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of Cognitive Strategies Training on Reading Comprehension of Male and female Iranian Students

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چکیده

امروزه، چگونگی خواندن و درک مطلب متون زبان خارجی برای دانشجویان ایرانی اهمیت فراوانی دارد و آموزش این مهارت به صورت های گوناگونی انجام می شود. گروه بسیار زیادی از مدرسان زبان برای آموزش این مهارت هنوز از روش های سنتی استفاده می کنند و از روش های جدید آموزش این مهارت که بر راهبردهای شناختی استوارند آگاهی ندارند. از سوی دیگر، آن ها از تفاوت قابلیت های ادراکی و شناختی موجود بین دانشجویان پسر و دختر بی اطلاع هستند و در آموزش و ارزش یابی و تهیه ی مواد درسی مربوط به خواندن و درک مطلب با توجه به تفاوت های نام برده، فرصت های مناسب و برابر در اختیار دانشجویان پسر و دختر قرار نمی دهند.

هدف اصلی این مقاله، تحقیق در مورد چگونگی آموزش متون درک مطلب زبان انگلیسی به دانشجویان ایرانی و مشخص کردن نقش جنسیت در آموختن این مهارت و ارائه ی روش های جدید مبتنی بر راهبردهای شناختی است که سه مرحله دارد:

۱. بررسی ارتباط کاربرد روش های سنتی خواندن متون برای درک مفاهیم با جنسیت دانشجویان ایرانی رشته ی زبان انگلیسی.
۲. بررسی ارتباط کاربرد راهبردهای شناختی خواندن و درک مفاهیم متون با جنسیت دانشجویان ایرانی رشته ی زبان انگلیسی.
۳. بررسی ارتباط استفاده از کاربرد راهبردهای شناختی خواندن و درک مفاهیم متون با جنسیت دانشجویان ایرانی، در سه سطح مقدماتی، میانه و پیشرفته ی رشته ی زبان انگلیسی.

به منظور دست یابی به جواب های منطقی برای سه سؤال فوق، بعد از ساختن فرضیه ها و طرح های مناسب تحقیقاتی، انتخاب دانشجویان

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than other types of questions. Another reason for the effectiveness of this approach might be students' efforts to peruse and pose these questions in far greater depth and with greater care. One more possible reason might be the effect of pair group activity which makes recall and answering easier to the learners. Therefore, it can be suggested that teachers enhance their students' learning via such type of questions.

Since these types of questions can be useful in testing, the researchers believe that teachers should continuously expand such questions type in their classroom contexts in different levels and for different sexes. Students under teachers' supervision certainly get better results. In sum, regarding teaching reading comprehension; teachers can help students to be more successful if they take charge of their understanding by posing questions. In other words, this reading strategy should form an essential part of reading comprehension courses and materials.

The findings of this research can be beneficial to language teachers in order to adapt effective methods in teaching reading comprehension. It can also be beneficial to material developers and

course designers in determining the better needed techniques to achieve the objectives.

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As the above results indicate, t -observed is much smaller than the t -critical at the $p < 0.05$ level of significance. Accordingly, it can be concluded that the difference between the two groups before treatment was not meaningful and both groups were nearly homogeneous.

Five weeks later, after experiencing different treatments, both groups were given a similar post-test. As Table 2 represents, the calculated mean and the standard deviation for control group were 44.28 and 12.22 respectively. For the control group, the corresponding values were 69.72 and 13.75. The t_{observed} was 6.9.

Table 2: t-test for Both Groups' performance on the post-test

Stems	Mean	SD	N	df	t obs.	t crit.
G 1	44.28	12.22	25	24	-6.9	1.71
G 2	69.72	13.75	25	24		
Total			50	48		

$P > 0.05$

As the t -observed (6.9) exceeded t -critical (1.71) at 0.05 level of probability with 48 degree of freedom, the null hypothesis is rejected.

The main purpose of the current study was the analysis of the difference between testing the effect of the contribution of author-generated questions and student-generated questions approaches on enhancing Iranian students' level of reading comprehension.

Comparing the two mean scores using t -test, the null hypothesis was rejected. The two groups scored differently on the posttest, and the difference was statistically significant. Accordingly student-generated questions proved

to be more effective and more successful in exerting desirable effects on promoting students' reading comprehension.

Although the two groups were not significantly different at the outset of the study; they behaved differently on the final test with regard to reading comprehension. Therefore, it seems justifiable to conclude that student-generated questions have served the intended purpose.

As it could be seen, the average of the total marks of the students taking part in student-generated questions approach was much higher than those participating in author-generated questions approach. In other words, standard deviation and mean represent that students participating in student-generated questions approach as the first group performed better than those who participated in author-generated questions approach as the latter group.

Conclusion and Implications

The present study focused on two types of approaches which can be useful and effective in boosting Iranian students' comprehension level: passages followed by student-generated questions and passages followed by author-generated questions. It was found that student-generated questions passages would reinforce and improve the learners' comprehension level more effectively than those of author-generated ones.

