



Íkala, revista de lenguaje y cultura

ISSN: 0123-3432

revistaikala@udea.edu.co

Universidad de Antioquia

Colombia

Karbalaei, Alireza

Assessing Reading Strategy Training based on CALLA model in EFL and ESL Context

Íkala, revista de lenguaje y cultura, vol. 16, núm. 27, enero-abril, 2011, pp. 167-187

Universidad de Antioquia

Medellín, Colombia

Available in: <http://www.redalyc.org/articulo.oa?id=255019722006>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

# Assessing Reading Strategy Training based on CALLA model in EFL and ESL Context<sup>\*1</sup>

Alireza Karbalaee\*\*

Department of English, Islamic Azad University, Safashahr Branch, Safashahr, Iran

Reading strategies instruction is currently gaining much attention as an effective means of enhancing reading comprehension. In this research, we examined the effect of Underlining Strategy Intervention, based on the CALLA model in EFL and ESL contexts. A group of 189 college students were randomly selected from different universities in Iran and India. Based on a proficiency test, students were grouped into high, moderate, and low level. Then, the underlining strategy was taught during the treatment sessions. The results suggest that intervention or explicit instruction was effective in increasing the reading comprehension of both Iranian and Indian students although Indian ESL students were able to perform better in comparison to their Iranian EFL counterparts. There was no significant difference between proficiency level and students' performance in reading comprehension in EFL and ESL contexts. In addition, there was no significant difference between males and females in both contexts.

**Key words:** reading strategies, underlining strategy, reading strategy training, English as a Foreign Language (EFL), English as a Second Language (ESL)

En la actualidad, la enseñanza de estrategias de lectura genera significativa atención como un medio efectivo para mejorar la comprensión de lectura. El objetivo es examinar el efecto de la *intervención de la estrategia de subrayado*, basado en el modelo CALLA, en contextos EFL y ESL. Se seleccionaron al azar 189 estudiantes universitarios de diferentes universidades de Irán e India. Basados en un examen de competencias, se agrupó a los estudiantes en niveles alto, medio y bajo. Después se les enseñó la estrategia de subrayado durante sesiones de capacitación. Los resultados indican que la intervención o la

---

\* Recibido: 09/12/09 / Aceptado: 14/10/10.

1 I express my immense gratitude to my Research Supervisor, Prof. K.S. Rajyashree, for having opened the door of opportunity to conduct research under her guidance. She is the torchbearer in my march of research.

I, with all sincerity, record my sense of gratefulness to Dr. Umarani Pappuswamy for her helpful advice and comment on my paper and all EFL and ESL students and teachers for their contribution to data collection.

I started doing this research from the middle of January 2008 to the middle of April 2009 for Indian students and from the middle of June 2009 to the middle of September 2009 for Iranian counterparts. It is self-financed and it is a part of my doctoral thesis. Three universities in Iran and three universities in India were involved in this research.

instrucción explícita fue efectiva en el mejoramiento de la comprensión de lectura tanto de los estudiantes iraníes como indios, aunque los estudiantes indios de ESL obtuvieron un mejor resultado en comparación con la contraparte de estudiantes iraníes de EFL. No hubo diferencia significativa entre el nivel de competencia y el desempeño de los estudiantes en la comprensión de lectura en contextos EFL y ESL. Además, no hubo diferencia significativa entre hombres y mujeres en ambos contextos.

**Palabras clave:** estrategias de lectura, estrategia de subrayado, capacitación de estrategias de lectura, inglés como lengua extranjera (EFL), inglés como segunda lengua (ESL)

Actuellement, l'enseignement de stratégies de lecture génère attention significative comme moyen efficace pour améliorer la compréhension de lecture. L'objectif étant d'examiner l'effet de l'intervention de la Stratégie de Souligné basée sur le modèle CALLA dans des contextes EFL et ESL. 189 étudiants universitaires de différentes universités d'Iran et d'Inde ont été choisis au hasard. Basés sur un examen de compétences on a regroupé les étudiants dans des niveaux haut, moyen et bas. Après, on leur a appris la stratégie de souligné pendant des séances de formation. Les résultats ont montré que l'intervention ou l'instruction explicite a été efficace pour l'amélioration de la compréhension de lecture tant des étudiants iraniens comme des indiens, même si ceux-ci, d'ESL ont mieux réussi en comparaison avec la contrepartie des iraniens d'EFL. Il n'y a pas eu de différence significative entre le niveau de compréhension et la performance des étudiants dans l'épreuve de lecture dans des contextes EFL et ESL. Par ailleurs, il n'y a pas eu de différences significatives entre hommes et femmes dans les deux contextes.

