



The British University in Dubai

Faculty of Education

Module: EDU 523 Med Research Project Report

## **Language Interference between Arabic and English as L1 and L2:**

### **An Experimental Study on the Impact of Exposure to Contrastive Features between English and Arabic by Non Arab Teachers on Students' Performance in Two of the United Arab Emirates Government Schools**

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## Chapter I: Introduction

### Introduction

Interest in how different languages are similar or different began before the emergence of any second language learning theory. However, it is the increase of communication among people of different nationalities that created great interest in the study of what is universal in language versus what is language-specific (Gumperz and Levinson 1996).

It is true that the significance of cross-linguistic influences between languages, otherwise referred to as language transfer, has always been a controversial subject, yet none of the skeptical arguments about the degree of influence of transfer has completely negated the fact that it does have an impact on second language learning to some extent and in specific language aspects.

If the simultaneity of the development of both the first and second languages (L1 & L2) is a condition for bilingualism, then students in the government schools in the UAE do face a challenge to attain bilingualism, since they are the native speakers of Arabic who begin to learn their second language after mastering their first. Beginning at this point, this research will include, but will not be limited to, literature reviews in related themes such as the strategies and processes that the L2 learner employs when learning his/her second language, and the 'transfer' hypothesis first introduced by Lado (1957) which is practically the result of the lack of enough interaction with native speakers of the new target language. As this pioneer of the language transfer theory explains it, learners tend to borrow their native language structures to find solutions for some of the second language learning challenges.

... and since the learner tends to transfer the habits of his native language structure to the foreign language, we have here the major source of difficulty or ease in learning the structure of a foreign language.

(Lado, 1957: 59)

### Problem

This small-scale research will look into the implications of some theories in the area of second language learning and teaching and translate them into forms that help teachers of ESL

in general and non Arab teachers of ESL in particular understand how certain variables play essential roles in second language learning; this is important because even those teachers who have the time to read learning theories can barely find the time to draw the relevance in their own teaching.

The contrastive analysis hypothesis which was first formulated by Lado (1957) and later displaced by error analysis (Corder, 1967) is still a useful approach to predict the types of errors that the learner of a second language is more liable to make and the areas of possible interference. This approach can be most effective when the learners of the second language have already acquired mature structures of their first language, Arabic in this context, and are introduced to the second language relatively late and with a minimum exposure in schools which in most of the cases is limited to the English language subject classes.

Based on the contrastive analysis hypothesis which suggests that difficulties in learning a new language are outcomes of the differences between the new language and the learner's native language, this research presents an experimental study that investigates the impact of the non-Arab ESL teachers' knowledge, versus lack of knowledge, of contrastive analysis on the performance of their students in the process of learning English as a second language. For the purpose of this particular study, only two grammatical aspects of the two languages are studied and these are the use of the definite article and use of prepositions.

### Significance

The significance of this study lies in the fact that it uses the contrastive analysis approach to attain a pedagogical goal in an experimental study, rather than to compare languages and understand the nature of the languages compared. Such a use of contrastive analysis, named by Fisiak (1991) "applied contrastive analysis", has not been experimentally studied in conditions and procedures similar to the ones presented in this research report which is supposed to enlighten the Arab and non-Arab teachers of ESL to help their students overcome some of their language learning difficulties.

### Rationale

In fact, there is more than one underlying reason for this study and the experiment it will include. The first is the increasing number of non-Arabs in the UAE who are involved in teaching English to Arabs, planning curricula, training teachers, and developing materials. This

undoubtedly increases the ESL learners' exposure to natural language and might alter the attitude towards English from viewing it as an imposed school subject to a necessary means of communication. Non-Arab teachers, however, lack the knowledge of certain problematic areas that challenge Arab learners who have Arabic linguistic backgrounds.

The rationale behind the intended experimental study in this paper is to examine the magnitude of the problem on the ground and observe what difference the non-Arab ESL teachers' awareness of the problematic areas makes in the students' learning.

Another underlying reason is my personal teaching experience as a bilingual which drew my attention to the significance of the topic in the actual second language learning procedures. It was therefore a personal motive to look into the topic and try to come up with a simple guide, facts, and suggested implications that might make the efforts of ESL teachers in general and non-Arab ESL teachers in particular more rewarding.

