The Relationship Between Reading in L2 (English) as the First Foreign Language and L3 (Arabic) as the Second Foreign Language: Which Model: Total Separation, Total Integration, or Interconnection?

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#### Abstract

This study intends to find out whether readers process texts the same or differently in the first foreign language (English, L2) and the second foreign language (Arabic, L3). Two groups of intermediate and advanced English proficiency were selected and put into control and experimental groups. Then reading comprehension tests and a reading strategy questionnaire in L2 and L3 were given to the students. The experimental group received reading strategy instruction (RSI) in L2 and finally posttests were given. The results showed that reading strategy awareness and reading ability improved in L2 and L3, showing the two systems are linked in mind. Pedagogically, we can employ RSI in L2 to improve reading strategy awareness and reading ability both in L2 and L3.


Key words: Cognitive and metacognitive reading strategies, reading strategy awareness, first foreign language (L2, English), second foreign language (L3, Arabic).


#### Abstract

o Este estudio intenta descubrir si los lectores procesan textos de la misma manera o diferente en su primer idioma extranjero (inglés, L2) y el segundo idioma extranjero (L3, árabe). Dos grupos de nivel intermedio y avanzado de inglés fueron seleccionados y ubicados en grupos experimentales y de control. Luego se administraron exámenes de comprensión de lectura y cuestionarios de estrategias de lectura en L2 and L3 a los estudiantes. El grupo experimental recibió instrucción de estrategias de lectura (RSI) de nivel L2 y finalmente se le suministraron otras pruebas para evaluar las destrezas postexámen de los estudiantes. Los resultados evidenciaron conciencia de estrategias de lectura y además mostraron un adelanto en la habilidad de lectura en el nivel L2 y L3, mostrando de esta manera que ambos sistemas están vinculados. Pedagógicamente, podemos emplear el RSI en el nivel L2 para así mejorar la conciencia de estrategias de lecturas y las destrezas de lectura en los niveles L2 y L3.


Palabras clave: Estrategias cognoscitivas y metacognoscitivas de lectura, conciencia de estrategias de lectura, primer idioma extranjero (L2, inglés),
segundo idioma extranjero (L3, árabe).

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## Introduction

Among other skills, reading is probably the most important skill learners will need to succeed in their studies (Yorkey, 1970). Since reading is a problem-solving activity, the idea of strategic learning of reading has become the matter of investigation in recent years. Urquhart \& Weir (1998, p. 95) define strategies as "ways of getting around difficulties encountered while reading". As Grabe (1991) mentions, fluent reading is flexible, that is, in order to read efficiently the reader, employs a range of strategies that include skimming ahead, considering titles, headings, pictures and text information, anticipating information to come, and so on. Many studies have shown that reading strategies can be taught to students, and when taught, these strategies help improve student performance in tests of comprehension and recall (Carrell, 1985; Brown \& Palincsar, 1989; Carrell, Pharis, \& Liberto, 1989; Pearson \& Fielding, 1991).

The experience of learning a second foreign language is not new. The learner already knows what it feels like to learn a foreign language. An interesting question in L3 learning is whether it draws upon L2 learning experience at all. L2 learning experiences and strategies affect learning of an L3 (Hufeisen, 2000, in Cenoz et al (eds), 2003, ). To Cook (2001) learning another language makes people think more
flexibly, leading to an increase in language awareness. Awareness as raising of the learning processes gives students a hint of how to learn. Hoffmann (2001) states that bilinguals may have certain advantages with respect to general language proficiency. That is they may be able to acquire a third language more easily than a monolingual learns a second language. Chan Yin Fung (2001, p. 11) states "The learning experience of L2 affects the acquisition process of L3 learners as they become skillful in both metalinguistic knowledge and general learning strategies". Bartelt (1989, in Chan Yin Fung, 2001) mentions that the role of the L2 seems to be prominent in L3 strategy building.