**Mots clé:** stratégies de lecture, stratégies de souligné, formation dans de stratégies de lecture, anglais comme langue étranger (EFL), anglais comme seconde langue (ESL)

## 1. INTRODUCTION

Over the last 2 decades, most research on L1, L2, and foreign language (FL) reading has focused on the strategies readers employ in processing written input. According to Cohen, reading strategies are “those mental processes that readers consciously choose to use in accomplishing reading tasks” (1990: 83). Hudson (2007) regarded these strategies as a series of actions that a reader utilizes in order to construct meaning in the reading process. Hence, the analysis of using reading strategies indicates how readers conceive a task, what they do to gather meaning from texts, and what they do when comprehension breaks down (Block, 1986, 1992; Macaro, 2001; Macaro & Erler, 2008; Zhang, 2001). Furthermore, Mokhtari and Reichard believe that “increasing students’ awareness of their comprehension processes while reading is an important first step toward their becoming constructively responsive, strategic and thoughtful readers” (2002: 256).

On the other hand, when students are asked to read a text for comprehension, some cannot focus their attention on the text during reading and, unfortunately, many are not aware of how to read in order to meet the academic expectations. Regarding this fact, Clump, Bauer and Bradley (2004) found that only 27.46% of students read their reading assignments before class. Yip and Chung (2005) mention that study strategies and academic performance are closely interrelated, especially in the first year of university education, in which learning strategies training, including reading strategies, and supporting students should be part of university policy in order to help students adapt to a new environment (Lindblom-Ylänne, 2004; Simpson & Nist, 2000, 2002).

In addition, results of studies on successful versus less successful learners' strategies indicated that the frequency of language learning strategies used by successful language learners appeared to be higher than those employed by less successful language learners (x). However, the findings of the language learning strategy survey studies failed to meet many language educators' expectations. They highlighted the importance of teaching the language learning strategies used by successful learners to less successful learners. With respect to these conclusions, in the mid-eighties, researchers (e.g. Chamot & O'Malley, 1987) began to promote learning strategy training in language instruction. At the outset, not all the second language strategy training studies drew successful conclusions and some studies indicated mixed results (see Oxford, 1993). After the mid-eighties, with the development of language learning strategy studies, methods utilized for strategy training have become more organized and systematic than before (e.g. Chamot & Kupper, 1989; Chamot, 1998), paving the way for more strategy studies with positive results (e.g. Thompson & Rubin, 1996).

One of the crucial factors for reading a text successfully is the identification of key information. To become more aware of a text, readers use strategies like underlining and note-taking (Brown & Smiley, 1978; Pressley, 2002; Yüksel & Kosar, 2001). Most college or university readers use the underlining (or highlighting) strategy often even though they are not usually aware of how and when to use the strategy. The purpose of using the strategy is to

structure the text in way that helps the reader to focus (Derry, 1988-1989). In addition, as Blanchard and Mikkelsen (1987) state, students frequently use underlining while studying the texts because of its practicality, popularity, non-existent training requirement, and the need for reducing the text.

Like underlining, Subtopic signaling, a device authors use to help readers identify points in a text, such as headings, previews, and enumeration, has mixed results in reading research. Readers who are skillful at looking for signals or who have been instructed extensively on finding the main points to underline are the only ones who benefit from engaging in either process (Golding & Fowler, 1992; Wade & Adams, 1990). Readers' goals and teacher expectations also have a significant effect on readers' use of underlining and signaling strategies in comprehending a text (Brown & Day, 1983; Wiograd, 1984; Afflerbach, 1990; van Hout-Wolters, 1990).

Weinstein and Mayer (1986) called underlining a *complex rehearsal strategy*. This involves selecting important ideas and marking them for subsequent review. They state that students feel a sense of security while underlining because they believe they are selecting a text's most important ideas, monitoring their understanding while reading, and preparing the text for later review.

### **1.1 Variables affecting underlining strategy**

Students who scored higher on academic aptitude test tended to perform better on reading tests regardless of the study-reading strategy they were asked to use (Hakstain, 1971; Klare, Mabry & Gustafson, 1955; Stordahl & Christensen, 1956). For example, Marxen's (1996) study took students who were better than average readers and required them to use underlining in an experimental study. It was found that underlining tended to interfere with their existing study-reading strategies and reading performance was actually hindered.

In addition, student background knowledge seems to have a positive effect on underlining. Five studies chose to control for background knowledge by

using it as a covariate (Brady & Rickards, 1979; Fass & Schumacher, 1978). This technique served to factor out the consistent positive effect of background knowledge on comprehension (Anderson & Pearson, 1984) and consequently reduced the chances that students using underlining would show any increase in performance scores. Therefore, the weak performance found in these studies could be due to weak background knowledge rather than the limited effect of underlining.

Hartley, Bartlett, and Branthwaite (1980) draw three conclusions about the variables affecting underlining strategy: First, teaching the use of underlining to students who have a low level of reading ability is not appropriate. Students must first learn how to find main ideas before they learn how to underline them. Second, the relationship between reading ability and underlining is curvilinear. Good readers seem to have their own study-reading strategies that are effective and tend to be hindered by imposing the underlining strategy on them. On the other hand, underlining also gives false hope to poorer readers as they randomly underline ideas. Finally, underlining cannot overcome weak background knowledge or lack of strategies for engaging this kind of knowledge.

