

Mining Perspective and Rhetorical Patterns in Reading for Revision: A Case Study of Iranian Intermediate EFL Readers

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Abstract—This paper aims to find how reading skills are influenced by metacognitive strategies of revising and text-mining in Iranian intermediate students majoring in English Translation. A total number of 70 students participated in 2 series of consciousness-raising instructions. The first line of instructional trainings in this study followed from 20 sessions of instruction in reading metacognitive awareness and revising strategies and the second encompassed 20 sessions of instruction on expository rhetorical patterns and their associate discourse markers. Many research studies have proved the role of metacognitive awareness in students' learning outcome and achievement; however, in this study, the effects of such awareness of revision strategies were not found to be promising in lower-intermediate EFL learners. To address this drawback, the second line of instructional trainings began: the quantitative and qualitative results of this study satisfactorily demonstrated that the lower-intermediate students as well as the upper-intermediate ones developed their reading skills through their awareness of rhetorical organizations and their discourse markers. Pedagogical implications of these findings are discussed in relation to Iran's instructional status.

Index Terms—metacognition, revising strategies, text-mining, rhetorical patterns, discourse markers

I. INTRODUCTION

What we learn from reading practice may differ depending on our purpose of reading and reading tasks involved. Generally, reading is encouraged for the matter of text comprehension. Some other ways of reading, however, may have the characteristics which are missing in reading for comprehension and yet important (Yoshimura, 2009, p. 1872). Hayes (1996) compared reading for revision with reading for comprehension and found that when people read to revise, they pay close attention to language form for the problems and effectiveness.

In addition, reading for revision occurs when readers are forced to see the text from a writer's perspective. Anticipating writing (output) may itself shift the reader's attention toward important input for their own output (Yoshimura, 2006). "Mining" advocated by Greene (1993) may also shift readers' attention toward useful input for other domains of language learning. According to Greene (1993, p. 36), mining is "part of an ongoing effort to learn specific rhetorical and linguistics conventions" from reading and make them "their own repertoire for writing on different occasions". Thus, reading behavior and what can be learned from reading may change depending on the characteristics of a specific reading task.

In 1992, Greene explored some ways students employ metacognitive strategies which are involved in recognition of these organizational patterns. He termed such techniques "mining", a text-reconstructing context for inferring or imposing structure and seeing choices in language. Mining suggests a strategic process that consists of mapping out the territory by examining the situation or context. It also entails imposing or inferring the *rhetorical structure* based on informed guesses about where the object or objects of inquiry might lie, as well as exploring possible options and choices by representing one's plan in different ways in language (Greene, 1992, p. 155).

In addition to exploring the relationships between learner metacognition and performance, researchers are interested in the effects of metacognitively-oriented strategic instruction on reading comprehension (Alderson, 1984; Garner, 1994; Bernhardt, 2000; Chamot, 2005; Zhang, 2010). The efforts are aimed at developing learner autonomy, independence and self-regulation. It is crucial for EFL readers to be aware of what metacognitive strategies of reading tasks are and how they can employ the strategies to monitor and evaluate rhetorical structures and finally revise their comprehension. Considering the significance of metacognitive awareness of reading strategies and explicit knowledge of rhetorical patterns and their associate discourse markers, the present study formulated the following research questions:

1. In what way metacognitive strategies of revision improve the process of reading comprehension in Iranian intermediate EFL readers?

2. Does knowledge of rhetorical structures and the practice of text-mining assist reading skills?

II. REVIEW OF LITERATURE

Simple comprehension of meaning of words is not sufficient to comprehend a text while reading. Recent studies also show that effective and good readers undergo constructive and reconstructive processes by undertaking certain mental activities. Explicit awareness upon one's own learning and active application of revising techniques in one's learning process are highly effective both on achieving comprehension in reading and realization of learning (Lenski & Lewis, 2008; Keer & Verhaeghe, 2005; Wormeli, 2004; Allen, 2003).

A. *Metacognition*

At the heart of metacognitive instruction is the concept of metacognition which was introduced in cognitive psychology more than thirty years ago by Flavell (1976). Metacognition is defined as "cognition about cognition" or "knowing about knowing" or "awareness and management of one's own thought" (Kuhn & Dean, 2004, p. 270). Flavell also asserted that metacognition includes 'the active monitoring and consequent regulation and orchestration' of information processing activities (1976, p. 232). It involves knowledge about when and how to use particular strategies for learning or for problem solving (Metcalf & Shimamura, 1994) or as Birjandi (2006) believes it is as the 'seventh sense' and one of the mental characteristics that successful learners use.