In trilingual studies there is lack of information on the strategic reading behavior of L3 learners who already had the experience of L2 strategic reading. However, in second language acquisition, theorists have argued whether bilingual individuals have two separate stores of information in long-term memory, one for each language, or a single information store accompanied by selection mechanisms for using the L1 or L2. Cook (2003) states three models have been put forward regarding the relationship of L1 and L2, and by extension L2 and L3 in this study as the researcher would like to add, in one mind. According to the first model, the separation model, "the [two] languages are in watertight compartments" (p.6). The L2 user makes no connection between the different languages in mind. If individuals have a separate store of information maintained in each language, then transfer of information acquired in the L1 to L2 or L2 to L1 applications would be difficult because of the independence of the two memory systems. The second model, the integration model, views different languages as forming one system in the mind. So there is little point in counting languages in a
single mind- L1, L 2, L3, etc- as they form a single system. However, neither of the two abovementioned models can be absolutely true because the total separation model is impossible since both languages are in the same mind. Total integration model is also impossible since L2 users can keep the languages apart (Cook 2003; Francis, 1999). In between these two extreme models falls the third model, the interconnection model which contains two main types of linked-languages model and partial integration model. The linked languages model is a variant of the separation model in which two separate language components interact with each other. Studies of language transfer fall in this mode. The partial integration model is a limited version of the total integration model. In this model it is believed that the two language systems partially overlap in the same mind. Like the integration model, "it does not distinguish between languages in the same area of overlap, but sees how the single conjoined system differs from monolingual versions of either language. There may be shared overlapping vocabulary, syntax, or other aspects of language knowledge" (Cook, 2003, p. 8).

In a study aimed at describing and understanding the metacognitive knowledge and strategic reading processes of proficient and less proficient bilingual readers, Jimenez et al. (1995) reported that proficient English and Spanish biliterate readers, like expert monolingual readers, demonstrated remarkable strategic abilities while reading. They also found that bilingual readers tended to have a unitary view of reading and conceive many similarities between reading in Spanish (L1) and English (L2). Finally, they found that the successful bilingual readers were aware of the transfer of knowledge across languages. On the other hand, the less successful readers were found to not have a unitary view of reading.

However, we should distinguish between strategic reading and reading ability when discussing the relationship of two languages in one mind. This study is going to investigate how Iranian EFL students come to read in L2 and L3. In other words, this study will try to find out whether Iranian native speakers of Persian would deal with their reading tasks in the first and second foreign languages in the same manner or not. It is to investigate whether the reading strategy awareness and use and reading ability in Both L2 and L3 increases by reading strategy instruction or not. The findings of the study will shed more light on the nature and relationship of L2 and L3 reading in one mind. The hypothesis is that the strategy instruction will not have any effect on the reading strategy awareness and reading performance of students in L2 and L3. However this study pretends to answer the following four questions:
a) Does cognitive and metacognitive reading strategy instruction in L2 (English) have any effects on increasing the students' reading strategy awareness in L2?
b) Does cognitive and metacognitive reading strategy instruction in L2(English) have any effects on increasing the students' reading strategy awareness in L3(Arabic)?
c) Does cognitive and metacognitive reading strategy instruction in L2(English) have any effects on reading performance in L2?
d) Does cognitive and metacognitive reading strategy instruction in L2(English) have any effects on reading performance in L3?

## Method

## Participants

The participants in this study were 120 iranian pre-university, male students who had English and Arabic courses simultaneously along with other courses. They were 18 to 19 years of age. To come to this level of education means they already passed the English and Arabic tests at the third year of high school with a minimum score of ten out of twenty.

## Materials

The following instruments were used:
a) Language proficiency test (NELSON, series 300 B ).

This test was composed of multiple-choice cloze passage, vocabulary, grammar, and pronunciation sections. In order to have a reliable test of proficiency at the piloting stage the test was give to 15 students. Its reliability through the K-R21 formula turned out to be 0.79 .
b) A reading comprehension test in Arabic.