It is also important to take instructional variables into consideration. Teaching students to review what they have underlined before giving them a test markedly improves their performance, especially if the test happens to measure what they have underlined. Providing students with even a limited amount of instruction in how to underline important main ideas and the need to review those ideas is essential for enhanced performance. Finally, underlining is more effective if used as a strategy for marking where important ideas lie in the text and if those ideas are subsequently converted into a marginal note (Hartley et al., 1980).

## **1.2 Previous research on the effectiveness of underlining**

Di vesta and Gray (1973) report that underlining, as a learning scheme, can be understood as a coding function or external memory function for promoting cognitive processing of the instructional context. When underlining is regarded as a coding function, it is thought to be a process of search/

selection where the reader searches out information in the instructional materials that he believes to be important (Glynn, 1978). On the other hand, considering underlining strategy as an external memory device, it is only effective when the segment text is reviewed, and if the underlined part of the text at hand is not reviewed, it is not as effective as a memory device for understanding or reproducing the text content (Blanchard & Mikkelsen, 1987). In another study, Seki (1997) suggested that highlighting important concepts beforehand in self-study instructional materials by using prompts such as arrows, underlining or bold characters enhances understanding of the indicated parts on the part of the reader. However, as Johnson & Wen (1976) contend, prompts like underlining important parts of the instructional materials clearly increase understanding of content while underlining at non-target parts of the text impedes the understanding of content. Finally, selective attention must be paid to the instructional materials in the recording activity of doing underlining while judging which parts are important, and which are not, and thus this method is thought to be more effective for understanding content of instructional materials than the approach of emphasizing key concepts in the textbook beforehand as prompts and giving the information passively (Uosaki et al., 2003).

In addition, research has repeatedly shown that strategies such as highlighting, note-taking, and underlining help with the encoding process. Peterson (1992) concluded that students were more likely to answer a question correctly if they had highlighted the relevant word or phrase than if they had not. Also, Nist and Hoglebe (1987) proved that student generated underlining enables him/her to process information at a deeper level. Johnson and Von Hoff Johnson (1986) claimed that highlighting or underlining involves making an inference while reading. Inferences play an active role in reading information by allowing the reader to encode important, relevant information.

When taken as a whole, the existing body of literature on the effects of underlining does not reach a consensus even though underlining is perhaps the most widely used of all reading and study strategies, as observed by Anderson and Armbruster (1985). This points to the fact that it still needs to be investigated more extensively (Ahmad & Asraf, 2004). Several research-

chers found a significant relationship between underlining and the recall of information (Cashen & Leicht, 1970; Hartley, Bartlett & Branthwaite, 1980; Rickards & August, 1975; Vianty, 2007). Yet, there are several studies which failed to find any positive results with respect to the underlining strategy during reading. For example, regarding the effectiveness of underlining, Hartley et al. (1980) analyzed 41 studies that compared an underlining condition with a central condition and found that underlining is not more effective than other more passive methods, such as reading-only or repetitive reading. One of the main purposes of the present study is thus to investigate the applicability of this strategy in both Iranian EFL and Indian ESL context by focusing on three variables (background knowledge or proficiency level, gender, and the context in which learning is taking place) with respect to the effect of underlining on reading comprehension.

As far as English language learning and teaching exists in the above-mentioned contexts, English is taught as a foreign language in Iran and reading comprehension is the main objective in Iranian ELT contexts; however, most of the Iranian EFL learners show serious problems in reading and comprehending a foreign language. Regarding Indian students, this problem is not as challenging as that of Iranian context because they have more access to the English language outside of their classes. At the same time, most of the Indian students still had difficulties when taking the reading comprehension test. Unfortunately, all of the students in the study were neither well informed of reading strategies nor able to use them in a particular context. Taking this problem into account, the researcher focused his attention in one of the while-reading strategies, underlining strategy.

## 2. RESEARCH HYPOTHESES

Due to a lack of evidence with regard to underlining strategy training at the college level, this study limits itself to the effect of underlining intervention on the reading comprehension performance of undergraduate students in both the EFL and ESL context. The present study was designed to examine the following hypotheses:



H1: Underlining strategy training affects Iranian EFL and Indian ESL students' performance in reading comprehension significantly.

H2: There is a significant difference between Iranian EFL learners and Indian ESL learners in using the underlining strategy (S2).

H3: Proficiency level of learners can facilitate underling strategy training in both Iranian and Indian contexts.

H4: There is an observable relationship between gender and reading comprehension after the reading strategy intervention in both Iranian and Indian contexts.

### **3. METHOD**

#### **3.1. Participants**

189 English learners participated in the study, as shown in Table 1. Ninety six of the learners were studying English as a foreign language at three different universities including both private and public universities in Tehran, Iran. The remaining 93 learners were studying in an ESL environment in three colleges, including private and public, in Mysore, India. All of the subjects were majoring in English and were enrolled in the first or second year of their undergraduate degree program. Demographic information about the subjects was collected through a background questionnaire. There were 80 males and 109 females students in the sample. Their ages ranged from 18 to 30, with a mean of 24. All of them had completed 12 years of schooling and had graduated from high school prior to their enrollment in college. The subjects took a TOEFL proficiency test that included 40 multiple-choice questions. Based on their scores, the subjects were divided into low, moderate, and high groups as shown in Table 1.