## Research questions

Guided and inspired by a considerable number of cross-linguistics studies and a body of literature on error analysis, including Kharma (1981), Kharma and Hajjaj (1981), Crompton (2011), this study attempts to use the findings of cross-linguistic studies between English and Arabic and the categorization of the types of errors in an experimental study to reach effective recommendations for pedagogical practices by finding satisfying answers to the following research questions:

- What are the interference areas that are most notable among learning English as a second language?
- To what extent does exposure to contrastive features between L1 and L2 by the second language teachers' impact the learners' performance?

The paper then concludes with possible pedagogical implications that may help learners overcome second language learning difficulties.

## Chapter II: Theoretical Background

Language transfer has been a controversial topic in the field of applied linguistics, as well as second language teaching and learning, for more than a century now. Since it was first introduced by Robert Lado in the 1950's, until the last few decades, the language transfer theory has been a central topic of discussion by scholars and linguists. While language transfer was regarded as the paramount factor in second language learning in the 1950's, its importance started to wane in the 1960's when researchers' enthusiasm for the universalist explanations did not find evidence of the relation between learners' errors and language transfer. Recently, however, a balanced perspective has emerged which considers language transfer to be one among a host of other factors that interact together and shape the second language learning process.

Much of the research and theory in the 50's and 60's was based on the notion that language learning is a habit and that learning a second language required the development of a whole new set of habits (Gass and Selinker 2008). Considering this view of language learning, it is very likely that the habits established during the acquisition of the first language would interfere to either hinder or facilitate the establishment of the new set of the second language habits. In the forward to Lado's book, Fries wrote:

Learning a second language, therefore, constitutes a very different task from learning the first language. The basic problems arise not out of any essential difficulty in the features of the new language themselves but primarily out of the special "set" created by the first language habits.

(Fries, 1957)

Krashen (1983) as cited by Oldin (1989) elaborates on transfer saying:

Transfer... can still be regarded as the result of falling back on old knowledge, the L1 rule, when new knowledge... is lacking. Its cause may simply be having to talk before "ready," before the necessary rule has been acquired.

(Krashen 1983:148)

On transfer, Krashen also elaborates that the use of an L1 rule to solve a difficulty in L2 is only a production strategy that cannot help acquisition and is not considered 'real' progress.

Singleton (1987), however, contradicts Krashen's analysis that transfer is a 'falling back', and says that learners of a second language should not ignore the 'head start' they have when coming to a new language. He gives an example on the similarities between vocabulary, writing systems, and other language aspects between English and Spanish, which would automatically reduce the amount of what could be completely new in English for Spanish learners of English as a second language. Krashen's definition of transfer as a 'production strategy' has also been challenged by Oldin (1989) who states that such a definition fails to realize that cross-linguistic influences can be helpful in particularly the two language skills, listening and reading comprehension.

This background on language transfer brought about the emergence of the high interest in contrastive analysis which Oldin (1989) defines in his glossary as 'the systematic comparison of two or more languages'. He also classifies the effects produced by contrastive analysis or cross-linguistic studies into three main categories:

- I. Positive transfer
- II. Negative transfer
  - a. Underproduction
  - b. Overproduction
  - c. Production errors
  - d. Misinterpretation
- III. Differing lengths of acquisition

Littlewood (1984), interestingly explains that the notion of 'interference', which, in this paper, implies no more than negative transfer for the reason that it can be contrasted with positive transfer, can be viewed as an active process through which learners construct rules from earlier encountered data and adapt them to the direction of the new target language system. Hence, Littlewood does not regard learners' errors as signs of failure but as evidence that learners' of a new target language actively construct and develop systems to process the data of the new language and consequently provide educators and researchers insight on how they develop this process by analyzing learners' errors. As Oldin (1989) states, though, error analysis can be helpful only if it is based on 'sound' contrastive analysis which should be more than a structural comparison between the native language and the target language. The significance of quality contrastive analysis lies in the notes derived from the comparisons that can assist teachers and learners to identify the language areas that involve divergence from the norms acquired in L. These notes would help predict areas of difficulty and on the other hand identifies the cross-linguistic similarities that are expected to produce positive transfer.



