

# The Relationship between English Reading Strategies and Comprehension

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## Abstract

Reading provides the visual input that serves as the basis for language acquisition and enables learners to interact in written and spoken communication. Also, reading is a receptive behavior in knowledge acquisition. The purpose of this study was to discover learners' effective English reading strategies as an essential ability for their learning process so as to increase their English reading achievement for the certificate of the TOEIC (the Test of English for International Communication) class. Other purposes were to investigate which reading strategies adult learners lack and which strategies can be used in the instruction to compensate for the deficiencies in order for learners to attain better English reading comprehension.

The participants were 35 adult learners from two non-traditional-aged classes, including fourteen students from Pingtung Labor College and twenty-one from Meiho University's College of Continuing Education. The experiment lasted for one semester. Both classes used the same TOEIC textbook under the guidance of the same instructor and followed the same curriculum. At the end of the semester, thirty-one learners were given the two questionnaires. One questionnaire was developed to investigate learners' application of different strategies in reading comprehension. The other questionnaire was designed to evaluate from learners' perspectives if indeed the reading strategies did facilitate learners' reading comprehension and to collect learners' responses and suggestions about the training.

The findings showed that the most often-used category among learners was compensation strategies; with the next being, memory strategies. The least often-used strategy was meta-cognitive. Female learners reported using both cognitive and memory strategies more often than males did, but no overall differences were found between the genders. The English reading strategies most commonly used didn't positively improve the learners' English reading comprehension. After all, learners would not use the same strategy for reading a newspaper as they would for reading a textbook. Finally, the study concludes that reading instruction requires learners to do a great deal of reading practice over an extended period of time and to have much exposure to reading in order to improve their English reading ability.

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### Introduction

The two demands in this new global economy are life-long learning and on the job training. In this technology age, information is distributed more quickly than ever before. It is estimated that 70% of the information on the Internet is in English and, therefore, English is the language of the Internet (Hamel, 2007). Clearly, good reading skills and comprehension are essential in today's interdependent and global economy. Employees must adapt to this new information society or they are at risk to fall farther behind in job skills which are required for today's economy. Acquiring new skills is important in Taiwan's competitive economy.

English is the global language as well as a global communication tool. Reading provides the visual input that serves as the basis for language acquisition and enables learners to interact in written and spoken communication. Moreover, reading is a receptive behavior in knowledge acquisition (Goodman, 1967). Well-used reading strategies are vital for successful lifelong learning. O'Mally and Chamot defined strategies in their study in 1990 as the thoughts and behaviors that learners use to enable them comprehend, learn, or retain information. Therefore, employees with good English proficiency are given important preference or is a fundamental requirement at workplaces, which makes obtaining certificates of English proficiency such as an international certificate of TOEIC (the Test of English for International Communication), increasingly popular in Taiwan nowadays. From this point on, the abbreviation TOEIC will be used in this paper for the Test of English for International Communication. Thus, building learners' effective English reading strategies will be an essential ability for their learning process to increase their learning achievement for the off duty TOEIC class and to help them meet the increasing demands of global competition.

Most language learning classes are filled with multi-level ESL students and the classes are huge. New learning strategies are more focused on interaction and quality with smaller class sizes. Many language institutions like to have all students in a class at the same level, however, that possibility is harder and harder to reach. This is one of the most difficult problems facing instructors or language learning, especially in the EFL field. Warschauer and Healey (1998) have stated that there are many advantages of using a computer in a classroom setting: (1) flexible learning without the limitation of time, ability level and space; (2) multimodal practice with feedback; (3) pair and small-group work on projects; either collaboratively or competitively; (4) the fun factor; (5) variety in the resources available and learning styles used; (6)

exploratory learning with large amounts of language data; and (7) real-life skill-building in computer use. All seven advantages are especially true in language learning classrooms, including EFL classrooms. For example, the computer can be used by those students who need help in areas that are troublesome for them. Different programs can be used, depending on the area of need. This can be done outside of class and offers the students the convenience to study on their own time. Computerized classrooms and software are easy to operate and use. The class structure can be aligned according to level because the student can choose his/her own ability level and work their way up to a higher level. Also, a computer is useful for students who didn't quite understand the lesson or even missed the class.