**Table 1** Classification of students according to proficiency level and gender

Level of proficiency/ Gender	EFL	ESL	Total
Male	30	50	80
Female	66	43	109
Low	25	8	33
Intermediate	59	62	121
High	12	23	35

### 3.2. Materials

The following three instruments were used for the purpose of this study:

*Language proficiency test (TOFEL).* This test comprised of multiple-choice reading passages, vocabulary, and grammar sections. In order to test the reliability of the proficiency test, a pilot study was carried out on 20 students in both Iranian and Indian contexts. Its reliability through the K-R21 formula turned out to be .70 and .75, respectively, which were significant enough results to merit taking the next step.

*Test of reading comprehension in English.* The test of reading comprehension in English was from *Kit of Reading Comprehension* (Rajinder S., 2008). The time allowed was 20 minutes as determined at the piloting stage. The reading passages used in this study contained a general content, which were of interest to the students. Going through K-R21 formula, it was indicated that the reading comprehension test was reliable enough (.72) for the respective goal in the present study. After calculating the correlation coefficient (.70) between the TOEFL proficiency test and the reading test in the piloting stage, the reading test also turned out to be suitable for this study.

*Background questionnaire.* This questionnaire was developed by the researchers. Its main purpose was to elicit background information about the participants. It covered issues such as the subjects' age, gender, place of living, years of studying English, name of college, and medium of instruction.

### 3.3. Procedure

Twenty students randomly selected from three different colleges participated in a pilot study of the comprehension pretest and TOEFL proficiency test in both Iran and India. During this pilot test, some tests were revised and prepared for the main subjects. Then, after filling out the background questionnaire, the proficiency of 189 participants was determined by TOEFL proficiency test (Mean= 17 & SD= 5.60). Based on the result of this test, subjects were divided into three groups in both EFL and ESL contexts as mentioned in Table 1. Then, all subjects were given three multiple-choice reading comprehension texts including 12 multiple-choice questions.

Upon the completion of these tests, the next phase of the experiment started with some treatment sessions that included a demonstration of the underlining strategy. In these sessions, underlining strategy was demonstrated and modeled after the Cognitive Academic Language Learning Approach, developed by Chamot and O'Malley (1994). This model included five instructional phases. First, the teacher defined the underlining strategy in context while reading. Second, the teacher modeled and practiced the strategy for an entire session. In this instructional phase, the students were given explicit, direct instruction in the use of the underlining strategy. Third, the students practiced the underlining strategy with familiar contexts and familiar tasks which were provided for them by the instructor; in subsequent strategy practice, the researcher encouraged independent strategy use. Also, the teacher provided scaffolding until they became independent. Fourth, the students evaluated their own strategy use immediately after each practice session by checking the strategy they had used and monitoring their understanding. Fifth, to develop a larger repertoire of strategies, the students were asked to apply this strategy to new tasks.

In addition, a self-made pamphlet was given to the subjects for the purpose of practicing this strategy. It included the steps to be followed when underlining important information while reading a text. These steps, taken from Smith (1985: 102) are: First, read the whole passage thoroughly; Second, do not underline words or sentences as they are first read; underlining should be done after recognizing the main theme of the passage; Third, re-read the

passage and finally, underline the key words, main ideas in each paragraph, and their supporting details.

Next, students were given a passage and were allowed to read and underline important information within the text following the given steps. This was followed by a class discussion in order to check the students' underlining procedure.

After the treatment sessions, which lasted about 2 months, the subjects did a post-test, which included the same reading comprehension texts as the pre-test. Directions were printed for the students to read silently while the instructor read out loud. All subjects were instructed to underline the main ideas in the passage while reading these texts. When the reading and underlining were completed, they were asked to answer the questions. Finally, the results of both pretest and posttest were compared for data analysis.

#### 4. RESULTS AND DISCUSSION

The purpose of this study was to determine the effectiveness of teaching underlining strategy as a reading strategy to EFL and ESL students from Iran and India. To achieve this, the instructor gathered both quantitative and qualitative data on changes in the students' reading behavior thanks to learning how, when, and why to use underlining strategy during reading.

In order to find out whether the strategy had an impact on the reading comprehension of the Iranian EFL and Indian ESL learners, a paired T-test was carried out to evaluate the differences between the scores obtained by the students in both the pre-test and posttest administered in the study as shown in Table 2.