Based on his view of the active construction of a new system for a new target language, Littlewood states that not all learners' incorrect notions can be attributed to negative transfer; a lot of these incorrect notions are explained by direct reference to the new target language itself. Here, Littlewood broadly classifies errors into two types:

- *Interlingual* errors which result due to transferring rules from L1 to L2
- *Intralingual* errors which are the result of learners' processing the second language in its own terms

The latter type of errors is generally indicated by instances of overgeneralizations and oversimplifications similar to those produced and observed during the first language acquisition process.

For the purpose of this study which mainly looks at pedagogical implications resulting from contrastive analysis with focused attention on interlingual errors and the extent to which they can be avoided by appropriate intervention in the form of applied contrastive analysis, three out of the six assumptions that underlie the Contrastive Analysis Hypothesis (CAH) are cited:

2. The major source of error in the production and/or reception of a second language is the native language.
3. One can account for errors by considering differences between the L1 and the L2
5. What one has to do in learning a second language is learn the differences. Similarities can be safely ignored as no new learning is involved. In other words, what is dissimilar between two languages is what must be learned.

(Gass and Selinker 2008: 96-97)

Within the CAH framework, this study takes on the strong view, otherwise known as the priori view versus the weak posteriori view (Gass and Selinker 2008). This lies in the fact that the experimental study included in this paper is an attempt to investigate the impact of using language-teaching materials during instruction; these materials have been developed based on predictions about learning the target structures to best prevent or minimize the effects of negative language transfer before they are made evident. However, neither this study nor the literature and research written on this area seem to deny the fact that there are other factors like the effects of teaching and learners' varied abilities for language learning which interact with the L1 factor and affect the development of a second language contrary to what has been indirectly implied by the very early version of the Contrastive Analysis Hypothesis.

## Chapter III: Methodology

### Data and Sampling

Although quantitative and qualitative research methods are entirely legitimate in education (Ezzy 2002 in Cohen et al. 2007), this study has been basically built on quantitative data that would enable the testing of a hypothesis and lead to informed results. The nature of this quantitative research entailed the experimental approach which necessitated the control and manipulation of conditions, introduction of an intervention, and measurement of the difference that the intervention makes. The experiment tests the effect of the change caused by one variable on another and required certain canons of reliability that may be unworkable in qualitative research as hinted by LeCompte and Preissle (1993) cited by Cohen et al.(2007). This would assume that the replication of the study using same or very similar samples of participants is more likely to lead to similar results.

Based on corpus studies in the field of contrastive analysis in second language learning including Kharma and Hajjaj (1997), Crompton (2011), Diab (1996) in which Arabic and English were the native language and the second language respectively, it has been concluded that among the many observed syntactic error types attributed to negative transfer of language are the misuse of articles and prepositions.

The data used in this study is based on the corpora of 20 pre and post assessments of 20 students divided into two groups in who belong to two larger and different learning groups with common background and learning conditions including their age group, grade level, performance level and native language. For a more balanced sampling the two groups have been subject to similar experimental conditions including teachers' native language, pre and post assessments and intervention. Each group was subject to two rounds during which the experimental group and the control group were swapped as the procedure section below clarifies.

As the purpose of this research is to establish a cause-effect relationship between two variables in ESL classes by testing whether the non-Arabic speaking teachers' awareness or familiarity with the contrasting features of English and Arabic has any impact on their instruction and consequently on the students' learning, the study tested the relationship between the awareness of the contrastive features of English and Arabic as the independent variable and the learners' performance on their second language learning as the dependent variable. The

assumption behind the experiment was that the two variables demonstrate a cause-and-effect relationship; this research will firstly try to test the reality of this hypothesis and then study and analyze how and to what extent this happens.

## Tools and Procedures

Two similar experiments have been conducted on two groups of ESL learners A & B who belong to the same grade level, are all between 13-14 years of age, have been subject to the teaching of the same English and Arabic curricula for the last three years and belong to the same school system. Each of the two groups were subject to the intervention one time out of the two rounds of the experiment. That is, in each experiment, one group was subject to the planned treatment and hence was the experimental group while the other received no intervention and represented the control group. This approach was used in order to rule out chance in the experiment and avoid unfairness in case there are systematic differences between the two groups (see appendix 1 for the experiment guidelines as given to the participating teachers).