It has been found that explicit metacognitive knowledge about task characteristics and applying appropriate strategies for task solution is a major determiner of language learning effectiveness (Mahmoudi et al., 2010). The reason lies in the fact that metacognitive strategies enable learners to play active role in the process of learning, to manage and direct their own learning and eventually to find the best ways to practice and reinforce what they have learned (Chari et al., 2010). This puts them in a privileged position to process and store new information and leads to better test performance, learning outcome, and better achievement (Mokhtari et al., 2002; Zimmerman et al., 2001).

Moreover, metacognitive knowledge characterizes the approach of expert learners to learning (Wong, 1986; Nickerson et al., 1985; Baker & Brown 1984), it enhances learning outcomes (Dickinson, 1995; Zimmerman & Bahdura, 1994), facilitates information recall (Nickerson et al., 1985), assists comprehension of written texts (Schommer, 1990; Brown et al., 1986), improves the rate of progress in learning (Victori & Lockart, 1995) and the quality and speed of learners' cognitive engagement (Pintrich et al., 1993).

B. *Metacognitive Strategies of Revision*

Metacognitive strategies are especially ubiquitous when it comes to the discussion of self-regulated learning. Being engaged in metacognition is a salient feature of good self-regulated learners. The strategies of selection and application include those concerned with an ongoing attempt to plan, check, monitor, select, *revise*, and evaluate (Brown, 2000, p. 133).

Among the less explored facets of metacognitive strategies are the revising strategies which are tightly related to two processes of monitoring and evaluation. According to Carter and Nunan (2001, p. 221-225), revision means going over a text in order to:

1. Check your understanding.
2. Make links between different topics to see how the whole subject fits together.
3. Remind yourself of material you have forgotten.
4. Reinforce your learning.
5. Identify and fill gaps in your knowledge.

If these characteristics are integrated and implemented in reading instructions, learners may reinforce their reading comprehension while they read for revision.

C. *Rhetorical Patterns and Text Mining*

Text mining, practically fostered through awareness of 'rhetorical organization', refers to the process of deriving high-quality information such as patterns and trends from text (Greene, 1992, p. 155). Mining a text usually involves the process of deriving patterns within the structured data, and finally evaluation and interpretation of the text. Typical text mining tasks include text categorization, text clustering, concept/entity extraction, production of granular taxonomies, sentiment analysis, document summarization, and entity relation modeling (i.e., learning relations between named entities).

'Rhetorical organization' is part of the macrostructure of a text and contains the logical organization of the text which the writer has used to represent the intended meaning (Sharp, 2002, p. 112). As readers interact with the text to construct meaning, their comprehension is facilitated when they organize their thinking in a manner similar to that used by the author. Readers who struggle with text comprehension sporadically do so because they fail to recognize the organizational structure of what they are reading, and they are not aware of cues that guide them to particular text structures. Meyer (1975) and Armbruster (1984), among others, have recognized five groups of rhetorical relations in expository texts:

1. *Listing*: a listing of items or ideas where the order of presentation of the items is not significant.

2. *Comparison/contrast*: a description of similarities or differences between two things.
3. *Temporal sequence*: a sequential relationship between ideas or events considered in terms of the passage of time.
4. *Cause-effect*: an interaction between at least two ideas or events, one considered a cause or reason and the other an effect or result.
5. *Problem-solution*: this is similar to the cause-effect pattern in that two factors interact, one citing a problem, the other a solution to that problem.

Writers use discourse markers as cohesive devices that cue text function, coherence relations, marking transition points within a sentence and between sentences; consequently, to understand the written texts, readers are expected to signal how rhetorical patterns of texts are organized through discourse markers (Grabe, 1997, 2000). One effective way to help students identify expository rhetorical structures is to teach words and phrases that frequently signal organization. For example, if students acknowledge that words such as like, unlike, and in contrast are often used when one thing is being compared to another, they can readily spot the author's intention and they'll be better equipped to understand the text as a whole.