It is difficult for instructors to teach adult learners on the job because of time and energy; therefore, Information Technology (IT) learning materials become increasingly important. The learners, in turn, experience a more authentic, practical, meaningful and interactive learning environment. In other words, instructors should move from a more traditional approach of teaching by lecture and control to a more technological approach by using computers and interactive materials, which can offer learners a way to practice and employ self-regulated and personally relevant communication skills in a wide range of linguistic strategies, functions, and meanings for whole language development and acquisition (Chun, 1994; Ortenga, 1997; Schachter, 1999; Warschauer & Meskill, 2000).

Therefore, in the TOEIC class, learners are also introduced to websites that instruct them on how to use English learning software about various English proficiency tests. It is an E learning platform called E-Touch, in which there is a section "Reading Practice". The platform can help the students to compensate their reading learning. In the reading section, a variety of reading strategies are provided to them to cope with different reading tasks. In addition, it also provides the students with different levels of reading tests for their reading practice. Naturally, it will help them, somehow, to improve their reading comprehension and solve some of their reading problems outside of the classroom.

The purpose of this study was to build learners' effective English reading strategies as an essential ability for their learning process so as to increase their English reading achievement for the off duty TOEIC class and to investigate what reading strategies adult learners lack and what strategies can be used in the instruction to compensate for the deficiencies in order to attain better English reading comprehension. There are six research questions in this study:

1. What are the adult learners' preferred English reading strategies that they are able to use?
2. What effective English reading strategies do adult learners lack?

3. Are there any significant differences between males and females on their use of English reading strategies?
4. What training would be appropriate to help adult learners to apply more effective reading strategies so as to attain better reading comprehension?
5. Does the training of English reading strategies facilitate English reading comprehension?
6. Do the often-used English reading strategies improve the learners' reading comprehension?

If instructors can discover which learning strategies readers often use or neglect to use, and what the difficulties or obstacles readers encounter while they are reading, the instructor can appropriately adapt teaching techniques to compensate their learning strategies and to resolve their reading obstacles under a desired reading instruction. The instruction will then help learners to improve their reading comprehension and solve some of their reading problems outside of the classroom.

#### *The Limitations of the Study*

Four limitations were discussed in this study. First, the number of the participants was small because of the off duty training and the area of small population, which made the findings less representative. Second, the researcher was on the base of the TOEIC training to explore how English reading strategies helped learners to obtain better reading comprehension so as to enhance the learners to attain high reading scores, therefore, Backwash effect was not discussed in the study. Third, due to time and manpower, the questionnaire just focused on the training of English reading strategies to improve learners' reading comprehension through the learners' perspectives, which was less objective and valid. Fourth, the number of the male learners was much smaller than the females because the females had a much stronger motivation and interest toward the TOEIC class.

### **Literature Review**

Reading is a directive and effective way to acquire knowledge. Anderson (1999) emphasized that reading is an essential skill for ESL/EFL learners to master. Effective study strategies are the key to successful achievement of learning (Ley & Young, 1998). Many researchers and instructors have tried hard to find good ways to help learners read effectively in English, but there are many factors that influence L2 reading proficiency. Efficient learners use reading strategies that are different than inefficient learners (Block, 1986; Singhal, 2001). Many researchers have shown the influence of reading strategies on L2 learners in Taiwan (Hung, 2001; Kuo, 2002; Lin,

2005; Pan, 2005; Hsu, 2006).