Each of the two rounds of the experiment focused on one of the problematic areas that is an example of the many contrasting features of English and Arabic; in this study, the areas were the use of the definite article 'the' with abstract nouns and the uses of five problematic English prepositions for Arabic learners of English as a second language and these are (on, in, at, by to, for). In each experiment, only one out of the two participating teachers was made aware and familiar with the contrastive analysis between English and Arabic with respect to the grammatical aspect under study. The teachers' were provided by the cross-linguistic features between the two languages and in these two areas as prepared by the researcher including all the required notes that aimed to make the contrastive analysis as sound as possible (appendix 2). Both groups of learners, the one who were exposed to the intervention and the ones who were not, were asked to sit for the same pre and post assessments (see appendix 3). In each round of the experiment which focused on one problematic area, there was one experimental group that received the intervention and one control group that received regular type of instruction without intervention (see appendix 4 for the suggested teaching material).

Results of the pre and post assessments were compared, quantified and analyzed using statistical significance that would allow the comparison of results with and without the introduction of the planned intervention.

The chart below records the experiment procedures:

|   | Group A  | Group B  |
|---|--|--|
| <b>Round 1</b>  | Pre-teaching assessment  | Pre-teaching assessment  |
|   | Teaching with intervention – contrastive aspects between L1 & L2 made clear by the non-Arabic speaking teacher | Teaching with no intervention  |
|   | Post-teaching assessment   | Post-teaching assessment   |
| <ul style="list-style-type: none"> <li>Swapping the experimental &amp; control groups</li> <li>Using a similar but not the same problematic grammatical aspect</li> </ul> |  |  |
| <b>Round 2</b>  | Pre-teaching assessment  | Pre-teaching assessment  |
|   | Teaching with no intervention  | Teaching with intervention - contrastive aspects between L1 & L2 made clear by the non-Arabic speaking teacher |
|   | Post-teaching assessment   | Post-teaching assessment   |

## Syntactic Features

Given that the main goal of this paper is to explore whether students' exposure to the contrastive features of L1 and L2 does affect their performance in the areas investigated and the extent to which it does if it proves to, two major syntactic areas have been explored and these are :

**The use of the definite article 'The':** this area mainly studied the use and the omission of the definite article before abstract nouns. While abstract nouns that refer to attributes, ideas or qualities are not preceded by the definite article in English, such nouns require an article equivalent to 'the' in Arabic (Diab 1996) which is the reason behind the recurring errors that pertain to the misuse of the article in similar contexts. This is why it is very common to hear or read this production from a native speaker of Arabic:

Arabic counterpart (literal): *Friends should share the trust.*  
 الأصدقاء يجب أن يتبادلوا الثقة  
*?alasdika? yajib ?an yatabadalu thika* (ʔ glottal stop)

Instead of: *Friends should share trust.*

**Prepositions and prepositional phrases:** the study focused on the spatial on temporal indications of prepositions knowing that prepositions may also indicate agentive and instrumental relations (Kharma and Hajjaj 1997). Prepositions form one of the biggest challenges for learners of English as a second language in general and Arabic native speakers in particular due to the facts that prepositional systems are generally complex in both English and Arabic and second language learners are initially exposed to and taught the easiest uses of English prepositions and then find it hard to grasp the other more complicated and less systematic uses later on. That is why after learning the simplest uses of the preposition 'on', learners would use 'on' to mean 'at' in a context like:

|                               |                         |   |
|-------------------------------|-------------------------|---|
|                               | <i>Sit on the table</i> |   |
| Arabic counterpart (literal): | اجلس على الطاولة        |   |
|                               | ʔijlis ʕala ʔaltawila   | (ع ʕ Voiced pharyngeal fricative) (ʕala=on) |

Instead of: *Sit at the table*

And using the same strategy of transfer, the learner uses the first meaning learnt of the preposition 'on' to replace all or most of the uses of the Arabic preposition 'على' which in a lot of cases results in incorrect uses due to the fact that the two languages have different collocations of prepositions, and hence another common error is:

*Laugh on* instead of: *laugh at*

## Chapter IV: Results and Discussion

Figures 1 and 2 below show the scores of the two groups of learners in the two rounds of the experimental study on the pre and post instruction assessments.

Figure 1 shows scores of groups A and B in round 1 whose focus was the use and omission of the definite article 'The' where the first column shows the pre and post assessment scores of group A that received the planned intervention in the form of exposure and familiarity to the contrastive features between the two languages and the second column shows the pre and post assessment scores of group B that received regular type of instruction without introducing the intervention variable (see appendix 5 for a full view).