Teaching rhetorical patterns

A major issue concerning the influence of text structure is the extent to which such knowledge can be directly taught to students so that it will lead to improved comprehension. There are two major lines of research on the effect of text structure instruction. The first line of research involves the impact of direct instruction, which explicitly raises student awareness of specific text structuring (Carrell, 1985; Armbruster et al., 1987; Miller & George, 1992; Duke & Pearson, 2002). This research emphasizes the uses of transition words, topic sentences, sentence-initial phrases, anaphoric linkages and definite reference to prior text ideas, and the role of various grammatical structures to build coherence in texts.

The second line of research develops student awareness of text structure through graphic organizers, semantic maps, outline grids, tree diagrams, and hierarchical summaries (Taylor and Beach, 1984; Alvermann, 1986; Berkowitz, 1986; Guri-Rosenblit, 1989; Armbruster, et al., 1991; Tang, 1992; Taylor, 1992; Vacca & Vacca, 1999; Trabasso & Bouchard, 2002; Vacca, 2002). This research demonstrates that students comprehend texts better when they are shown visually how text information is organized (along with the linguistic clues that signal this organization).

D. The Importance of This Study

One of the biggest challenges facing reading teachers in Iran's EFL educational settings is how to teach reading comprehension skills and not just assess comprehension. Comprehension questions can be very useful if they initiate discussion about how to monitor and evaluate reading processes, how the text is organized, and where to explore the main information in the text for detailed understanding. Providing students the metacognitive knowledge of predicting, clarifying, summarizing, monitoring and revising, noting rhetorical organization, and recognizing their pertinent discourse markers can lead to real comprehension instruction for students. But can such kind of metacognitive awareness necessarily lead to practical and strategic techniques of reading? The researchers of this study noted that metacognitive knowledge and metacognitive strategies are two distinct components of the term metacognition and there might be cases that turning such knowledge into practice would be unworkable for some students.

On the other hand, when considering more advanced EFL students, a much greater emphasis is typically placed on expository prose processing (Grabe, 2002, p. 9). These students need to understand the more abstract patterns of text structuring in expository prose, which informs the reader's efforts at comprehension. But there is a noteworthy problem in Iran's English curriculum that such resourceful knowledge of text is provided when students are passing writing courses while they have passed the reading courses without having any understanding of text organization. This study tends to prove the possible influences of familiarity with rhetorical structures on reading abilities of Iranian intermediate language learners (freshmen and sophomores).

III. METHOD

A. Participants and Setting

The sample population included 70 sophomores majoring in English Translation in Academic Centre of Education, Culture, and Research (ACECR), Ahvaz, Iran, from two English reading classes. Their age range was nineteen to twenty-two and the research was conducted throughout two semesters in the 2010-2011 education years; the classes were co-educational and held twice a week.

B. Materials

The data for this study were collected through two subsequent semesters. In the first semester, students participated in a simulated TOEFL iBT proficiency test; the test was extracted from "Barron's Educational Series: TOEFL iBT", 13th ed., 2010. Next, there was a pre-instruction reading tasks test. Then, for the instruction of metacognitive strategies, a comprehensive pamphlet, devised by Vandergrift (2003), was provided for the experimental group to raise students' awareness about metacognitive strategies applicable in reading tasks. To measure such awareness of strategic reading processes before, while, and after reading tasks, a questionnaire was designed which was the combination of two: one devised by Schmitt (1990) and the other provided by Doty, Cameron, and Barton (2003) which aimed to measure

reading metacognitive knowledge. At the end of the semester, there was a post-instruction assessment of the same reading tasks involved in the pre-instruction but reasonably the text were more advanced.

The second semester was devoted to the rhetorical patterns instruction. All the students participated in a pre-test reading exam to reestablish their initial status. After 20 sessions of instruction of five expository rhetorical patterns and their associated discourse markers, a post-instruction assessment of reading skills was conducted to check whether there was any significant difference between the experimental and control groups' reading skills.

C. Procedures

Following the aims of this study, at the beginning of the first semester, students' English proficiency was measured by a simulated TOEFL iBT test; the test was extracted from "Barron's Educational Series: TOEFL iBT", 13th ed., 2010. Their scores ranged from 30 to 64, which is indicative of intermediate level. According to the test result, the population was divided into two groups of reasonably parallel experimental and control.