Strategies can be defined as “deliberate action that learners select and control to achieve goals or objectives” (Winograd and Hare, 1988, p123). However, O’Mally and Chamot (1990) defined strategies as the thoughts and behaviors that learners use to enable them to comprehend, learn, or retain information. Besides, language learning strategy (LLS) is actions taken by the learner to facilitate acquisition, retention, retrieval and performance (Rigney, 1978), which makes the learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations (Oxford, 1990). Goodman (1967) highlighted that there is an essential interaction between language and thought in reading. The writer encodes thought as language, and the reader decodes language as thought.

*Reading Strategies and Their Classifications*

The reading strategies taught in this study included: previewing, predicting, skimming and scanning, contextual guessing, reading for meaning, distinguishing fact and opinion, finding main ideas, asking oneself questions, utilizing background knowledge, recognizing text structure, making a story outline, making a timeline, making inferences, reading for specific information, taking notes in a chart, summarizing, using 6 Wh-question, and making graphic organizers.

Different classifications of learning strategies can be found in many previous studies. For example, O’Malley & Chamot (1990) adopted a three-category learning strategy: cognitive, meta-cognitive, and social affective categories. They also describe subcategories under each of these main categories. Oxford’s (1990) was another learning strategy that has been popularly used in many studies. He divided learning strategies in 19 sets, six categories and two groups, as shown in Table 1 ( p.17).

Table 1

*Oxford’s Language Learning Strategies List*

(A) Direct strategies	(B) Indirect Strategies
1) Memory Creating mental linkage Applying images and sounds Reviewing well Employing action	1) Meta-cognitive strategies Centering your learning Arranging and planning your learning Evaluating your learning
2) Cognitive Practicing Receiving and sending message Analyzing and reasoning Creating structure for input and	2) Affective strategies Lowering your anxiety Encouraging yourself Taking your emotional temperature 3) Social strategies

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output	Asking questions
3) Compensation	Cooperating with others

Table 1 (Continued)

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(A) Direct strategies	(B) Indirect Strategies
A guessing intelligently	Empathizing with others
Overcoming limitation in speaking and writing	

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It is important to be aware that the above strategies can be used to facilitate learning and comprehension. Learners would not use the same strategy for reading a newspaper as they would use for reading a textbook. In essence, learners can use certain reading strategies for a certain specific reading task.

*Reading Strategies of Effective and Ineffective Learners*

A good deal of research has been conducted on EFL reading strategies which focus on the awareness of using effective reading strategies and training unskilled readers to use these effective strategies successfully. Most EFL researchers, such as Casanave (1988), Nuttall (1989), and Smith (1973) regarded reading as a process in which readers actively participate in constructing meaningful understanding of a text, and they must also actively make use of certain strategies to make sense of the text. Pressley (1998) pointed out that learners do not learn strategies quickly, only after extensive practice over a long extensive period of time, which includes struggling to adapt strategies to a wide range of reading tasks. In a second-language study, Hosenfeld (1977) used a think-aloud procedure to identify relations between certain categories of reading strategies and successful or unsuccessful second language reading. For instance, successful readers keep the meaning of the passage in mind while reading, read in broad phrases, skip inconsequential words or less important words, and have a positive self-concept as a reader. The unsuccessful readers, on the other hand, lose the meaning of the sentences when decoding, read in short phrases, think over inconsequential long words, seldom skip words as unimportant, and have a negative self-concept.

Anderson (1991) examined differences in strategy use. His study seemed to indicate that strategic reading was not only a matter of knowing which strategies to use, but in addition, the readers had to know how to apply strategies successfully. Vandergrift (1999) proclaimed that the learning strategies used by successful and less successful learners were different, and that the former made better use of meta-cognitive strategies, which included planning before learning, monitoring the learning process, and self-evaluating learning after a task was completed. Therefore, to be effective learners (strategic readers), they should know not only what strategies



to use, but also when, why, and how to use them successfully. Such knowledge is called meta-cognition or meta-cognitive awareness of reading strategies. Generally speaking, effective reading strategies facilitate reading comprehension. Vandergrift (1999) stated that effective learners will be skilled readers.

