

Teaching reading strategies to ESP readers

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Abstract

The purpose of the present study was to investigate the impact of teaching reading strategies on reading comprehension improvement of ESP readers. It also intended to find out whether there is any interaction between readers' proficiency level and the effectiveness of reading strategy training. A sample of 60 ESP students was chosen and divided into two groups. The control group was taught through traditional methods of reading instruction and the experimental group was taught through reading strategies. The findings of the study indicated that reading strategy training was more effective in improving reading ability of ESP readers than traditional methods of reading instruction. Another major finding was that reading strategy training does not affect the reading ability of learners with different proficiency levels in the same way and that less able readers might benefit more from training.

Keywords: learning strategies; reading strategies; English for Specific Purposes (ESP); strategic reading; successful readers

Teaching reading strategies to ESP readers

1. Introduction

Many researchers believe that reading is by far the most important of all four skills in a second language, particularly in English as a second or foreign language (e.g. Carrell, Devine, & Eskey, 1988, Richards & Renandya, 2002). Certainly, if we consider the study of English as a foreign language around the world, the situation in which most English learners find themselves, reading is the main reason why students learn the language. Quite simply, without solid reading proficiency, second language readers cannot compete with their English-speaking counterparts. Aebersold and Field (1997) also emphasize that the acquisition of reading skills in a second or foreign language is a priority for millions of learners around the world, and there is a growing demand for both effective reading courses as well as high-quality second language reading materials.

Since reading skill is of utmost importance, its teaching is not a simple task. According to Celce-Murcia (2001), teaching reading skills to non-native speakers of English involves unique problems and challenges of all conceivable levels of instruction. Students clearly need help in learning to read in a foreign language. Unassisted, many students learn strategies that impede their obtaining meaning efficiently from printed text (Hosenfield, 1984).

The current explosion of research in second language reading has begun to focus on reader's strategies. Reading strategies are of interest for what they reveal about the way readers manage their interactions with written text; and how these strategies are related to text comprehension (Carrell, 1998). Research in second language reading suggests that learners use a variety of strategies to assist them with the acquisition, storage, and retrieval of information.

Some researchers like Carrell (1998) make a distinction between skills and strategies. She uses the term skill because she wants to focus on the action that readers actively select and control to achieve desired goals or objectives. She sees herself aligning with Paris, Wasik, and Turner (1996):

Skills refer to information-processing techniques that are automatic, whether at the level of recognizing grapheme-phoneme correspondence or summarizing a story. Skills are applied to a text unconsciously for many reasons including, expertise, and reported practice, compliance with directions, lick, and naïve use. In contrast strategies are actions more deliberately selected to achieve particular goals. Strategies are more efficient and developmentally advanced when they become generated and applied automatically as skills. Thus strategies are skills under consideration (cited in Carrell, 1998, p.4).

Reading strategies indicate how readers achieve a task, what textual cues they attend to, how they make sense of what they read, and what they do when they don't understand (Block, 1986). Strategies are deliberate, cognitive steps that learners can take to assist in acquiring, storage, and retrieving new information and thus can be accessed for a conscious report (Anderson, 1991). Reading strategies range from simple fix-up strategies such as simply reading difficult segments and guessing the meaning of an unknown word from context, to more comprehensive strategies such as summarizing and relating what is being read to the reader's background knowledge (Janzen, 2001).

According to Oxford and Crookall (1989), strategies are learning techniques, behaviors, problem-solving or study skills which make learning more effective and efficient. In the context of second language reading, a distinction can be made between strategies that make learning more effective, versus strategies that improve comprehension. The former are generally referred to as learning strategies in the second language literature. Comprehension or reading strategies on the other hand, indicate how readers conceive of a task, how they make

sense of what they read, and what they do when they don't understand.

The teaching of English for specific purposes has generally been seen as a separate activity within English language teaching (ELT), and ESP research as an identifiable component of applied linguistic research. A key distinguishing feature of ESP is its openness to insights of other disciplines. The main concern of ESP have always been with needs analysis, text analysis, and preparing learners to communicate effectively in the tasks prescribed by their study or work situation.

Since the 1960s, ESP has become a vital and innovative activity within the teaching of English as a second or foreign language movement (Howatt, 1984, cited in Evans & St John, 1998). ESP is part of a more general movement of teaching language for specific purposes (LSP). LSP has focused on the teaching languages such as French and German for specific purposes, as well as English (Dudley-Evans & St John, 1998). ESP is an enterprise which involves education, training and practice, and drawing upon three major realms of knowledge: language, pedagogy and the students'/ participants' specialist areas of interest.