Table 2 Paired Sample Statistics for Iranian and Indian Subjects						
Group		N	Mean	S.D	T	Sig
Iran	Pretest	96	1.52	.754	13.390	.000
	Posttest	96	2.82	.754		
	Total	96	1.302	.953		
India	Pretest	93	1.82	.943	16.016	.000
	Posttest	93	3.41	.695		
	Total	93	1.591	.958		
Note * p < .01. ** p < .005						

As presented in Table 2, there is a statistically significant difference between Iranian students in reading comprehension performance before treatment (pretest) and after the instruction (posttest) ( $t= 13.390$ ;  $p< .001$ ). In other words, Iranian subjects scored higher in posttest ( $M=2.82$ ,  $SD= .754$ ) than pretest ( $M=1.52$ ,  $SD= .754$ ). Regarding the results of Indian students, they also performed better in reading comprehension after the strategy instruction ( $t=16.016$ ;  $p<.001$ ). In fact, they scored higher in posttest ( $M= 3.41$ ,  $SD= .695$ ) than pretest ( $M= 1.82$ ,  $SD= .943$ ). Therefore, the hypothesis H1 is accepted. That is, underlining strategy training had a positive effect on the performance of Iranian and Indian students in reading comprehension.

To measure the difference between Iranian and Indian undergraduate students with respect to underlining strategy instruction, an ANCOVA was calculated using the posttest scores as the dependant variable and scores from the pretest as a covariate one. Mean and standard deviations of the three groups including low, moderate, and high in both EFL and ESL contexts are displayed in Table 3.

<b>Table 3 Mean Post S1 Scores (Underlining Strategy) of Samples in Different Levels of Proficiency in Iran and India</b>			
<b>Country</b>	<b>Group</b>	<b>Mean</b>	<b>S.D</b>
Iran	Low	2.36	.57
	Moderate	2.97	.74
	High	3.08	.79
	Total	2.82	.75
India	Low	3.25	.46
	Moderate	3.31	.74
	High	3.74	.54
	Total	3.41	.70
Total	Low	2.58	.66
	Moderate	3.14	.76
	High	3.51	.70
	Total	3.11	.78

The ANCOVA shows a significant effect for country as an independent variable as the obtained F value of 23.124 was significant at .05 level ( $F= 23.124$ ,  $P< .000$ ). In other words, Indian students ( $M= 3.41$ ,  $SD=.70$ ) performed better in reading comprehension in comparison to Iranian counter-

parts ( $M=2.82$ ,  $SD=.75$ ) after underlining strategy instruction. Therefore, the hypothesis H2 is also accepted.

The next step is to see if the third hypothesis is true or not. As is evident from Table 4, there is no significant difference between proficiency level and students' performance in reading comprehension after underlining strategy instruction in Iranian and Indian contexts. The interaction effects between country and group (low, moderate, and high) ( $F=2.605$ ;  $P<.077$ ) are non-significant.

<b>Table 4 Results of ANCOVA for Mean Post S2 Scores (Underlining Strategy) of Sample in Different Levels of Proficiency in Iran and India</b>					
Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
S2	3.803	1	3.803	8.248	.005
Country	10.662	1	10.662	23.124	.000
Group	1.938	2	.969	2.102	.125
Country * Group	2.402	2	1.201	2.605	.077
Error	83.918	182	.461		
Total	1944.000	189			
Corrected Total	114.667	188			

The results of data analysis (ANCOVA) in Table 5 indicate that there is a statistically significant interaction between gender and country once the underlining strategy intervention is considered in relation to the fourth hypothesis ( $F=4.282$ ;  $P<.040$ ). In other words, Indian males and females performed better than their Iranian counterparts in reading comprehension after the underlining strategy instruction as it is observed from the means of both groups in Table 6 (3.20 vs. 2.87 for males and 3.14 vs. 2.80 for females). However, the analysis of gender within the same country group shows that, in general, gender does not have a significant impact on Iranian or Indian learners as F value is reported to be 1.226 ( $p<.27$ ).

**Table 5** Results of ANCOVA for Mean Post S2 Scores (Underlining Strategy) of Males and Females in Iran and India

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
S2	5.372	1	5.372	11.194	.001
Country	11.273	1	11.273	23.491	.000
Sex	.588	1	.588	1.226	.270
Country * Sex	2.055	1	2.055	4.282	.040
Error	88.301	184	.480		
Total	1944.000	189			
Corrected Total	114.667	188			

**Table 6** Mean Post S2 Scores (Underlining Strategy) of Males and Females in Iran and India

Country	Gender	Mean	S.D
Iran	Male	2.87	.730
	Female	2.80	.769
	Total	2.82	.754
India	Male	3.20	.670
	Female	3.65	.650
	Total	3.41	.695
Total	Male	3.08	.708
	Female	3.14	.833
	Total	3.11	.781

## 5. CONCLUSIONS

Our research investigated the effect of underling strategies on the performance of undergraduate Iranian EFL and Indian ESL students in multiple-choice reading comprehension tests. As it has been indicated in Table 2, both Iranian and Indian undergraduate students had better performance in multiple-choice reading comprehension tests after they were instructed in how, when, and why to underline information in a given text. Thus, this study claims that underlining improves retention of passage material because it motivates students to focus on identifying ideas of high structural importance. High level sentences (main idea or topic sentences) help readers integrate more specific lower level sentence ideas (supporting sentences). This effect could be justified by connectionist models which “attempt to achieve theoretical generalizations by explaining reading in terms of basic

principles of learning, knowledge representation, and information processing that govern many aspects of language and cognition” (Rayner et al., 2001: 53).