Figure 2 shows the same details but of round 2 whose syntactic focus was the use of the prepositions indicated earlier.

**Group A**

**Group B**

| Group.<br>St.#      | Round 1<br>The Definite Article 'The'<br>With Intervention (exposure to cross-linguistic<br>features) |           |           |           |           |           |           |           |           |            | Group<br>St.# | Round 1<br>The Definite Article 'The'<br>NO Intervention |           |           |           |           |           |           |           |           |            |
|---------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
|                     | Q1<br>-ve   | Q2<br>-ve | Q3<br>+ve | Q4<br>+ve | Q5<br>-ve | Q6<br>-ve | Q7<br>-ve | Q8<br>-ve | Q9<br>-ve | Q10<br>-ve |               | Q1<br>-ve  | Q2<br>-ve | Q3<br>+ve | Q4<br>+ve | Q5<br>-ve | Q6<br>-ve | Q7<br>-ve | Q8<br>-ve | Q9<br>-ve | Q10<br>-ve |
| A.1<br>pre<br>post  | 1<br>1  | 1<br>0    | 0<br>0    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>1    | 1<br>0    | 0<br>0     | B.1           | 1<br>1   | 0<br>0    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0     |
| A.2<br>pre<br>post  | 0<br>1  | 0<br>0    | 1<br>1    | 0<br>0    | 1<br>1    | 1<br>1    | 0<br>1    | 1<br>1    | 1<br>0    | 0<br>0     | B.2           | 1<br>1   | 1<br>0    | 0<br>1    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0     |
| A.3<br>pre<br>post  | 1<br>1  | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0     | B.3           | 1<br>0   | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>0     |
| A.4<br>pre<br>post  | 1<br>1  | 1<br>1    | 0<br>0    | 0<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0     | B.4           | 1<br>0   | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0     |
| A.5<br>pre<br>post  | 1<br>1  | 1<br>1    | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0     | B.5           | 1<br>0   | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.6<br>pre<br>post  | 0<br>1  | 1<br>1    | 0<br>0    | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 1<br>1    | 0<br>0     | B.6           | 1<br>0   | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.7<br>pre<br>post  | 0<br>1  | 0<br>1    | 1<br>1    | 0<br>1    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>1    | 1<br>0    | 0<br>0     | B.7           | 0<br>0   | 1<br>0    | 1<br>0    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.8<br>pre<br>post  | 1<br>0  | 0<br>0    | 0<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>1    | 1<br>1    | 0<br>0    | 0<br>0     | B.8           | 0<br>0   | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.9<br>pre<br>post  | 1<br>1  | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 0<br>1    | 0<br>1    | 0<br>1    | 0<br>1    | 0<br>0     | B.9           | 1<br>1   | 1<br>0    | 1<br>0    | 1<br>0    | 0<br>1    | 0<br>1    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.10<br>pre<br>post | 1<br>1  | 0<br>0    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.10          | 1<br>0   | 1<br>1    | 1<br>1    | 1<br>1    | 0<br>1    | 0<br>1    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |

Figure 1

**Group A**

**Group B**

| Group.<br>Student<br># | Round 2<br>Prepositions<br>NO Intervention<br>Without Intervention (exposure to cross-linguistic<br>features) |           |           |           |           |           |           |           |           |            | Group<br>Student<br># | Round 2<br>Prepositions<br>Without Intervention (exposure to cross-linguistic<br>features) |           |           |           |           |           |           |           |           |            |
|------------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
|                        | Q1<br>+ve   | Q2<br>-ve | Q3<br>-ve | Q4<br>-ve | Q5<br>+ve | Q6<br>-ve | Q7<br>+ve | Q8<br>-ve | Q9<br>-ve | Q10<br>-ve |                       | Q1<br>+ve  | Q2<br>-ve | Q3<br>-ve | Q4<br>-ve | Q5<br>+ve | Q6<br>-ve | Q7<br>+ve | Q8<br>-ve | Q9<br>-ve | Q10<br>-ve |
| A.1<br>pre<br>post     | 0<br>0  | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0    | 1<br>1    | 0<br>0     | B.1                   | 1<br>1   | 0<br>0    | 1<br>1    | 0<br>0    | 1<br>1    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.2<br>pre<br>post     | 0<br>0  | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.2                   | 1<br>1   | 0<br>0    | 1<br>1    | 0<br>0    | 1<br>1    | 0<br>0    | 1<br>1    | 1<br>1    | 0<br>0    | 0<br>0     |
| A.3<br>pre<br>post     | 1<br>0  | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.3                   | 1<br>1   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0     |
| A.4<br>pre<br>post     | 1<br>1  | 0<br>0    | 1<br>0    | 1<br>0    | 1<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.4                   | 1<br>1   | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.5<br>pre<br>post     | 0<br>0  | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.5                   | 1<br>1   | 1<br>1    | 1<br>1    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.6<br>pre<br>post     | 0<br>1  | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.6                   | 1<br>0   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0     |
| A.7<br>pre<br>post     | 0<br>0  | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.7                   | 1<br>0   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.8<br>pre<br>post     | 0<br>0  | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>1    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0     | B.8                   | 0<br>0   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.9<br>pre<br>post     | 0<br>0  | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     | B.9                   | 1<br>0   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |
| A.10<br>pre<br>post    | 0<br>1  | 1<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 1<br>0     | B.10                  | 1<br>0   | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 1<br>0    | 0<br>0    | 0<br>0    | 0<br>0    | 0<br>0     |

Figure 2

## Results

### Negative Transfer

Figures 3 and 4 below visually represent the before and after instruction performance of learners in Round 1 in which Group A were exposed to the contrastive features of the use of the definite article between English and Arabic and hence constituting the experimental group of the round and the performance results of Group B who constituted the control group and were exposed to regular instruction without any exposure to cross-linguistic material.

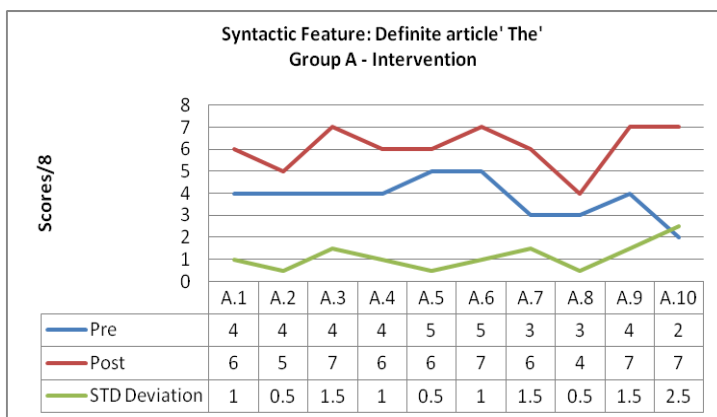


Figure 3

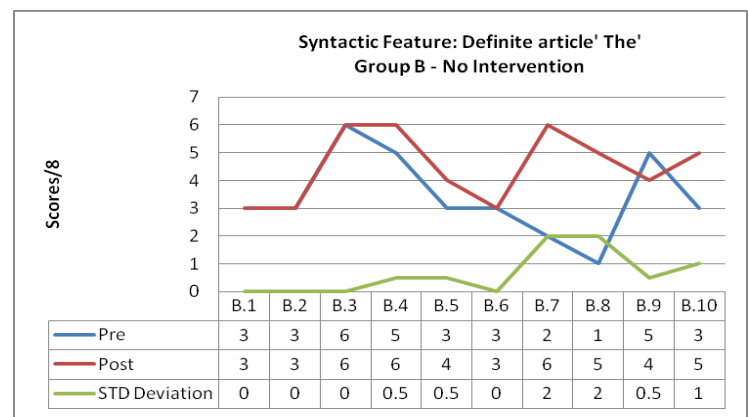


Figure 4

The two figures present scores of the 8 questions developed based on the negative transfer factor anticipated between L1 and L2 due to the incongruent syntactic features between the two languages in terms of the use of the definite article; i.e., the remaining 2 questions which were intended to explore the positive transfer between the two languages have been excluded from the above charts.