While lots of studies on reading strategy instruction have been done in EFL and ESL contexts, few studies have been conducted on the impact of strategy training on ESP readers. In Iran, Shirazi (1999) conducted a research in order to determine the impact of pre-reading strategy instruction on the reading comprehension of Iranian ESP readers. The results of his study indicated that efficient comprehension requires effective activating of the learner's background knowledge.

Considering the significance of teaching reading strategies to ESP readers, the present study is an attempt to find whether strategy training has a significant effect on the reading ability of ESP reader. Moreover, the relationship between the ability level of readers and effectiveness of strategy instruction is investigated. The following research questions are going to be answered by this study.

- Does strategy training affect the reading ability of Iranian ESP readers?
- Is there any relationship between the proficiency level of ESP readers and the effectiveness of reading strategy instruction?

2. Review of literature

In an early study on reading strategies, Hosenfield (1977) used a think aloud procedure to identify relations between certain types of reading strategies and successful or unsuccessful second language reading. The successful readers, for example, kept the meaning of the passage in mind while reading, read it in broad phrases, skipped inconsequential or less important words, and had a positive self-concept as a reader. The unsuccessful reader, on the other hand, lost the meaning of the sentences when decoded, read in short phrases, pondered over inconsequential words, seldom skipped words as unimportant, and had a negative self-concept.

In their study involving good and poor readers, Hopkins and Mackay (1997) found that good readers often have more ready access to a variety of purposeful reading strategies to undertake reading tasks successfully and that they use them with greater frequency and flexibility. They are active in making inferences and using dictionaries to resolve uncertainty about the meanings of words or larger units of discourse.

In another empirical study, Song (1998) studied 68 first year tertiary students majoring in Archeology, Esthetics, and religion at a university in Korea to investigate the impact of strategy training on the reading ability of EFL university students. He also aimed to obtain answers for the differentiated effect of the strategy training on students' reading proficiency level and types of reading comprehension questions. The findings of the study showed that the reading strategy training does improve EFL college students reading proficiency. Furthermore, the study demonstrated that less able readers might benefit from the training more than more able readers. Finally the study revealed that the students' ability of grasping main ideas and of making inferences from the given passages was significantly enhanced.

The findings of Song's (1998) study is confirmed by the results of Salataci and Akeyl's (2002) study who investigated the reading strategies of Turkish EFL students in Turkish and English possible effects of reading instruction on reading in Turkish and English. Salataci and Akeyl tried to find out whether strategy instruction in EFL reading affect EFL reading strategies and reading comprehension in English. Moreover, they investigated if strategy training in EFL reading affects reading strategies in Turkish. Their participants were 8 Turkish students enrolled in a pre-intermediate level class of a one-year intensive English course offered at a Turkish-medium technical university. The data in their study come from think-aloud protocols, observation, a background questionnaire, a semi-structured interview and the reading component of PET (the Preliminary English Test). The results indicated that strategy instruction had a positive effect on both Turkish and English reading strategies and reading comprehension in English. This finding is in accordance with Falk and Wehby's (2007) study findings who investigated the impact of explicit reading instruction on students' with emotional/behavioral disorders. Their findings suggest that direct instruction offers a promising approach to increasing the reading achievement – and potentially the behavioral outcomes- of students with emotional behavioral disorders.

Reading strategy instruction has also received some attention in Iran (Barati, 1992, Sedighi, 1998, Shirazi, 1999). In his study on the effect of reading strategies on recall and retention of Iranian EFL learners, Barati (1992) considered two reading strategies: underlining and note-taking. Through analyzing the subjects' performance on factual and conceptual questions, he concluded that in both experiments note-takers could significantly outperform underliners on factual questions; but with reference to conceptual questions there was no significant difference between the two strategies.

In a another study, Sedighi (1998) studied the effects of training in the use of reading strategies on the improvement of reading comprehension of 110 students at Allameh Tabatabaei University and Islamic Azad University, Iran. His study consisted of three phases. In the first phase, he conducted a descriptive research to investigate the strategies reading teachers use to teach reading comprehension in EFL classes in Iran. In this phase, he found that teachers in Iran still use traditional method of language teaching without enough strategic content. In the second phase, he conducted a survey study to describe the strategies good readers and poor readers use in reading their EFL reading assignments. Finally in the third phase which was the experimental one, he investigated the effects of training in the use of reading strategies on the improvement of reading comprehension. It was revealed that reading strategy instruction enhances comprehension ability of the students. It was also shown that low ability comprehenders benefited from strategy instruction more than middle and high ability comprehenders.