In this test two passages, each containing fifteen items. Each item carried two points and the nature of the items in terms of recognizing main ideas, vocabulary knowledge, and inferencing was the same for the two passages of the reading comprehension test in Arabic. Item characteristics were also taken care of at the piloting stage. To construct the L3 (Arabic) reading comprehension test the following features were borne in mind: Length of texts.; Content; Genre; Interest of students; Format of the test (A multipleChoice format was used); Time ( The time allotted was 30 minutes as determined in the
piloting stage). It was then given to some Arabic teachers to express their opinion about the suitability of the text for this study. After piloting the test on 15 students the reliability of the test through the K-R21 formula turned out to be 0.84 . This test was validated against the 50 item reading section of the Arabic Proficiency Test (APT) (1994) which was developed by the University of Michigan and the Center for Applied Linguistics. The correlation coefficient turned out to be 0.74 which was suitable for this study.
c) Test of reading comprehension in English.

The test of reading comprehension in English was from the reading component of the CAMBRIDGE PREPARATION FOR THE TOEFL TEST (Gear, J, 1993. pp. 416-421). The time allowed was 40 minutes determined at the piloting stage. To ensure that this test is an appropriate one in terms of text difficulty level to be given to the both groups of proficiency, first from the course books of the pre-university students taking part in this study, two passages were randomly selected. The readability formula was run afterward to obtain an index of readability for them. The mean index turned out to be 19.87. Then the readability formula, after studying many texts, was run for the above-mentioned test of TOEFL, which turned out to be 20.80 seeming suitable for the purpose of this study. To have a reliable test it was piloted on 15 students and through the K-R21 formula the reliability turned out to be 0.82 . Then after calculating the correlation coefficient (0.88) between the Nelson test of proficiency and the test of reading in English in the piloting stage for the purpose of having a valid test, this test of reading turned out to be suitable for this study.
d) Questionnaire.

Strategic approach, or the process of comprehension, was measured by means of a fivepoint Likert scale questionnaire (Never/ Seldom/ Sometimes/ Usually/ and Always true of me). This instrument was adapted from the questionnaire by Sheorey \& Mokhtari (2001) and offered an immediate retrospective picture of reading behavior. Twenty items out of the twenty-six items in the original questionnaire were selected for the purpose of the study (items 1-8 as metacognitive strategies; items 9-20 as cognitive strategies). The reason why these 20 items were selected was the ease of use by students, ease of training to the experimental group as far as time limit was concerned, and finally being of great importance in reading both in L2 and L3 as far as the researcher's experience was concerned. Students were asked to read each item in the questionnaire and select the number that applied to them. The instrument measures two broad categories of reading strategies, namely, metacognitive strategies that are "intentional, carefully planned techniques by which learners monitor or manage their reading", cognitive strategies that are "the actions and procedures readers use while working directly with the text (Sheorey \& Mokhtari, 2001, p. 436). In order to make sure of the internal consistency reliability coefficient of the instrument at the piloting stage it was given to 15 students of a similar group taking part in the study. Based on the data gathered, the reliability coefficient alpha was calculated as 0.82 . We also asked two experts in the field to rate the instrument in terms of how effectively it samples significant aspects of its purpose for providing an estimate of content validity.