During the first week of the first semester, all the students sat for a pre-instruction reading tasks test. The test took a complete session; students were assigned to answer questions including techniques such as: skimming and scanning, clarifying text meaning, summarizing, guessing the meaning of new words through the context provided by the original author or through the analysis of the word stems and affixes, and predicting what will come later (Grabe & Stoller, cited in Cele-Murica, 2001, p. 195). The reading passages were authentic and were carefully selected from the book "Inside Reading 2", published by Oxford University Press, 2009.

The third phase was the instruction of metacognitive strategies, specifically the techniques of revision: during 14 weeks, 20 strategy training sessions were conducted for students in the experimental group. The implementation was carried out in two steps: The first step focused on providing students a comprehensive pamphlet based on the one devised by Vandergrift (2003) to raise awareness about metacognitive strategies applicable in reading tasks. The second step focused on practicing specific strategies related to the monitoring strategy of "revision".

As metacognition is not directly observable in students (Sperling et al., 2002), it is argued that self-report and think-aloud methods that ask respondents to describe their use of particular strategies, rely too heavily on verbal ability (Whitebread et al., 2009) and as the students were not sufficiently competent to express themselves truly in writing, a multiple choice questionnaire was provided. Therefore, in the fourth phase of data gathering, measurement of metacognition awareness of the experimental and control groups of students was done to see whether experimental participants proved their superiority in metacognitive awareness to the control ones. The questionnaire applied for this study was a careful combination of two questionnaires to measure metacognitive awareness of revising strategies while and after reading tasks: one devised by Schmitt (1990) and the other provided by Doty, Cameron, and Barton (2003); directions for scoring the students responses which indicated awareness of metacognitive strategies of revising were also provided. Finally, at the end of first semester, to distinguish the differences between students' strategic reading skills, the two groups sat for the post-instruction assessment of reading tasks.

In the next phase of the study, which coincided with the beginning of the second semester that the students were participating in this study, the two groups were assessed through a pre-instruction exam to manifest their initial state for the new treatment of the second semester. The experimental group began to learn about rhetorical patterns of the authentic passages of their book, "Inside Reading 3", by OUP, 2009. The experimental students were instructed to identify rhetorical organizations through their associate discourse markers (signal words); a comprehensive pamphlet was provided to focus the students' attention toward numerous discourse markers of each of five expository text types of listing, problem-solution, comparison/contrast, temporal sequence, and cause-effect.

In the second semester, students were passing the course of Reading 3, which is actually the last reading course that Iranian EFL students pass during their B.A. program at college. This phase continued for 14 weeks and the experimental participants received 20 training sessions related to rhetorical structures including text features and discourse markers. In equal time intervals, the five fore-mentioned rhetorical structures were introduced, analyzed, instantiated through authentic reading passages, practiced, and reinforced by related metacognitive strategies. As it has been noted by Sharp (2002, p. 113) that texts used should be accurate representations of the rhetorical patterns, the selection of the reading passages in this phase was meticulously done from "Inside Reading 3", published by Oxford University Press, 2009.

Finally, at the end of the second semester, the experimental group was ready to take the second post-instruction reading test. This test was designed to check the same reading tasks pursued in pre-instruction test, however, the passages were different and logically more advanced. The same test was conducted for the two groups of control and experimental. The aim of this test was firstly to see whether there was significance difference between the performances of the two groups regarding the especial treatment of this research; the second aim was to see whether there was any difference between the results of these two subsequent treatments.

D. Data Analysis

Firstly, descriptive statistics were calculated for the pre-instruction assessments to determine whether the participants of both groups had the same starting points in reading skills. Secondly, the data obtained from post-instruction assessments were analyzed qualitatively and quantitatively using descriptive statistical procedures including independent samples t-test to examine whether significant differences exist between the two groups of learners

regarding their final metacognitive and rhetorical awareness resulting from the training sessions held throughout the two semesters of instruction.

IV. RESULTS

A. Pre-instruction Assessment

For a more fine-grained analysis of individual learner's behavior patterns and to make it possible to rule out any pre-existing differences among participants and groups, the session of pre-test was conducted. According to the results presented in table 1, the pre-test scores of the subjects in the experimental and control groups indicated that there was not a statistically or practically significant difference in their mean scores. This trait established an identical basis for the two groups.