While lots of studies on reading strategy instruction have been done in EFL and ESL context, few studies have been conducted on the impact of strategy training on ESP readers. In Iran, Shirazi (1999) conducted a research in order to determine the impact of pre-reading strategy instruction on the reading comprehension of Iranian ESP readers. The results of his study indicated that efficient comprehension requires effective activating of the learner's background knowledge. In other words, the readers' schemata should be tapped on prior to the reading. He concluded that if the pre-reading activities are employed efficiently, learning how to read is quite easy.

There is little evidence to show that whether ESP students can benefit from reading strategy training as much as EFL learners. Therefore, the findings of the present experimental study can shed more light on the issue of teaching reading strategies and it will set the ground for a comparison between the effectiveness of reading strategy instruction versus traditional teaching of reading comprehension. Moreover, this study has got the purpose of discovering students from which proficiency level all more likely to benefit most from strategy training. While Shirazi (1999) only focused on the instruction of a few pre-reading strategies, the present study intends to investigate the effect of all pre-reading, during-reading, and post- reading strategy instruction on reading ability of ESP readers.

3. Method

3.1 Participants

A sample of 60 ESP readers who were in the first year of their education studying geography at Hakim Sabzevari University, Iran was selected. They were two classes of sophomore university students who were taking a general English course. The sample consisted of two classes of students who were randomly assigned to control (N=30) and experimental groups (N=30). We had both male and female participants. There were 25 male participants and 35 female participants in the study. They were of about the same age ranging from 18 to 24. The participants were classified as low, intermediate and advanced levels of reading comprehension based on the pre-test.

3.2 Procedures

After grouping participants into control and experimental group, a Nelson Test was administered to them in order to homogenize them. The scores of both groups on reading comprehension section of TOEFL test were taken as the pre-test. The experimental group received reading strategy instruction on skimming, scanning, summarizing and guessing meaning from context. In each session of instruction, the teacher introduced a new reading strategy and devoted enough time to its teaching and practice. The control group did not receive any specific training on reading strategies and were taught through the traditional methods of language teaching such as translating, reading aloud, and many others. After 14 weeks of reading strategy instruction, the same reading comprehension section of TOEFL test was given to them as the post-test. Finally independent-samples T-test and ANOVA were employed to analyse the relevant data.

3.3 Data analysis

Independent sample two-tailed t-test was run to compare the reading comprehension ability of control and experimental group on the post-test. A one-way Analysis of Variance (ANOVA) was also used to compare the gain score of learners from different proficiency groups. A post-hoc Scheffe's test was also administered to determine the relationship between proficiency level and effectiveness of reading strategy training.

4. Results

In this study the researcher intended to study the impact of strategy training on reading comprehension improvement of ESP readers. The researcher, also, intended to find out whether there was any significant difference between readers' proficiency level and the effectiveness of teaching reading strategies to them. In order to compare the performance of control and experimental groups on the post-test, their mean scores were subjected to an independent sample t-test (See table 1).

Table 1

Independent sample t-test for control and experimental groups

	Levene's Test for Equality of Variances		T-test for Equality of Means			
	<i>F</i>	Sig	<i>t</i>	<i>df</i>	Sig (2-tailed)	Mean Difference
Equal Variances assumed	1.43	.23	-2.38	58	0.20	-2.66

As it can be inferred from the table, the obtained p value for 58 degrees of freedom is 0.02 which is significant ($T(58) = -2.38, P < 0.05$). It means that reading strategy instruction was more effective in improving

reading comprehension ability of ESP readers than traditional methods of reading instruction. So, we can say that reading strategy instruction had greater effect on the improvement of reading ability of readers than traditional method of reading instruction.

In order to find out whether reading strategy training affect the reading ability of learners from different proficiency levels significantly differently, one-way ANOVA was run (Table 2).

Table 2

ANOVA results for different proficiency levels

	Sum of square	<i>df</i>	Mean Square	<i>F</i>	Sig.
Between Groups	0.15	2	15.07	5.42	.01
Within Groups	77.84	28	2.78		
Total	108	30			

Note. $p < 0.05$ (two-tailed)

The obtained p value for 2 and 28 degrees of freedom is 0.01 which is significant at 0.05 level of significance ($F(2, 28) = 5.42, P < 0.05$). It is indicated that the mean scores of different proficiency groups on post-test are meaningfully different. Therefore, it is concluded that there is a significant relationship between the proficiency level of ESP readers and the effectiveness of reading strategy instruction. In order to investigate where the difference between groups lies, a follow-up Scheffe's test was employed. It was found that the mean of the low-proficiency group improved more than other groups. It means that the low proficiency group benefited most from reading strategy training.