Dealing with the first type of questions, students are actively participating in making questions; therefore, it might be easier and more comfortable for them to find answers for the questions. It is also clear that when students come across familiar questions and use their schema to answer the questions which are in fact self-made questions they can find answers more clearly better

English Textbook, they were divided into two homogeneous groups: 25 subjects as the experimental group and 25 subjects as the control group. The students were all male, having an average age of 19, ranging from 18 to 20 years old. They were studying their second term 1383-4 (2005) of the school year. They were all majoring in mathematics. The subjects had passed the same courses and were taught by the same English teacher.

Instrument

Forty passages were selected for each group from which four passages were taught in each class session. The content of the passages was the same for both groups. In the first class passages were followed by author-generated questions in the multiple-choice format. They worked on the passages individually and were supposed to choose the most appropriate answer from among the choices given.

For the second class, during ten sessions of class work the same forty passages were given to the students without any questions. Students were asked to read the passages and generate some questions based on the contents of the texts. Students were supposed to answer the questions which were posed by them.

Procedures

After the selection of the subjects, an achievement pretest based on English Book One and Two of pre-university was constructed. It consisted of 50 items: 15 structure, 21 vocabulary, and 14 reading comprehension items. The test was designed to report the subjects' difference in their entry level and for determining the homogeneity of the groups.

Both groups were under the instruction of the

same teacher, in the same school, for two sessions a week during the same instructional year. The teacher gave the passages followed by author-generated questions to the first group and the second group received passages with no comprehension questions. Students were expected to generate questions.

To check the effectiveness of each approach, after ten sessions of working on these two approaches, a post-test was administered for both groups in multiple-choice format. It consisted of 12 structure, 12 vocabulary, and 36 reading comprehension items.

Having the data collected, the researchers processed the data using the statistical package for social sciences (SPSS/ PC). To compare the results and to measure the differences, the statistical procedure of the t-test was used to determine the differences between the groups. Since there were two groups in the study, the independent t-test was used to test the hypothesis.

Results

Throughout the study two t-tests were administered. According to Hatch and Farhady (1981) if the t-observed exceeds the t-critical, our hypothesis is rejected.

Table 1: t-test for Both Groups' performance on the proficiency pretest

Groups	Mean	SD	N	df	t obs.	t crit.
Group 1	54.92	23.941	25	24	.124	1.71
Group 2	54.08	23.930	25	24		
Total			50	48		

P>0.05

other hand, student-generated questions are questions which are posed by students based on the contents they read. With the aim of improving their comprehension they are also supposed to answer these generated questions. Student-generated questions strategy is a simple but productive way to support reader engagement with the text. According to Poway Unified School District (PUSD, 2005), while reading chunks of text, students write down questions they have about what they read and what will happen next. This helps students clarify understanding, question the author's intent, etc. Through this strategy, they focus on the text to construct meaning.

Student-generated questions lead to deeper levels of text-processing (Anderson, 1979 cited in Tavakoli Behrooz, 1992:73). These types of questions are known as think-type questions after reading passages for better capturing the information (McBride, & Davey, 1986). They are techniques that can boost comprehension (King, 1992). These types of questions can help the reader to check comprehension and keep track of his/her reading (Fan, 1995), and will facilitate comprehension, and foster recall (Brisk & Harington, 2000:62).

According to Joseph, Jack, Andrew, and Juliet (2003), teachers can improve learners' reading comprehension by training them to generate questions, especially generic Wh- (e.g. What, Where, When) questions. Based on the above discussions we can conclude that, these types of questions are highly suggested to be used by teachers as means of improving reading comprehension level of learners.

Purpose of the Study

Viewing the past and current textbooks the researchers believe that it has long been expected

that reading passages followed by questions are better understood than other types of reading texts. But in this research as a new approach it is suggested that passages followed by student-generated questions are more effective in improving learners' reading comprehension. Though researchers have done a lot on the former, they have not studied the latter comparatively. As a result, this study via hypothesis testing attempts to check the effect of author-generated questions and student-generated questions approaches in enhancing the level of reading comprehension.

To find the effectiveness of either approach on promoting Iranian pre-university students' level of reading comprehension, this study intended to find an answer to the following question:

Is there any significant difference between the students' level of comprehension of passages followed by author-generated questions and passages followed by student-generated questions?

To conduct an unbiased study of the problem, the following null hypothesis was proposed.

As far as the promotion of reading comprehension level of students is concerned, there is no difference between passages followed by author-generated questions and passages followed by student-generated questions.

Methods

Subjects

To investigate the effect of the above-mentioned approaches on promoting students' reading comprehension level, 50 students were selected randomly from among the students of Allame Taba-Tabaei pre-university center in the city of Darrehshar in Ilam province. Based on their performance on an achievement pretest examination, designed based on pre-university

A growing numbers of educators now emphasize the importance of student-generated questions in reading for understanding and the number of investigations looking for ways to stimulate students to generate questions is growing (Commeyars, 1995; Rosenshine *et al*, 1996; Maskill & Pedrosa de Jesus, 1997; Watts *et al*, 1997; Marbach-Ad & Sokolove, 2000). There is also strong evidence showing that if good conditions are created then students are willing to generate or ask questions (Pedrosa de Jesus & Maskill, 1993; Maskill & Pedrosa de Jesus, 1997). In general, learners will generate questions where they have high level of self-confidence and self-esteem within the learning contexts (Watts *et al*, 1997).