The second finding elicited from this study is that Indian ESL students were able to perform better in comparison to Iranian EFL counterparts. Two factors which should be considered here are reading ability and background knowledge. One clear conclusion from the literature is that teaching the use of underlining to students below or above a certain level of reading ability is not appropriate given that there is a consistent finding that reading ability correlates highly with underlining (Blanchard & Mikkelsen, 1987; Zanas, 1996). Theoretically, if there is appropriate background knowledge available and it is engaged effectively, background knowledge should serve to reduce the amount of text underlined as students focus only on marking the most important concepts (Caverly, Orlando & Mullen, 2000). However, our has not found this to be the case. ESL learners, in comparison to EFL learners, have more contact with English and receive more input whether in or out of classes. They are able to acquire more background knowledge and experience better reading performance while underlining. This may explain why Indian learners performed better than the Iranian students in both pre- and posttest. In addition, generally learners in a second language learning environment use strategies more frequently than those in foreign language learning situations (Green & Oxford, 1995; Oh, 1992) resulting in better performance on the part of ESL learners in employing those strategies.

Regarding proficiency level as a variable in the study, no significant difference was found between students’ proficiency level and students’ performance in reading comprehension after underlining strategy instruction in EFL and ESL contexts. Of course, it should be emphasized that students with high degree of proficiency reported a better mean than those of moderate and low proficiency in both contexts. This difference cannot be related to the effect of underlining strategy training because, as Hakstain (1971) states, students who scored higher on academic proficiency tests tended to perform better on reading tests regardless of the study-reading strategy they were asked to use.



With respect to gender as another variable considered in this study, there was no significant difference between males and females in both contexts. At the same time many research findings show that males and females use different strategies in language learning particularly in reading comprehension (Chavez, 2001; Sheorey, 1999; Kaylani, 1996). Oxford (1994), for example, states that males tend to be more analytic while females tend to be more global in their approach to language learning. Furthermore, males and females may use the same number of strategies in language learning but females are more skillful at applying these strategies qualitatively.

## 6. PEDAGOGICAL IMPLICATIONS

The results of this study are important for language teachers trying to enhance their students' awareness of the benefits of using underlining strategies during reading and for teaching their student's how to use those strategies (Salataci & Akyel, 2002). Most research indicates that

[...] in the first place, teachers themselves need to be aware of the strategies underlying their classroom practices; secondly, in addition to making these strategies explicit to the students, they need to create opportunities for students to apply them in class (Nunan, 1997: 72; Bang & Zhao, 2007).

The following are some recommendations that will help students use underlining as an effective study strategy. First it is important to point out that teachers are in charge of explaining to students that they need to acquire a repertoire of study strategies and learn when to apply what strategy for best retention. Obviously, knowing when and how to apply a particular strategy implies that students have developed standards and criteria for using each one - a major step toward successful study experiences. Thus, teachers must provide specific instruction on how, when, and why to use a particular strategy; this would include teacher demonstration and modeling of various study strategies, like underlining, to the students.

In addition, underlining should not be taught to students who are not developmentally ready to use it (e.g., those who are unable to recognize main ideas); underlining cannot overcome poor reading ability. Underlining also

seems to help only if what the student underlined was on the test. If the test measures concepts not underlined or inferred from the text, underlining does not help. Underlining is not effective unless the student is taught to regularly review what they have underlined.

One of the goals of this study was to know whether underlining is effective when learners are answering a multiple-choice reading comprehension test and the result do in fact confirm this hypothesis. Even so, the underlining strategy might not always be effective when participants answer fill-in-the-blank questions because the vocabularies in the text might be too difficult for the participants to memorize and recall. This implies that we can expect the effectiveness of underlining when we choose an appropriate test material for future.

Schumacher (1987) hypothesized that the difficulty of the material (i.e., readability level, length of the passage, explicitness of the structure, and relevance for the student) determines the effectiveness of underlining, particularly because reading ability seems to be a factor in the effectiveness of underlining. It was reasoned that if the demands of the material are great, underlining should allow external storage of the ideas gathered, thus facilitating later review and reducing the processing demands (e.g., Rickards, 1980, as cited in Hartley et al., 1980). Therefore, it would be prudent to manipulate the interaction between the subject and the material variables when attempting to determine the effectiveness of the underlining strategy.

## BIBLIOGRAPHY

- Afflerbach, P. (1990). The influence of prior knowledge on expert readers' main idea construction strategies. *Reading Research Quarterly*, 25, 31-46.
- Ahmad, I. S., & Asraf, R. M. (2004). Making sense of text: Strategies used by good and average readers. *Reading Matrix*, 26-37. Retrieved March 10, 2007, from [http://www.readingmatrix.com/articles/asraf\\_ahmad/article.pdf](http://www.readingmatrix.com/articles/asraf_ahmad/article.pdf).
- Anderson, J. H., & Armbruster, B. B. (1985). Study strategies and their implications for textbook design. *TESOL Quarterly*, 20, 159-173.
- Anderson, R.C., & Pearson, P.D. (1984). A schema-theoretic view of basic processes in reading. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 255-292). New York: Longman.