TABLE 1
DESCRIPTIVE STATISTICS OF PRE-INSTRUCTION ASSESSMENT

Groups	Mean	N	Std. Deviation
Control	19.57	35	3.36
Experimental	19.14	35	3.57

B. Measurement of Metacognition Awareness of Text Mining and Revising

Due to the 20 training sessions that the experimental students received on metacognitive strategies of text-mining and revising, these students depicted their superiority in metacognitive awareness. Following table (Table 2) compares how significantly experimental participants' metacognitive awareness superseded control ones':

TABLE 2
DESCRIPTIVE STATISTICS AND T-TEST RESULTS OF METACOGNITIVE AWARENESS OF READING TASKS
*MEAN IS SIGNIFICANT AT 0.05 LEVEL (P<0.05)

Groups	Std. Deviation	Mean	Std. Error Mean	Sig. (2-tailed)	t
Control	3.57	15.11	.604	.002	-3.250
Experimental	3.55	17.88	.600	.002	-3.250

C. Post-instruction Assessments: First Semester

As it was noted in the "materials" section above, the procedure of this study entailed two series of training sessions and hence two post-instruction assessments; the first one was taken at the end of first semester to check the influence of metacognitive awareness in such intermediate students. Table 3 demonstrates learners' reading abilities influenced by metacognitive awareness of revising strategies:

TABLE 3
DESCRIPTIVE STATISTICS AND T-TEST RESULTS OF POST-INSTRUCTION ASSESSMENT OF READING TASKS
*MEAN IS SIGNIFICANT AT 0.05 LEVEL (P<0.05)

Groups	Std. Deviation	Mean	Std. Error Mean	Sig. (2-tailed)	t
Control	4.55	18.00	.769	.044	-2.05
Experimental	4.75	20.28	.803	.044	-2.05

With the benefits of the training sessions, the performance of experimental group was satisfactory. Statistically, table 3 indicates that there was a significant difference in the final output of the two groups ($p < 0.05$) due to the effect of the training sessions which benefited the performance of experimental group.

D. Second Semester: Post-instruction Assessment

At the end of the second semester, there was the second post-instruction assessment to evince the possible effects of 20 sessions of instruction on rhetorical patterns and the pertinent discourse markers on students' strategic reading tasks. Table 4 demonstrates learners' reading abilities influenced by the awareness inspired through these training sessions. Statistically, table 4 indicates that there was a significant difference in the final output of the two groups ($p < 0.05$).

TABLE 4
DESCRIPTIVE STATISTICS AND T-TEST RESULTS OF POST-INSTRUCTION ASSESSMENT OF READING TASKS

Groups	Std. Deviation	Mean	Std. Error Mean	Sig. (2-tailed)	t
Control	3.93	19.34	.664	.019	-2.39
Experimental	4.05	21.62	.686	.019	-2.39

To check the developmental trends of the study, the pre-/post-tests scores of the two groups were compared successively. Figure 1 and figure 2 illustrates that through the two semesters, the performance of experimental group improved noticeably, compared with that of the control group.

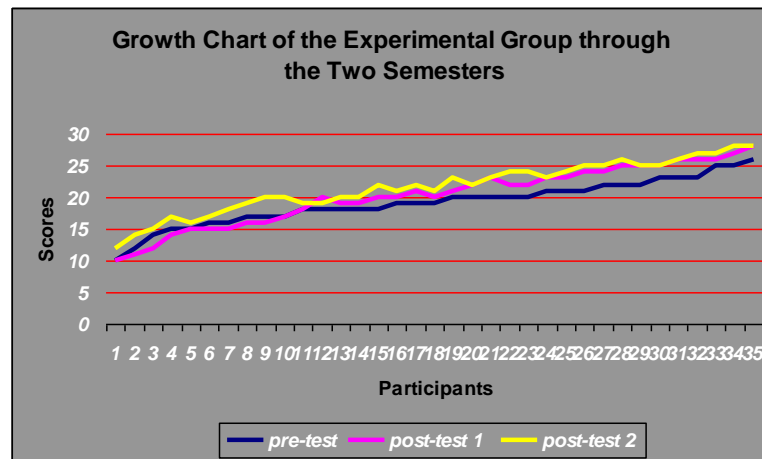


Figure 1 A comparison of pre-test and post-tests of experimental subjects subsequent to training sessions of the metacognitive strategies of revising (post-test 1) and rhetorical patterns and discourse markers (post-test 2)