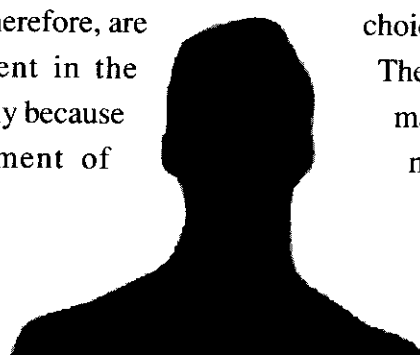
understanding and retention of what a student encounters. Secondly, such questions can enhance classroom learning and can be highly effective in increasing student interest, enthusiasm and engagement. Thirdly, learners' questions can indicate their understanding. Fourthly, question generation fosters discussion and debate.

Asking students to generate questions is a strategy for engaging the learners in a continual process of determining the value, relevance and practical application of new materials. When learners generate questions about materials and class discussions, they are participating in an important process of relating their prior knowledge and experiences to new information, which can lead to better comprehension. Learners accustomed to self-generated questions develop awareness of their own level of understanding (King, 1992).

Andre and Anderson, (1979) and Cohen, (1983) point out that students learn more effectively when they generate their own questions, summarize and exert choice in the lesson than when they do not. Student-generated questions are a way for teachers to assess students' comprehension during or after activities or an entire unit of study. It also provides opportunities for reinforcement of what has been learned and leads students to higher levels of thinking. "Students reflect upon their learning and consider what they know, what they thought they knew, what they want to know more about, and what they still want to learn" (Chuck, 1995). He asserts that student-generated questions are those questions raised or generated by learners. In general student-generated questions, therefore, are seen as an important element in the teaching/learning process, firstly because they can lead to improvement of

Enger (1997) states that teacher-generated questions have been shown to affect the cognitive level of student thought processes. Test questions can identify the cognitive level that students are capable of operating on. Similarly, the product of those test questions the students have answered can also be analyzed to determine the cognitive level at which the students have answered(p.10).

Author-generated questions refer to the comprehension questions which follow reading passages. They may be in multiple-choice, open-ended or any other format. They are provided by the author or the material developers and students have no role in their construction. On the



مطلب و اثرات آن بر دیگر مهارت‌های یادگیری، اعمال این روش توسط معلمان به منظور پیشرفت و ارتقای درک مطلب دانش‌آموزان به حد زیادی توصیه می‌شود تا با به‌کارگیری آن در تمام سطوح، گام مؤثرتری در بهبود درک مطلب دانش‌آموزان برداشته شود. به عبارت دیگر، نتایج کلی حاصل از تحقیق در ارتباط با درک مطلب بیانگر آن است که این راهبرد می‌تواند به دانش‌آموزان کمک کند که با استخراج سؤالات از متون و جواب دادن به آن‌ها، موفق‌تر عمل کنند و این روش در دوره‌های درسی خواندن، باید توسط معلمان اعمال شود.

کلیدواژه‌ها: متون همراه با سؤالات دانش‌آموز ساخته، متون همراه با سؤالات مؤلف ساخته، درک مطلب، متون قرائتی.

Abstract

This study deals with testing the effect of the contribution of author-generated questions and student-generated questions on enhancing Iranian students' level of reading comprehension. Based on a proficiency pre-test, two homogeneous classes from a public pre-university center were chosen as the subjects. To verify the effectiveness of either approach on promoting students' reading comprehension one group worked on passages followed by author-generated questions and the other group worked on passages followed by student-generated questions. After ten sessions of class work, subjects participated in a post-test in multiple-choice format with more reading comprehension questions. From data analysis via a t-test calculation, it became clear that the second group outperformed the first one. Therefore, it was cogently concluded that student-generated questions approach was more effective than author-generated questions approach.

Key Words: author-generated questions, student-generated questions, reading comprehension, teaching reading.

Introduction

It is not exaggeration to say that reading is the most important skill among the four well-known ones through which learners acquire most of their knowledge. Scholars, in different fields of study relevant to language learning and teaching, are investigating the significance of the reading skill in acquiring a second language. A good proof for this claim can be numerous studies done by researchers like Bartlett (1932), Johnson (1982), Anderson, and Pearson (1984), Wallace (1992). Reading is of paramount importance especially in the foreign language context. In Iran, it is relatively viewed as the aim of language teaching and language learning programs in secondary and tertiary levels of education. Thus, English teachers are expected to get familiar with efficient

techniques that can boost the level of learners' reading comprehension.

Reading comprehension and understanding are traditionally connected. Although reading can be done for different objectives, it is generally believed that the main purpose of reading is comprehension of the ideas presented in the texts. That is why Katims (1997) believes that without comprehension, reading would be empty and meaningless; (see also Royer, 2003). Perhaps for the same reason teachers use questions to check comprehension and assist students in understanding the messages of a text. Similarly Hassany (1995) also notes that the main objective of teaching English in Iran is reading comprehension.