## Procedure

First, through administering the Nelson Proficiency test (Series 300B) to 210 preuniversity students, two groups of Intermediate and Advanced language proficiency levels were identified, that is, those whose scores were between -1 and +1 Standard deviation on the normal distribution curve (i,e.37.3-51.62) were taken as intermediate and those whose scores were above +1 Standard deviation (i.e., 51.62 and above) as advanced group, making 120 students in total. The identified subjects were randomly put into control and experimental groups. For the purpose of determining the subjects' current abilities in L2 reading comprehension, the English language reading test was given as a pretest to students which was immediately followed by the general reading strategy questionnaire that would determine what strategies students applied during reading in their L2. The next session the second reading test in Arabic was administered as a pretest among students, followed by the same reading strategy questionnaire which would determine what strategies students would use while reading in Arabic. After the pretest stage was over, the experimental group received strategy treatment along with their regular classroom materials, but the control group was only taught their regular classroom material. The treatment to the experimental group was in L2 with L2 texts but with some code-switching into their L1 in order to make sure they understand the concept. In order to teach students how to read strategically and model strategic reading, the five elements proposed by Winograde \& Hare (1988,cited in Carrell, 1998, p.5) were used as constituting: a) What the strategy is; b) Why a strategy should be learned; c) How to use the strategy; d) When and where the strategies should be used; and e) How to evaluate use of the strategy. A common method of teaching cognitive/metacognitive
strategies is the teacher think-aloud modeling. For example: a teacher can model comprehension monitoring while reading aloud to the students by saying 'I understand this paragraph, so I will go on,' or 'This paragraph doesn't make sense; I'd better reread it'. I explained each single strategy to the students and showed them through modeling how to use it while reading. Then we showed them how to use all the strategies together by reading the text and thinking aloud about it. Later we gave the students a reading text and asked them to read it using all the strategies taught to them while reading. For example, one of the strategies as a task was 'using context clues to guess the meaning of unknown words'. The students were asked to read the text and try to guess the meaning of an unknown word through using the context clues. They were also given opportunities to apply strategies to new, but similar materials provided by the researcher over successive sessions in order to transfer the same strategies to new tasks in L2. The treatment consisted of ten one hour sessions, arranged with the normal class hour. After the treatment was over, both the Experimental and Control groups were given the posttests as had been done in the pretest.

## Results

In this section the data collected will be analyzed in two phases for the four questions.

## Phase one

## Analysis of reading strategy questionnaire in English and Arabic

The Paired t-test statistical procedure was run to answer the first two research questions. Regarding the first research question, as shown in table 1 and 2 the P -Value for the two control groups (Intermediate \& Advanced) exceeds the 0.05 confidence level, there are no
significant differences between the choice of strategies on pretest and posttest in English for the control groups.

Table 1: Paired T-Test and Confidence interval:
Intermediate (Con. Pre. Eng - Con. Post. Eng)

|  | N | Mean | SD | SE Mean |
| :--- | :--- | :--- | :--- | :--- |
| Con. Pre. Eng | 30 | 24.700 | 4.779 | 0.873 |
| Con. Post. Eng | 30 | 24.500 | 3.319 | 0.606 |
| Difference | 30 | 0.20 | 6.14 | 1.12 |
|  |  |  |  |  |
| 95\% Confidence interval for mean difference: (-2.09; 2.49) |  |  |  |  |
| T-Test of mean difference $=0$ (vs. not $=0):$ |  |  |  |  |
| T-Value $=0.18$ P-Value $=0.860$ |  |  |  |  |

Table2: Paired T and Confidence interval:
Advanced (Con. Pre. Eng - Con. Post. Eng)

|  | N | Mean | StDev | SE Mean |
| :--- | :---: | :---: | :---: | :---: |
| Con. Pre. Eng | 30 | 29.100 | 2.074 | 0.379 |
| Con. Post. Eng | 30 | 30.500 | 2.957 | 0.540 |
| Difference | 30 | -1.400 | 3.856 | 0.704 |
| 95\% CI for mean difference: $(-2.840 ; 0.040)$ <br> T-Test of mean difference $=0($ vs. not $=0):$ <br> T-Value $=-1.99$ P-Value $=0.056$ |  |  |  |  |

As shown in table 3 and 4 the P-Value for the two experimental groups (Intermediate \& Advanced) do not exceed the 0.05 confidence level, there are significant differences
between the choice of strategies on pretest and posttest in English for the experimental groups.