- Bang, H. J., & Zhao, C. G. (2007). Reading strategies used by advanced Korean and Chinese ESL graduate students: A case study. *The Reading Matrix*, 7(1). Retrieved February 10, 2008, from <http://www.readingmatrix.com/articles>.
- Blanchard, J. and Mikkelsen, V. (1987). Underlining performance outcomes in expository text. *Journal of Educational Research*, 80, 197-201.
- Block, E. L. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, 20, 463-494.
- Block, E. L. (1992). See how they read: Comprehension monitoring of L1 and L2 readers. *TESOL Quarterly*, 26, 319-342.
- Brady, P. J., & Rickards, J. P. (1979). How personal evaluation affects the underlining and recall of prose material. *Journal of Reading Behavior*, 11(1), 61-68.
- Brown, A. L., & Day, J. D. (1983). Macrorules for summarizing texts: The development of expertise. *Journal of Verbal Learning and Verbal Behavior*, 22, 1-14.
- Brown, A. L. & Smiley, S. S. (1978). The development of strategies for studying texts. *Child Development*, 49, 1076-1088.
- Cashen, V. M., & Leicht, K. L. (1970). Role of the isolated effect in a formal educational setting. *Journal of Educational Psychology*, 61, 484-486.
- Caverly, D. C., Orlando, V. P., & Mullen, J.L. (2000). Textbook study reading. In R.F. Flippo and D. C. Caverly, *Handbook of College Reading and Study Strategy Research* (pp. 105-149). New Jersey: Lawrence Erlbaum Associates, Inc
- Chamot, A. U. (1998). *Teaching learning strategies to language students*. (ERIC Document Reproduction Services No. ED433719).
- Chamot, A. U., & Kupper, L. (1989). Learning strategies in foreign language instruction. *Foreign Language Annals*, 22, 13-24.
- Chamot, A., & O'Malley, J. (1987). The cognitive academic language learning approach: A bridge to the mainstream. *TESOL Quarterly*, 21, 227-249.
- Chamot, A., & O'Malley, J. (1994). *The CALLA Handbook: Implementing the Cognitive Academic Language Learning Approach*. Addison-Wesley Pub. Co.
- Chavez, M. (2001). *Gender in the language classroom*. Boston: McGraw Hill.
- Clump, M. A., Bauer, H. & Bradley, C. (2004). The extent to which Psychology students read textbooks: A multiple class analysis of reading across the Psychology curriculum. *Journal of Instructional Psychology*, 31, 227-229.
- Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers*. New York: Newbury House.
- Derry, S. J. (1988-1989). Putting learning strategies to work. *Educational Leadership*, 46(4), 4-10.
- Di Vesta, F. and Gray, G. (1973). Listening and note taking. *Journal of Educational Psychology*, 64, 278-287.
- Fass, W., & Schumacher, G. (1978). Effect of motivation, subject activity, and readability on the retention of prose material. *Journal of Educational Psychology*, 70, 803-807.

- Glynn, S. (1978). Capturing reader's attention by means of typographical cueing strategies. *Educational Technology*, 18, 7-12.
- Golding, J. M., Fowler, S.B. (1992). The limited facilitative effect of typological signals. *Contemporary Educational Psychology*, 17, 99-113.
- Green, J. M., & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency, and gender. *TESOL Quarterly*, 29, 261-297.
- Hakstain, A.R. (1971). The effects of type of examination anticipated on test preparation and performance. *Journal of Educational Research*, 64, 319-324.
- Hartley, J., Bartlett, S., & Branthwaite, A. (1980). Underlining can make a difference—sometimes. *Journal of Educational Research*, 73, 218-224.
- Hudson, T. (2007). *Teaching second language reading*. Oxford, England: Oxford University Press.
- Johnson, D. D. & Von Hoff Johnson, B. (1986). **Highlighting vocabulary in inferential comprehension instruction**. *Journal of Reading*, 29 (7), 622-25.
- Johnson, D. and Wen S., (1976). Effects of correct and extraneous markings under time limits on reading comprehension. *Psychology in the Schools*, 13, 454-456.
- Kaylani, C. (1996). The influence of gender and motivation on EFL learning strategy use in Jordan. In: R. Oxford, Editor, *Language Learning Strategies Around the World: Cross-Cultural Perspectives*, University of Hawaii, Honolulu (1996), pp. 75-88.
- Klare, G. R., Mabry, J. E., & Gustafson, L. M. (1955). The relationship of patterning (underlining) to immediate retention and to acceptability of technical material. *Journal of Applied Psychology*, 39(1), 41-42.
- Lindblom-Ylänne, S. (2004). Raising students' awareness of their approaches to study. *Innovations in Education and Teaching International*, 41(4), 405-421.
- Macaro, E. (2001). *Learning strategies in foreign and second language classroom*. London: Continuum International.
- Macaro, E., & Erler, L. (2008). Raising the achievement of young-beginner readers of French through strategy instruction. *Applied Linguistics*, 29, 90-119.
- Marxen, D.E. (1996). Why reading and underlining a passage is a less effective study strategy than simply rereading the passage. *Reading Improvement*, 33(2), 88-96.
- Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249-259.
- Nist, S.L., & Hogrebe, M.C. (1987). The role of underlining and annotating in remembering textual information. *Reading Research and Instruction*, 27(1), 12-25.
- Nunan, D. (1997). Strategy training in the language classroom: An empirical investigation. *RELC Journal*, 28, (2), 56-81.
- Oh, J. (1992). Learning strategies used by university EFL students in Korea. *Language Teaching*, 1, 3-53.
- Oxford, R. L. (1993). Research on second language learning strategies. *Annual Review of Applied Linguistics*, 13, 175-187.