#### *The Studies of Reading Instruction*

Reading instruction requires learners to do a lot of reading practice over an extended period of time and to have a lot of exposure to reading (Nist & Simpson 2000, p. 654). Thus, learners can apply effective strategies in a variety of reading tasks and contexts. Also, learners cannot be expected to improve their English reading abilities in a short period of time. Instructors should apply an approach which Grabe & Stoller (2002) recommended for strategy instruction in their reading training. The strategy instruction includes introducing strategy usages, modeling them overall through lecturing, raising learner awareness of different strategies, encouraging them to use strategies, guiding them in reflecting on strategy uses, discussing difficult text meaning through the use of strategies and providing them with more opportunities to apply effective strategies in a variety of reading materials. Therefore, the most important awareness for instructors is failing to teach learners strategies, whether they are effective or not, and failing to show them how to use effective strategies to obtain comprehension from reading. (Aebersold & Fielding, 1997; Garner, 1987; Pressley & Afflerbach, 1995).

#### *Reading Strategies of Male and Female Learners*

Over the past decade, studies have shown that female language learners use more language learning strategies than males (Oxford, Nyikos and Ehrman, 1988; Nyikos, 1990; Oxford, 1993; Mohamed Amin, 2000; Lee, 2003). However, some findings have revealed that males use more strategies than females (Wharton, 2000; Zamri, 2004), and some have even revealed that there are no significant differences between males and females on their use of language learning strategies (Chang, 1990; Chou, 2002). Therefore, the relation between language learners' sexes and their use of language learning strategies is still a controversial issue. Also, male and female learners may have different preferences for strategy use. More research is needed in this area to validate the current findings from the previous studies.

#### *TOEIC Course Design for Learners at Southern Taiwan Institutions*

This course designed by Meiho Institute of Technology (MIT) and Pingtung Labor College provides non-traditional learners with TOEIC-related lessons and techniques. The test of TOEIC is appropriate for multi-level English proficiency

examinees. Also, there are two textbooks: one is used for improving learners' vocabulary and the other one is used for developing their listening and reading abilities in preparation for the TOEIC. There were a total of thirty-five learners for the one-semester course which started in September, 2007 and lasted until the end of January, 2008. The semester had a total of thirty-six instruction hours. The class met once a week for two hours. Also, the course only focused on the areas of listening and reading. The study adopted two approaches: one emphasized the training for effective reading strategies; the other aimed at the analysis of questionnaires for learners' effective English reading strategies and reading ability perceived by the learners' self-evaluation. There were a total of thirty one valid participants' questionnaires.

#### *General Description of the TOEIC*

TOEIC is a test which tests the listening, reading, speaking and writing skills of a non-native English speaker. The test focuses, primarily, on business and the workplace. TOEIC is produced by the Educational Testing Service (ETS) of Princeton, New Jersey, USA. The TOEIC was first given in Japan in 1979 and in Korea in 1982. Many of the topics discussed on the TOEIC are everyday English situations. The scores are separated into two parts, with two sections in each part. The first part is tested listening and reading with each section maxing out at 495 points. The writing and speaking part is the new aspect of the test and each section has a total of 100 points. The reading section, which this paper deals with, tests the ability of a student to recognize a text-type and answer questions, either contextual or detailed (TOEIC, 2008).

#### *The Reasons for Taking the TOEIC*

Many business and government organizations require their employees to take the TOEIC for the purposes of being hired, considered for promotions, or being allowed to travel overseas (Rogers, 2006). Bagnell et al. (2007) revealed a TOEIC test is a way to prove one's English proficiency. Every year, at least 4.5 million people take the TOEIC test, as reported by ETS (ETS, 2004). According to the ETS website, in 2010, the TOEIC test was administered more than six million times worldwide every year (ETS, 2011), and over the last 30 years, TOEIC certificates have assisted thousands of businesses, educational institutions and governments worldwide to recruit and promote the most qualified employees (ETS, 2009; Li & Haggard, 2011).