Table 3: Paired T-Test and Confidence interval:
Intermediate (Exp. Pre. Eng - Exp. Post. Eng)

|  | N | Mean | SD | SE Mean |
| :--- | :---: | :---: | :---: | :--- |
| Exp. Pre. Eng | 30 | 24.633 | 4.398 | 0.803 |
| Exp. Post. Eng | 30 | 59.667 | 4.715 | 0.861 |
| Difference | 30 | -35.03 | 5.90 | 1.08 |
| $95 \%$ CI for mean difference: $(-37.24 ;-32.83)$ <br> T-Test of mean difference $=0($ vs. not $=0):$ <br> T-Value $=-32.53$ P-Value $=0.000$ |  |  |  |  |

Table 4: Paired T-Test and Confidence interval:
Advanced (Exp. Pre. Eng - Exp. Post. Eng)

|  | N | Mean | SD | SE Mean |
| :--- | :---: | :---: | :---: | :---: |
| Exp. Pre. Eng | 30 | 29.67 | 3.10 | 0.57 |
| Exp. Post. Eng | 30 | 69.40 | 5.52 | 1.01 |
| Difference | 30 | -39.73 | 6.11 | 1.12 |
| 95\% CI for mean difference: $(-42.02 ;-37.45)$ <br> T-Test of mean difference $=0($ vs. not $=0):$ <br> T-Value $=-35.60$ P-Value $=0.000$ |  |  |  |  |

Regarding the second research question, as shown in Table 5 and Table 6, the P-Value for the two control groups (Intermediate \& Advanced) exceed the 0.05 confidence level, there are no significant differences between the choice of strategies on pretest and posttest in Arabic.

Table 5: Paired T-Test and Confidence interval:
Intermediate Con. Pre. Arabic - Con. Post. Arabic

|  | N | Mean | StDev | SE Mean |
| :--- | :---: | :---: | :---: | :---: |
| Con. Pre. Arabic | 30 | 24.133 | 4.158 | 0.759 |
| Con. Post. Arabic | 30 | 25.167 | 4.111 | 0.751 |
| Difference | 30 | -1.03 | 5.68 | 1.04 |
| 95\% C I for mean difference:(-3.15; 1.09) <br> T-Test of mean difference $=0$ (vs. not $=0):$ <br> T-Value $=-1.00$ P-Value $=0.327$ |  |  |  |  |

Table 6: Paired T-Test and Confidence interval:
Advanced (Con. Pre. Arabic - Con. Post. Arabic)

|  | N | Mean | StDev | SE Mean |
| :--- | :---: | :---: | :---: | :--- |
| Con. Pre. Arabic | 30 | 29.333 | 3.010 | 0.549 |
| Con. Post. Arabic | 30 | 30.333 | 3.304 | 0.603 |
| Difference | 30 | -1.000 | 4.518 | 0.825 |
| 95\% C I for mean difference: $(-2.687 ; ~ 0.687)$ <br> T-Test of mean difference 0 (vs. not $=0):$ <br> T-Value $=-1.21$ P-Value $=0.235$ |  |  |  |  |

As shown in Table 7 and Table 8, the P-Value for the two experimental groups (Intermediate \& Advanced) do not exceed the 0.05 confidence level, there are significant differences between the choice of strategies on pretest and posttest in Arabic in control groups.

