pearson, P. D., & Fielding, L. (1991). Comprehension instruction. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research*, (Volume II, pp. 815-860). New York, USA: Longman.
- Pearson, P. D. & Hamm, D. N. (2005). The assessment of reading comprehension: A review of practices – past, present, and future. In S. G. Paris, & S. A. Stahl (Eds.), *Children's reading comprehension and assessment*. (pp. 131 -160). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Pressley, M. (2000). What should comprehension instruction be the instruction of? In M. L. Kamil, P. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 545–561). Mahwah, NJ: Erlbaum.
- Reutzel, D., Fawson, P., & Smith, J. (2008). Reconsidering silent sustained reading: An exploratory study of scaffolded silent reading. *Journal of Educational Research*, 102(1), 37-50.
- Reutzel, D. R., Camperell, K., & Smith, J. A. (2002). Hitting the wall: Helping struggling readers comprehend. In C. C. Block, L. B. Gambrell, & M. Pressley (Eds.), *Improving comprehension instruction: Rethinking research, theory, and classroom practice*. San Francisco, CA: John Wiley & Sons.
- Richgels, D. J., McGee, L. M., Lomax, R. G., & Sheard, C. (1987). Awareness of four text structures: Effects on recall of expository text. *Reading Research Quarterly*, 22, 177–196. doi:10.2307/747664
- Salmani-Nodoushan, M. A. (2010). The impact of formal schemata on L3 reading recall. *International Journal of Language Studies (IJLS)*, 4(4), 357-372.
- Spivey, N.N. & King, J. R. (1989). Readers as writers composing from sources. *Reading Research Quarterly*, 24, 7–26

- Sweller, J., van Merriënboer, J. J. G., & Paas, F. G. W. C. (1998). Cognitive architecture and instructional design. *Educational Psychology Review*, 10 (3), 251–296.
- Taylor, B. M. (1982). Text structure and children's comprehension and memory for expository material. *Journal of Educational Psychology*, 74(3), 323-340.
- Van Dijk, T. A. & Kintsch, W. (1983). *Strategies of discourse comprehension*. New York: Academic Press.
- Verhoeven, L. & Perfetti, C. (2008). Advances in text comprehension: Model, process and development. *Applied Cognitive Psychology*, 22, 293 – 301.
- Wiley, J., Griffin, T. D., & Thiede, K. W. (2005). Putting the comprehension In meta comprehension. *Journal of General Psychology*, 132, 408-428.
- Williams, J., Hall, K., Lauer, K., Stafford, K., DeSisto, L., & deCani, J. (2005). Expository text comprehension in the primary grade classroom. *Journal of Educational Psychology*, 97(4), 538-550.
- Wittrock, M. C. (1990). Generative processes of comprehension. *Educational Psychologist* 24(4), 345-376.
- Zhang, X. (2008). The effects of formal schema on reading comprehension: An experiment with Chinese with Chinese EFL readers. *Computational Linguistics and Chinese Language Processing*, 13(2), 197-214.