## **Methodology**

### *Participants*



Thirty-five adult learners, whose ages ranged from 21 to 53, participated in the experiment. There were 9 males and 26 females. They were from two off duty classes, including fourteen from Pingtung Labor College and twenty-one from Meiho College of Continuing Education. The experiment lasted for one semester. Both classes used the same TOEIC textbook under the guidance of the same instructor and followed the same curriculum.

### *Instruments*

First, only thirty-one learners were given the two questionnaires at the end of the semester. The questionnaires were designed by Dr. Lin-mei Pan, who specialized in reading area with reading strategies for EFL students, for her dissertation (Pan, 2005). One questionnaire, Checklist of Effective English Reading Strategies, was developed to investigate learners' application of different strategies in reading comprehension, which used a 4-point Likert scale ranking "strongly disagree (1 point)", "disagree (2 points)", "agree (3 points)" and "strongly agree (4 points)". The questionnaire was divided into four categories: compensation strategies, meta-cognitive strategies, memory strategies, and cognitive strategies instead of Oxford's six categories (Pan, 2005). The other questionnaire, the Self-evaluation of Effective English Reading Training, was designed to evaluate from learners' perspectives if indeed the reading strategies did facilitate learners' reading comprehension. This questionnaire used a 5-point Likert scale ranking "strongly disagree (1 point)", "disagree (2 points)", "no opinion (3 points)", "agree (4 points)" and "strongly agree (5 points)". In addition, there was one open-ended question about learners' comments toward the training, which aimed to collect their responses and suggestions to the instruction.

The data analysis can give instructors a valuable indicator on how to focus reading instruction to compensate their weaknesses in reading so that they can reach the ultimate learning achievement as soon as possible for their reading class next semester. Statistic analysis methods include descriptive statistics, t-test and Pearson product-moment correlation.

## **Results and Discussion**

The internal consistency reliability of each factor of the questionnaire was analyzed first. The Cronbach alpha values were 0.77, 0.77, 0.73 and 0.69 for the compensation, meta-cognitive, memory and cognitive strategy categories, respectively. The overall Cronbach alpha reliability was 0.91. Since all the Cronbach alpha values were larger than, or close to, 0.70, the questionnaire showed good internal consistency in evaluating student's reading strategy use.

Table 2 shows the mean values of the use of the four various strategy categories. The mean values of the overall strategy use were 2.85, 2.77, 2.72, and 2.40, for the compensation, memory, cognitive, and meta-cognitive strategies, respectively. According to Oxford (1990), strategies with a 4-point Likert scale that has a mean value more than 2.8 were regarded as strategies with high frequent usage and that has a mean value lower than 1.9 were regarded as strategies with low frequent usage. Thus, on the use of the overall English reading strategies, the learners responded moderately high on the frequently used reading strategies to assist their reading comprehension. The most often-used strategies were the compensation strategies. The second often-used were the memory strategies. However, the meta-cognitive strategies were quite different from the other three strategy categories.

Table 2.

*Descriptive Statistics for the Use of Reading Strategy Categories*

Rank	Strategy Category	Number of Items	Number of participants	Mean
1	Compensation	6	31	2.85
2	Memory	3	31	2.77
3	Cognitive	2	31	2.72
4	Meta-cognitive	5	31	2.40
	Overall	16	31	2.69

Through data analysis, Table 3 indicates that the learners used compensation strategies most often such as figuring out the meaning of a word from the context, scanning for searching specific information and distinguishing facts and opinions in a text, respectively. The second often-used strategy was the memory strategy-- reading actively by writing notes; and the third often-used strategy was the compensation strategy-- making inferences based on evidences in a text. These findings answered the first research question of the study.