As illustrated in Figures 3 and 4 above and Table 1 below, Group A participants have achieved a progress of 38% on their post-intervention assessment versus a 24% progress achieved by group B on their post-instruction assessment depicting a 14% difference in improvement.

| Group-Round | Pre-intervention<br>Total Score of 10<br>participants | Post-intervention<br>Total Score of 10<br>participants | Total increase<br>of points | % of progress |
|-------------|---|--|-----------------------------|---------------|
| A-1         | 38  | 61   | 23                          | <b>38%</b>    |
| Group-Round | Pre-instruction<br>Total Score of 10<br>participants  | Post-instruction<br>Total Score of 10<br>participants  | Total increase<br>of points | % of progress |
| B-1         | 34  | 45   | 11                          | <b>24%</b>    |

Table 1

Figures 5 and 6 below visually represent the before and after instruction performance of learners in Round 2 in which Group A were exposed to regular instruction without any exposure

to cross-linguistic material and hence formed the control group as well as the performance of results of Group B who were exposed to the contrastive features of the use of target prepositions between English and Arabic and hence forming the experimental group.

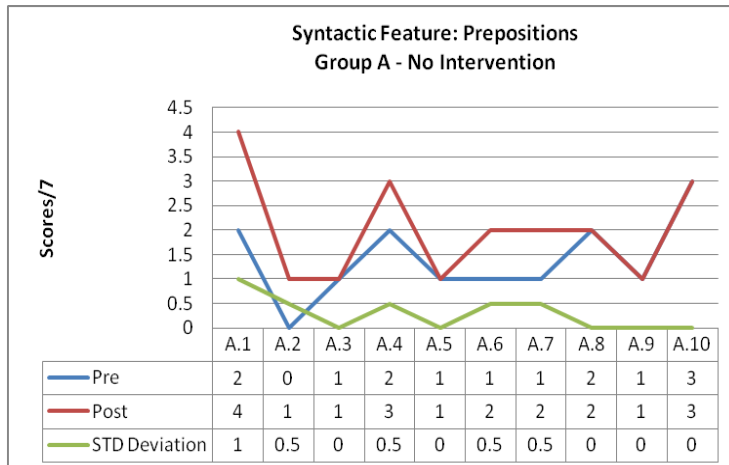


Figure 5

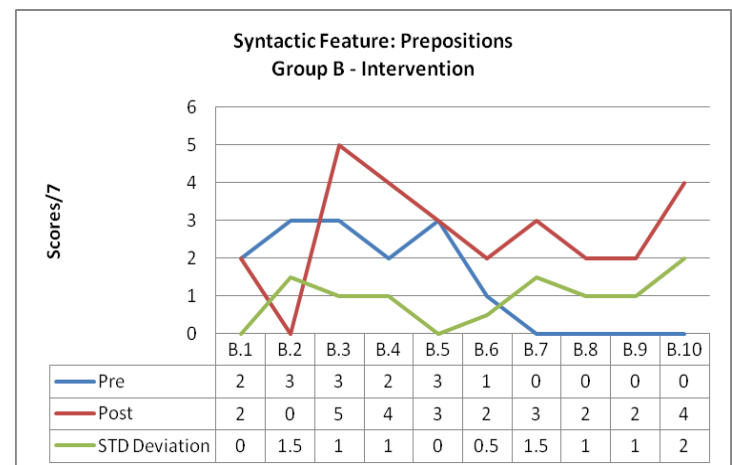


Figure 6

The two figures present scores of the 7 questions developed based on the negative transfer factor anticipated between L1 and L2 due to the incongruent syntactic features between the two languages in terms of the use of the target prepositions; i.e., the remaining 3 questions which were intended to explore the positive transfer between the two languages have been excluded from the above charts.

As illustrated in Figures 5 and 6 above and Table 2 below, Group B participants have achieved a progress of 48% on their post-intervention assessment versus a 30% progress achieved by Group A on their post-instruction assessment depicting an 18% difference in improvement.

| Group-Round | Pre-instruction<br>Total Score of 10<br>participants  | Post-instruction<br>Total Score of 10<br>participants  | Total increase<br>of points | % of progress |
|-------------|---|--|-----------------------------|---------------|
| A-1         | 14  | 20   | 6                           | 30%           |
| Group-Round | Pre-intervention<br>Total Score of 10<br>participants | Post-intervention<br>Total Score of 10<br>participants | Total increase<br>of points | % of progress |
| B-1         | 14  | 27   | 13                          | 48%           |

Table 2



It is worth noting here that a glance at the Round 1 and Round 2 figures indicates that both groups of learners find the correct use of prepositions significantly more challenging than the correct use and omission of the definite article in the target language.