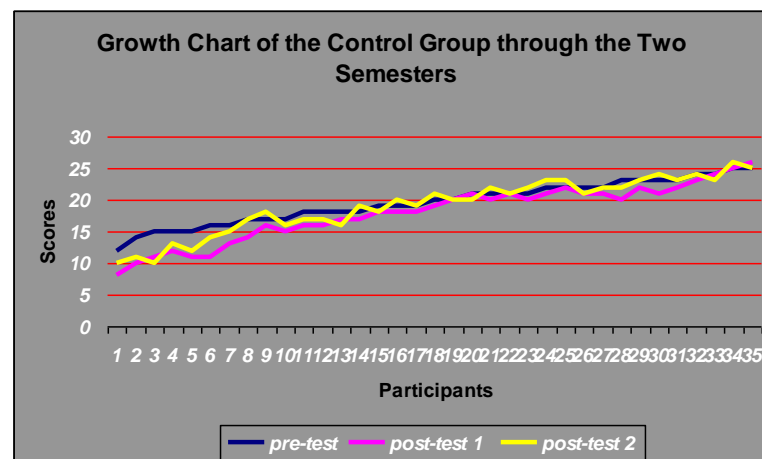


Figure 2 A comparison of pre-test and post-tests of control subjects, 1st semester post-test (post-test 1) and 2nd semester post-test (post-test 2)

V. DISCUSSION

The first line of instructional trainings in this study follows from instruction in reading metacognitive awareness and revising strategies. Many research studies have focused on finding the role of metacognitive awareness in students' learning outcome and achievement. There is extensive evidence that learners' metacognition can directly affect the process and the outcome of their learning (Palmer & Goetz, 1988; Carrell et al., 1989; Purpura, 1997, 1998; Boekaerts, Pintrich, & Zeidner, 2000; Zimmerman & Schunk, 2001; Mokhtari & Reichard, 2002; Block and Pressley, 2002; Bolitho et al., 2003; Eilam & Aharon, 2003).

The quantitative analysis of the *first* post-instruction assessment (Table 3), which assessed the influence of metacognitive awareness on reading skills, demonstrated that there was a meaningful difference between the learning outcome of experimental group over the control group; however, the qualitative analysis (Figure 1) of how the experimental participants performed reveals that metacognitive awareness in intermediate students does not necessarily lead to the application of metacognitive strategies of revision and hence the improvement of learning outcome for all the participants.

It can be inferred that minute differences in proficiency levels played a great role; in accordance with what Schraw and Moshman (1995) found, upper-intermediate students benefited improvements in their ability to select appropriate monitoring strategies to allocate resources but it seems that lower-intermediate ones have difficulty monitoring and revising their thinking during task performance; in Oxford's (1994) terms, students' strategies usage increases when they are in upper classes. Further reasons for lower-intermediate students' poor comprehension compared to the upper-intermediate ones can be attributable to their limited vocabulary range and the fact that they were not motivated enough to employ self-regulatory revising strategy, which is considered essential for cognitive information processing (Zimmerman & Schunk, 2001).

Moreover, the researchers believe that these students' weakness in use of monitoring and evaluation (=revising) strategies could be partly attributed to educational context in Iran where students have very restricted opportunities for functional practice of strategies especially in large heterogeneous classes. Zhang (2001) points out another possible

drawback; he asserts that the explicit knowledge of reading metacognitive strategies may not be sufficient condition for the acquisition of reading skills for less-proficient students since planning and revising appear to be late-developing skills or in Kuhn's term (2000) very gradual.

Another rationalization may come through Halliday's (1975) classification of language learning into a matrix of "learning language", "learning about learning", and "learning through language". Learning language is the process of acquiring a language as a communicative tool. Learning about language regards language itself as the object of study. Learning through language is to gain and construct knowledge through the medium of language. According to the results of post-instruction assessment of metacognitive awareness, lower-intermediate students were not proficient enough to "learn language through language", to convert their awareness and their consciousness-raising activities into strategic reading processes and learning output, however, it seems that the upper-intermediate students had sufficiently mastered "zones of proximal development" (Vygotsky, 1978) and acquired English language up to some level that the consciousness-raising activities appeared meaningful and communicative so they could experience a superiority of their reading tasks compared to their initial performances.