The least often-used category was meta-cognitive strategies such as using graphic organizers to help reading comprehension, making outlines after reading and making a timeline to see the order of events, respectively. This indication reflected that the learners did not effectively use enough of the meta-cognitive strategies as above-mentioned. The second least often-used strategy was the compensation strategy-- doing self-question about the text before, while, after reading; and the third least often-used strategy was the memory strategy-- taking notes while reading to help organize and remember important information. The findings, therefore, answered the second research question. All of these will be essential considerations in the reading strategy instruction to compensate for the deficiencies. The instructor may help train adult learners with these considerations to be able to apply more effective reading

strategies so as to attain better reading comprehension. Therefore, the above findings partly answered the fourth research question.

Table 3

*The Rank of Reading Strategy Use*

Strategy Item (total: 16 items)	Strategy Category	All Participants = 31	
		Mean	Rank
I figure out the meaning of a difficult word from the context.	Compensation	3.13	1
I scan while reading to look quickly for specific information	Compensation	3.00	2
I try to find main ideas of the text	Compensation	3.00	2
I write notes in the margin of my books to help myself read actively.	Memory	3.00	2
I make inferences based on evidences in a text.	Compensation	2.90	3
I preview the article or text to look over the whole reading before starting to read.	Memory	2.87	4
I try to paraphrase and put information or ideas into my own words while reading.	Meta-cognitive	2.84	5
I try to distinguish facts and opinions in a text.	Cognitive	2.77	6
.....			
I take notes while reading to help organize and remember important information.	Memory	2.45	10
I do self-question about the text before, while, after reading	Compensation	2.40	11
I make a timeline to see the order of events	Meta-cognitive	2.32	12
I make outlines after reading	Meta-cognitive	2.23	13
I use graphic organizers such as flow charts, spider maps, concept map and cluster diagram.	Meta-cognitive	2.13	14

There are many factors that can affect reading strategy use. In order to understand if gender played an important role in reading strategy in this study, further

analysis of the T-test was executed. The data in Table 4 indicates that males used compensation strategies and meta-cognitive strategies more often than females did. In light of overall strategy use, males used more strategies than females, which confirmed the studies of Wharton's (2000) & Zamri's (2004). However, there were no significant differences between male and female learners in terms of overall strategy use. The findings answered the third research question.

Table 4.

*T-test of Reading Strategy Use for Gender Differences*

Variable	Gender	# of Participants	Mean	SD	p
Compensation	Male	6	2.97	0.91	0.537
	Female	25	2.83	0.64	
Meta-cognitive	Male	6	2.60	1.39	0.451
	Female	25	2.36	0.69	
Memory	Male	6	2.72	0.79	0.829
	Female	25	2.79	0.39	
Cognitive	Male	6	2.56	0.65	0.613
	Female	25	2.76	0.30	
All Strategies	Male	6	2.76	3.59	0.707
	Female	25	2.67	1.78	

*Note.* # of Participants: the number of Participants      Standard Deviation: SD

The outcomes of data analysis on the self-evaluation from learners' perspectives for the reading training are listed in Table 5. There were increasing mean values in Table 5, which indicated that through the reading training, learners significantly felt their English reading abilities improved and that they had acquired some English reading strategies. From the learners' perspectives, the findings partly answered the fifth research question.

Table 5.

*Descriptive Statistics for the Questionnaire of Self-evaluation of Effective English Reading Training*

Item for 31 participants	Mean	SD
1. Before class training, my English reading ability is _____ Very Good, Good, Not Bad, Bad, Too Bad	2.65	0.661
2. After class training, my English reading ability is _____ Very Good, Good, Not Bad, Bad, Too Bad	3.26	0.575
3. After class training, my English reading ability has improved. Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	3.74	0.514

Table 5 (Continued)

Item for 31 participants	Mean	SD
4. After class training, I have acquired some English reading strategies. Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	3.81	0.402
5. After class training, English reading strategies are able to improve my English reading ability. Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree	4.03	0.482
6. What are my (learners) suggestions and comments about the reading training? (an open-ended question)		

On the description of item 1 in Table 5, 6.5% (2 learners) of the subjects agrees that their English reading ability was “too bad”, 25.8% (8) agrees that it was “bad”, 64.5% (20) was “not bad” and 3.3% (1) was “good”. No one agree that their English reading ability was “very good”. In general, most participants thought their English reading ability were not bad or bad. From the mean value of Item 2 deducted the mean value of Item 1 for the same participant, 35.5% (11) did not improve their English reading ability. However, 64.5% (20) thought that their English ability improved.