Table 7: Paired T-Test and Confidence interval:
Intermediate (Exp. pre. Arabic - Exp. post. Arabic)

|  | N | Mean | SD | SE Mean |
| :--- | :--- | :---: | :---: | :---: |
| Exp. pre. Arabic | 30 | 23.500 | 3.857 | 0.704 |
| Exp. post. Arabic | 30 | 60.100 | 5.047 | 0.921 |
| Difference | 30 | -36.60 | 7.18 | 1.31 |
| 95\% C I for mean difference: $(-39.28 ;-33.92)$ <br> T-Test of mean difference $=0($ vs. not $=0):$ <br> T-Value $=-27.92$ P-Value $=0.000$ |  |  |  |  |

Table 8: Paired T-Test and Confidence interval:
Advanced (Exp. pre. Arabic - Exp. post. Arabic)

|  | N | Mean | SD | SE Mean |
| :--- | :---: | :---: | :---: | :--- |
| Exp. Pre. Arabic | 30 | 30.667 | 3.546 | 0.647 |
| Exp. Post. Arabic | 30 | 70.433 | 4.869 | 0.889 |
| Difference | 30 | -39.77 | 5.60 | 1.02 |
| 95\% CI for mean difference: $(-41.86 ;-37.68)$ <br> T-Test of mean difference $=0($ vs. not $=0):$ <br> T-Value $=-38.90$ P-Value $=0.000$ |  |  |  |  |

Phase two
Analysis of reading tests in English and Arabic
A paired T-Test was run to answer the last two questions. The figures in Table 9 are the mean scores.

Table 9: schematic presentation of the study

|  |  | Pretest |  | Posttest |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Eng | Arab | Eng | Arab |
| Exp | Adv | 38.27 | 40.27 | 42.97 | 54.71 |
|  | Int | 33.8 | 36.07 | 38.4 | 41.01 |
| Cont | Adv | 40.07 | 39.4 | 41 | 40.1 |
|  | Int | 36.73 | 35 | 37.1 | 35.9 |

Regarding the third question as presented in Table 10, the P-Value for the effect of the proficiency level, is greater than the Confidence level, i.e, 0.05 .These results indicate that there is not a significant difference between the Control Intermediate Pretest \& Posttest and Control Advanced pretest \& post test mean scores in English. But Table 11, indicates that the P-Value for the effect of the proficiency level, is less than the Confidence level, i.e, 0.05 .These results indicate that there is a significant difference between the Experimental Intermediate Pretest \& Posttest and Experimental Advanced pretest \& post test mean scores in English.

Table 10: Paired Samples Test of Between
Subject Effect in Control Intermediate \& Advanced English

|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
|  | Cont. Int. Pre. Eng. \& Cont. Int. Post. Eng |  | -. 267 | 2.559 | . 467 | -1.222 | . 689 | -. 571 | 29 | . 573 |
| $\begin{aligned} & \text { Pair } \\ & 2 \end{aligned}$ | Cont. Adv. Pre. Eng. \& Cont. Adv. Post. Eng | -. 600 | 1.905 | . 348 | -1.311 | . 111 | -1.725 | 29 | . 095 |

Table 11: Paired Samples Test of Between
Subjects Effect in Experimental Intermediate \& Advanced English

|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
| $\begin{aligned} & \hline \text { Pair } \\ & 1 \end{aligned}$ | Exp. Int. Pre. Eng. \& Exp. Int. Post. Eng |  | -3.600 | 2.127 | . 388 | -4.394 | -2.806 | -9.270 | 29 | . 000 |
| $\begin{aligned} & \text { Pair } \\ & 2 \end{aligned}$ | Exp. Adv. Pre. Eng. \& Exp. Adv. Post. Eng | -4.000 | 1.819 | . 332 | -4.679 | -3.321 | -12.042 | 29 | . 000 |

Regarding the fourth research question, as presented in Table 12, the P-Value for the effect of the proficiency level, is greater than the Confidence level, i.e, 0.05 .These results indicate that there is no significant difference between the Control Intermediate pretest \& posttest and Control Advanced pretest \& post test mean scores in Arabic. But Table 13, indicates that the P-Value for the effect of the proficiency level, is less than the Confidence level, i.e, 0.05 .These results indicate that there is a significant difference between the Experimental Intermediate pretest \& posttest and Experimental Advanced pretest \& post test mean scores in Arabic.