The second line of instructional trainings in this study encompassed 20 sessions of instruction on expository rhetorical patterns and their associate discourse markers. The qualitative results of the post-instruction assessment confirmed that the treatment brought about a meaningful difference between the experimental participants and control ones. This result was of course not surprising as several researchers have found that awareness of text structures is highly related to reading comprehension (Taylor, 1982; Englert & Hiebert, 1984; Berkowitz, 1986; Armbruster, Anderson & Ostertag, 1987; Pearson & Fielding, 1991; Block & Pressley, 2002). The main purpose of this treatment was to provide lower-intermediate students, who could not benefit the first treatment of this study, a reliable technique to depend on for an effective reading which is critical in EFL contexts (Carrell, 2006).

Once students began to learn how text information was organized in consistent ways, they began to recognize various discourse signals as contributing to a small set of recurring patterns. Grabe (2002) noted that, owing to explicit attention to rhetorical patterns, these signals no longer were seen as individual and arbitrary cues (that can seem very confusing to students). Rather, they could be seen as working together to help convey the larger text structure. Students were able to connect information in ways that assisted their overall comprehension of texts.

The qualitative results of this study (Figure 2) satisfactorily demonstrated that the lower-intermediate students as well as the upper-intermediate ones developed their reading skills through their awareness of rhetorical organizations and their discourse markers. The success of this treatment can be attributed to different factors. First of all, according to the schema theory, Carrell (2006) states that three issues are important in an effective reading comprehension: readers' prior linguistic knowledge (linguistic schemata), levels of proficiency, and knowledge of rhetorical structure of the text (formal schemata). In this study, the interaction of these three issues was taken into account so that there was an integration of bottom-up and top-down processing of the textual information. Experimental students tried to understand passages through their instruction on how to make inferences and draw conclusions about the varied textual patterns and features of expository reading texts in combination with their linguistic and lexicon knowledge and finally responded by providing evidence from text to support their understanding.

Secondly, as Perego and Boyle (2000) found, text structure knowledge enhanced comprehension by helping readers to anticipate and predict the direction of a plot or argument, thereby facilitating attention to the larger meaning of the text. As readers interact with the text to construct meaning, their comprehension is facilitated when they organize their thinking in a manner similar to that used by the author. Concurrently, Grabe (2002) maintains that rhetorical patterns and discourse markers have functional purposes and these purposes are recognized by good readers. Moreover, these discourse mechanisms extend to the level of genre and larger frames of discourse that organize textual information for the reader. There are well recognized conventions and systems that lead a reader to preferred interpretations, assuming a reader is genuinely interested in understanding what the writer had intended.

Thirdly, there is a rich literature that claims readers who adopt the strategy of identifying the author's organization structure will be able to recall more information than students who did not (Meyer *et al.*, 1980; McGee, 1982). Koda (2005) also believes that EFL and ESL reading teachers should provide their students a preview about the text and the topic rather than merely asking the students reading the texts so that students can be able to use macro-structures to organize their recall and build a coherent model of the text.

VI. CONCLUSION AND INSTRUCTIONAL IMPLICATIONS

The results of this study demonstrated that there was a clear difference between how intermediate students developed their reading skills through two different approaches of (1) metacognitive training of revising strategies and (2) explicit knowledge of rhetorical patterns and mining discourse markers. Empirical results indicated that Iranian lower-intermediate students could not benefit from metacognitive training as they were unable to turn what they learnt theoretically into actual practices of revising techniques to monitor and improve their reading processes. Possible causes were discussed but as Kuhn (2000) claims such skills are very gradual. This fact highlights that metacognitive knowledge should be incorporated in learners' training syllabuses even prior to university program to make their learning more efficient even at schools. In this regard, adequate attention should be paid to *what* reading strategies should be taught and *when* instruction should occur.

To provide less-proficient a reliable way to improve their poor comprehension of reading texts, the second treatment of this study was provided: mining discourse markers and rhetorical patterns which were found to be advantageous. As found by Grabe (2002, p. 14), information about text organizations provided ways to maintain more complex sets of information and make accurate comparisons and syntheses across related sources of information on a theme. This sort of complexity in language classrooms was also motivating because students were able to carry out more complex assignments successfully. Students knew that they were learning real information about the real world, something worth investing their time and energy into. And having more motivated students from these successes was really at the heart of language learning and reading instruction.

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