From the description of item 3 in Table 5, 71% (22 learners) agrees their English ability improved after the reading training. From item 4, 80.7% (25) agrees they acquired some reading strategies. From item 5, 90.3% (28) positively agrees that English reading strategies did indeed improve their reading ability. Thus, after the reading training, most participants had a positive, good perspective about the training. Also, they thought the training of English reading strategy facilitated English reading comprehension. The above findings partly answered the fifth research question.

As to the open-ended question in Table 5, seventeen subjects from the total of 31 offer their suggestions and comments. The researchers took special notice on 9 of the 11 subjects who thought their English reading ability had not improved after the training, although they agreed that reading strategies did improve their reading ability. Two subjects gave no suggestions or comments. Considering the following suggestions and comments which the learners offered will be a good indicator for the future instruction to be modified. The above findings partly answered the fourth research questions. The suggestions and comments were as follows:

Good comments: good enough and the increasing difficulty of articles

Valuable suggestions: read more; practice more, more tests; give handouts for lecturer explanations; more review; and little more difficult articles

The overall suggestions and comments from 17 subjects were as below:

Good comments: the training was good and helpful (offered by 6 subjects)

Valuable suggestions: choose more business and news articles; instruct learners with

more reading strategies; read more; practice more (offered by 6 subjects); more tests; give handouts for lecturer explanations; more review; and a little more difficult articles

Table 6

*The Distribution of Learners' TOEIC Scores*

L	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
R	390	210	145	225	290	185	245	360	290	125	220	180	150	220	120	120	155	145	315
S	42	58	35	35	51	42	54	29	52	40	35	41	52	34	54	31	32	40	48

Note. L: each learner of the test R: each reading score of the test

S: total points of reading strategies

The learners were encouraged to attend the TOEIC test. Nineteen participants took part in the test in the middle of November, 2007. The maximum score for the reading section in TOEIC is 495 points. In Table 6, the distribution of the learners' TOEIC scores shows that the score of each learner's TOEIC did not have a positive relation to the use frequency of one's reading strategies. The result showed that better reading comprehension was decided by successfully or effectively using reading strategies. The frequent (ineffective) use of English reading strategies didn't positively improve the learners' English reading comprehension. Also, the background knowledge of each learner influenced his/her reading comprehension. Therefore, the findings answered the sixth research question and complied with the description on the research that effective readers should know how to use certain reading strategies well (effectively) to successfully comprehend the article (Hosenfeld, 1977; Anderson, 1991; Vandergrift, 1999).

### Conclusions and Suggestions

The purpose of this study was to build learners' effective English reading strategies as an essential ability for their learning process so as to increase their English reading achievement for the off duty TOEIC class and to investigate what reading strategies adult learners lack and what strategies can be used in the instruction to compensate for the deficiencies in order to attain better English reading comprehension. According to the results, the conclusions are listed below.

First, the most often-used category among the learners was compensation strategies. The second often-used category was memory strategies. Females used both cognitive and memory strategies more often than males did; however, no significant differences were found between male and female learners in terms of the overall strategies' use. Meta-cognitive strategies, which were the least used, are the most important because they help the learners obtain better comprehension. Thus,



instructors should focus more on these strategies' training, particularly in using the strategies of identifying different text structure organizations.

Next, instructors can train the learners to practice more with the 6Wh-questions while they are reading, which helps them construct the meaning of the article more effectively. As to how to remember important information, instructors can train them to do note-taking while they are reading and using a concept map to get a mental picture of the information of the article, so that they can retain information longer. Due to the learners suggesting that the course needs to have more reading practice, some class time can be used to train them to use computerized language learning equipment and software effectively so that they can take more TOEIC tests and reading practice outside the classroom.