Table 12: Paired Samples Test of between
Subjects effect in Intermediate \& Advanced Arabic

|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
| $\begin{aligned} & \text { Pair } \\ & 1 \end{aligned}$ | Cont. Int. Pre. \& Cont. Int. Post. |  | -. 133 | 2.403 | . 439 | -1.031 | . 764 | -. 304 | 29 | . 763 |
| $\begin{aligned} & \text { Pair } \\ & 2 \end{aligned}$ | Cont. Adv. Pre. \& Cont. Adv. Post. | -. 133 | 2.161 | . 395 | -. 940 | . 674 | -. 338 | 29 | . 738 |

Table 13: Paired Samples
Test of between subjects effect in Intermediate \& advanced Arabic

|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
| $\begin{aligned} & \hline \text { Pair } \\ & 1 \end{aligned}$ | Exp. Int. Pre. \& Exp. Int. Post. |  | -2.333 | 2.468 | . 451 | -3.255 | -1.412 | -5.178 | 29 | . 000 |
| Pair <br> 2 | Exp. Adv. Pre. \& Exp. Adv Post. | -2.667 | 2.309 | . 422 | -3.529 | -1.804 | -6.325 | 29 | . 000 |

## Discussion and conclusion

This study has two findings. First, it was found out that reading strategy instruction in L2 improves the reading strategy awareness in L2, and consequently L3 as a result of the transfer of reading strategies from L2 to L3. Second, this increase in L2 and L3 reading strategy awareness and use will improve reading performance in L2 and L3. The above findings support the interconnection model and specifically linkedlanguages model. In this study it has been found that the reader treats reading tasks in L2 and L3 in the same manner and by employing the same strategic reading experience of L2 in L3, the learner makes a link between the two languages. In this case, it can be concluded that as far as strategy awareness and use is concerned, many areas of weakness in L3 can be covered by rich instruction in L2. L2 knowledge and learning experience will help the learner to foster his L3 learning and to better perform in L3 as far as the strategic reading is concerned. This study showed that the L2 of the L3 user is not a separate entity having no relationship to the L3. L3 strategic reading and by extension L3 learning is susceptible to the L2 reading and learning experience. L2 reading strategies will transfer to L3 reading tasks and L2 strategic reading behaviour will serve readers to read strategically both in L2 and L3. This study showed that the
knowledge of an already acquired foreign language will have an effect on the learning of a further foreign language. The reason why students cannot read adequately in L3 is that they cannot read adequately in L2, in the first place. If only they would have learned to read properly in their L2, the problems of reading in L3 would be highly reduced. In this study both intermediate and advanced proficiency level students showed an increase in their reading strategy awareness and reading ability in L2 and L3. Therefore, if we improve our textbooks in a way that students are taught how to read and learn strategically in their L2, many of the problems in learning and reading in L3 will be solved by the transfer of reading strategies from L2 to L3.

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## Appendix

## Reading Strategy Questionnaire

Directions: Depending on your language learning experience and needs, you may be using different types of strategies. Show how often you use the strategy when reading, by checking the appropriate box. It is important to answer in terms of how well each statement describes you, NOT in rems of what you think you should do. THIS IS NOT A TEST. There are no right or wrong responses to these statements. The scores you obtain will not affect your grades in any course. .

## Metacognitive Reading Strategies

1- I preview text before reading
2- I note text characteristics
3-I determine what to read
4- I use text features(e.g. tables)
5- I use context clues
6- I use typographical aids(e.g. italics)
7- I predict or guessing text meaning
8- Confirm predictions

## Cognitive reading Strategies

9- I use prior knowledge
10- I read aloud when text becomes hard
11- I read carefully

12- I try to stay focused on reading
13- I adjust reading rate
14- I pay close attention to reading
15- I pause and think about reading
16- I visualize information read
$17-$ I evaluate what is read
18- I resolve conflicting information
19- I re-read for better understanding
20- I guessing the meaning of unknown words

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