5. Discussion

The purpose of this study was to investigate the impact of strategy training on the reading ability of ESP readers. It also aimed to obtain awareness for the differential effect of the strategy training on students' reading proficiency level. The findings of this study provided empirical evidence that explicit instruction in comprehension strategies can improve reading comprehension ability. This finding supports the results of Carrell, Pharis, and Liberto's (1989) study who found that learners may improve their reading skills through training strategies evidenced by successful learners.

Furthermore, the present study demonstrated that less able readers might benefit more from the training than more able readers. The amount of gain made by the low reading proficiency group was found to be much greater than that made by the intermediate and high proficiency groups. This finding confirms the result of Song's (1998) study on 68 first year tertiary students majoring in Archeology, Esthetics, and religion in Korea who found that less proficient readers benefited from the training in reading strategies more than more proficient readers.

The fact that less proficient ESP readers benefited more from the reading strategy training may be attributed to this point that they are often unaware of the effective reading strategies and employ ineffective strategies in dealing with reading tasks they encounter. That's why receiving instruction on the efficient use of these strategies significantly improves their reading proficiency and helps them use strategies that result in successful reading habits. On the other hands, more proficient readers may already be familiar with reading strategies or even if they are not aware of them they employ these strategies unconsciously or they make use of other techniques that make up for their incompetency in reading strategy use.

While language proficiency factors are certainly important in determining ESP reading comprehension, reading strategies also play a significant role. The results of the study suggested that foreign language reading pedagogy, especially for adult students in academic settings, would benefit from the inclusion of explicit and direct strategy training. This finding aligns with Carroll's (1989) view who argued that teaching readers how to use strategies should be a prime consideration in the reading classroom and suggested that more training studies

are needed to investigate effective ways of teaching strategy use.

Moreover, reading strategy training makes learners independent learners of language which is considered to be the ultimate goal of language learning. Learning how to use strategies effectively, the readers do not require looking up to their teacher to provide them with the correct answer or define the new vocabulary for them all the time. This means that ESP learners become autonomous learners of language who can handle their reading requirements and get the meaning out of the printed material in the best possible way.

Furthermore, as it is shown by many studies (see e.g. Alderson, 2000; Pang, 2008), receiving training in reading strategies in a foreign language positively affect learners reading ability in their L1 too because many readers apply inefficient reading techniques even in their mother tongue and are not capable of reading effectively which leads to their poor performance in their educational milieu. Therefore, it seems that it is the time for our reading teachers to review and revise their teaching methods and incorporate reading strategy instruction in their day to day lesson plans.

6. Conclusion

The findings of the present study on the effectiveness of reading strategy training to ESP readers suggest that reading strategy training does improve ESP students' reading proficiency. It is also shown that reading strategy training does not affect the reading ability of learners from different proficiency levels in the same way and that less able readers might benefit more from the training than more able readers. The amount of gains made by the low proficiency group was found to be much greater than that made by high proficiency reading group. While teaching ESP readers how to use a given strategy, they must also be taught how to determine if they are successful in their use of that strategy. It must be emphasized that low proficient readers need guided practice if strategy training is to be successful.

6.1 Implications

The first implication of the findings of the study for language teachers is that training in reading strategies makes readers active learners, so the outcome of the present research will be an appropriate guide for the language teacher to *teach* the reading strategies while they have more information about them. The second implication is that ESP readers, particularly less capable ESP readers, should be given intensive and direct strategy training for a long period. Teaching of strategies without direct explanation and explicit teacher modeling for a short period would not have a long-term effect on students and effectively help them as strategic readers. Readers with lower level language proficiency might benefit from reading strategy instruction where they learn to monitor their comprehension and use their background knowledge with the help of a teacher who models the steps of the instructional process, and where they discuss their strategies while reading the text. The reading teacher in this kind of instruction assumes the role of a guide, a model, or stimulator rather than the provider of the correct answers to comprehension questions.

The findings of the study have some implications for language learners, too. Language learners have to recognize the significance of developing effective reading strategies. They must consider the need to improve all their reading strategies through constant practice and extensive reading. Spending a few hours on rehearsing reading strategies will not lead to successful reading habits. Students must have a long-term program for learning and practicing their reading skills on a regular basis.

Material developers may also find the findings of this study useful. They are recommended to include some exercises to raise students' awareness about when, where, and how to use reading strategies. This can obviously result in the development of "strategic" readers. Although a few English reading course books for ESP readers used in Iran have strategy training parts, the majority of them are relatively old course books which lack a part for strategy instruction. Therefore, it is urgent that Iranian material developers review and revise their textbooks and pay more attention to the vital issue of reading strategy instruction.

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