Through the analysis of reading strategies used by adult learners, instructors will know what effective English reading strategies adult learners lack. The instructors then can determine how to provide more effective and appropriate strategy instruction. Finally, the study suggests that the guidance of adequately applying reading strategies is essential in EFL reading instruction. This study also confirms that reading instruction requires learners to do a lot of reading practice over an extended period of time and to have a lot of exposure to reading so that the learners can apply effective strategies to a variety of reading tasks and contexts. (Pressley, 1998; Nist & Simpson 2000, p. 654). Also, learners can not be expected to improve their English reading abilities in a short period of time. In the study, the frequent (ineffective) use of English reading strategies did not positively improve the learners' English reading comprehension, which was compliance with other studies (Hosenfeld, 1977; Anderson, 1991; Vandergrift, 1999). As to the reading training, instructors should adopt the approach by Grabe & Stoller (2002) for strategy instruction, including introducing strategy uses, modeling them overall through lecturing, raising learner awareness of different strategies, encouraging them to use strategies, guiding them in reflecting on strategy uses, discussing difficult text meaning through the use of strategies and providing them more opportunities to apply effective strategies in a variety of reading materials. Learners would not use the same strategy for reading a newspaper as they would for reading a textbook. More research is needed in this area to establish how effective reading strategy usage may facilitate both teachers' reading instruction and learners' reading comprehension. A follow-up research with one TOEIC mock test as pre/post tests for the research instrument to compensate for the deficiency (The third limitation of the study) may be meaningful to be advanced, which will allow a more objective and valid view of learners' reading comprehension.

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## 英文閱讀策略與英文閱讀理解能力之關係

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### 摘要

閱讀是語言習得的基礎，提供視覺信息的獲得，並使學習者能夠用說或寫的形式來達到信息的傳達與溝通，閱讀也是知識習得的一個主要獲得方法。本研究之目的乃提高學員考「TOEIC 多益」國際職場英語溝通能力證照的高分，培養學員能有效的使用閱讀策略，以便提高他們上多益證照班的閱讀學習成效。藉著探討學員缺乏那些有效的英文閱讀策略及英文閱讀教師如何經由訓練來彌補，讓學員能適當地使用這些策略，以獲取好的英文閱讀理解能力。

本研究採取實驗教學法，以屏東勞工大學 14 位學員及美和進修學院 21 位學員，共 35 位在職學員為研究對象，主要研究工具是「英文閱讀策略使用之量表」及「學員自我認知的英文閱讀策略教學影響英文閱讀成效之問卷」。

問卷數據經統計分析獲得結論如下：

- 一、學員們最常使用的閱讀策略是「補賞閱讀策略」，例如：我會依據前後文之意思，來了解艱深難解的字。
- 二、學員們最不常使用的閱讀策略是「後設認知閱讀策略」，例如：我會使用圖解閱讀策略，如流程圖、概念圖及串連之圖表等。
- 三、女性比男性較多使用「認知閱讀策略」及「記憶閱讀策略」及男、女兩性對閱讀策略的使用沒有顯著得不同。
- 四、學員們使用閱讀策略愈多，不見得他們的閱讀理解能力就愈高。

本研究結論：英文閱讀訓練需要學員們持之以恆，多花時間、多閱讀、多練習，才會熟練地使用有效的閱讀策略（合適的閱讀策略，搭配合適的閱讀文體），才能達到有效地閱讀理解。畢竟，閱讀報紙及閱讀教課書，學員會使用不同的閱讀策略來達到其閱讀理解的目的。本研究建議：後續此閱讀教學研究，若使用一套「多益」模擬題做前後測，則更能客觀有效地得知學員們閱讀學習成效。

關鍵詞：英文閱讀策略、英文閱讀理解能力、學員

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