- Oxford, R. L. (1994). Individual differences among your ESL students: Why a single method can't work. *Journal of Intensive ESL Studies*, 7, 27-42.
- Peterson, S. E. (1992). The cognitive functions of underlining as a study technique. *Reading Research and Instruction*, 31 (2), 49-56.
- Pressley, M. (2002). Metacognition and self-regulated comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 291-309), Newark, DE: International Reading Association.
- Rajinder, S. D. (2008). *Kit of reading comprehension*. New Delhi: Dhillon Group of Publication.
- Rayner, K., Frooman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2001). How should reading be taught? *Psychological Science in the Public Interest*, 2(2), 31-74.
- Rickards, J., & August, G. J. (1975). Generative underlining strategies in prose recall. *Journal of Educational Psychology*, 67, 860-865.
- Rickards, J. P. (1980). Notetaking, underlining, inserted questions, and organizers in text: Research conclusions and educational implications. *Educational Technology*, 20(6), 5-11.
- Salataci, R., & Akyel, A. (2002). Possible effects of strategy instruction on L1 and L2 Reading. *Reading in a Foreign Language*, 14(1). Retrieved June 5, 2008, from <http://nflrc.hawaii.edu/rfl>.
- Schumacher, G. M. (1987). Executive control in studying. In B.K. Britton & S.M. Glynn (Eds.), *Executive control processes in reading* (pp. 107-144). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Seki, U. (1997). Effects of Itemization and Highlighting Key Words on Text Comprehension. *Journal of Japan Society for Educational Technology*, 21, 17-20.
- Sheorey, R. (1999). An examination of language learning strategy use in the setting of an indigenized variety of English. *System* 27 (1999), pp. 173-190.
- Simpson, M. L., & Nist, S. L. (2000). An update on strategic learning: It's more than textbook reading strategies. *Journal of Adolescent & Adult Literacy*, 43(6), 528-541.
- Simpson, M. L., & Nist, S. L. (2002). Encouraging active reading at the college level. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction: research-based best practices* (pp. 365-379), New York: Guilford.
- Stordahl, J. B., & Christensen, C. M. (1956). The effect of study techniques on comprehension and retention. *Journal of Educational Research*, 49, 561-570.
- Thompson, I. & Rubin, J. (1996). Can strategy instruction improve listening comprehension? *Foreign Language Annals*, 29(3), 331-342.
- Uosaki, Y., Itoh, H., and Nojima E. (2003). Effectiveness of Underlining the Texts on Readers' Comprehension. *Journal of Japan Society for Educational Technology*, 26(4), 349-359.
- Van Hout-Wolters, B. (1990). *Teachers' selection of key phrases in instructional texts*, Paper presented at the 40<sup>th</sup> annual meeting of the National Reading Conference in Miami, FL.
- Vianty, M. (2007). The comparison of students' use of metacognitive reading strategies between reading in Bahasa Indonesia and in English. *International Education Journal*, 8(2), 449-460.
- Wade, S. E., & Adams, R.B. (1990). Effects of importance and interest on recall of biographical text. *Journal of Reading Behavior*, 22, 331-353.

- Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 315-327). New York: Macmillan.
- Winograd, P. N. (1984). Strategic difficulties in summarizing texts. *Reading Research Quarterly*, 19, 404-425.
- Yip, M. C. W., & Chung, O. L. L. (2005). Relationship of study strategies and academic performance in different learning phases of higher education in Hong Kong. *Educational Research and Evaluation*, 11(1), 61-70.
- Yüksel, S. & Koşar, E. (2001) Eğitim fakültesi öğrencilerinin ders çalışırken kullandıkları öğrenme stratejileri. *Çağdaş Eğitim*, 26(278), 29-36.
- Zanias, G. S. (1996). The effect of supplementary entries on reading comprehension tests in college level, developmental reading classes. (ERIC Document Reproduction Service No. ED 393 080).
- Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness*, 10, 268-288.

## EL AUTOR

- \*\* Alireza Karbalaee, a Ph.D. Candidate for TEFL at Mysore University, India. His main research areas are reading strategies, affective variables, language acquisition and learning, TEFL, and TESL. Email: Alireza\_karbalaee\_2007@yahoo.com