### Positive Transfer

Figures 7 and 8 and Figures 9 and 10 below visually represent similar details as presented above but for scores of the 2 and the 3 questions designed based on the positive transfer factor anticipated between L1 and L2 due to the congruent syntactic features between the two languages in terms of the use of the definite article and prepositions respectively.

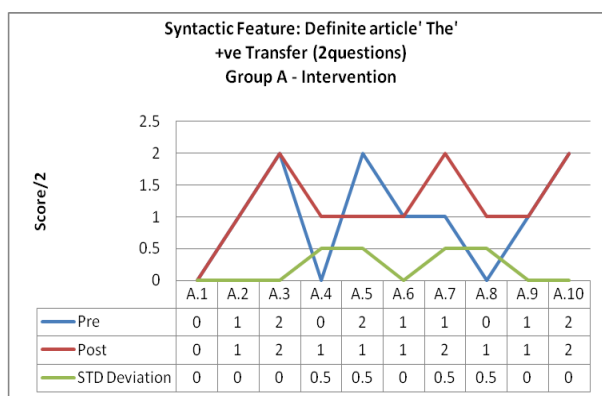


Figure 7

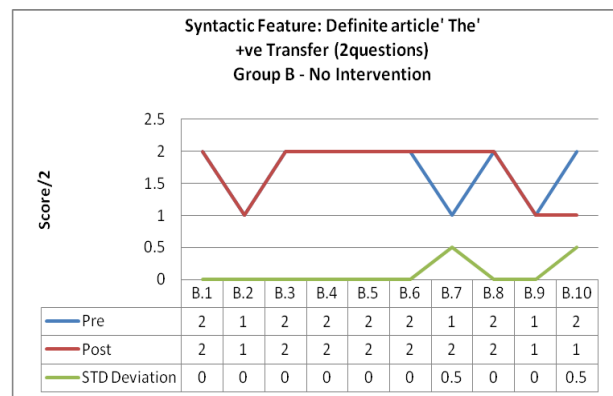


Figure 8

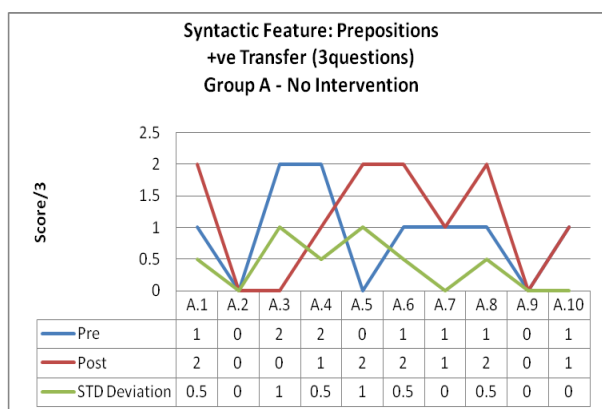


Figure 9

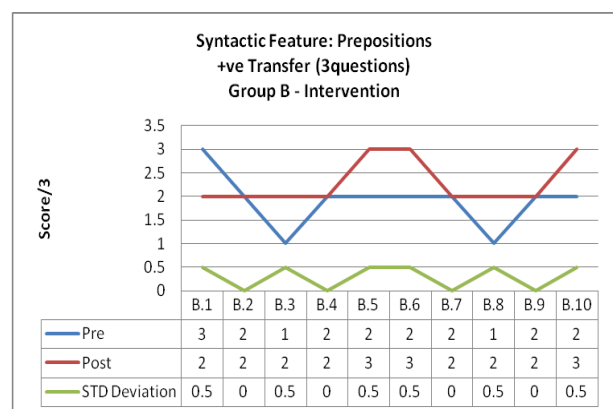


Figure 10

Results show that Group B included learners whose scores were higher and more consistent and hence resulted in a relatively low standard deviation compared to Group B learners who included few individual cases (A.5 in Figure 7 and A.3 / A.4 in Figure 9) whose regression on

the post-teaching assessment indicates an expected confusion in their processing of the teaching they received.

However, an overall reading of the results as shown in Tables 3 and 4 below shows that the range of progress on questions that meant to explore the impact of intervention and teaching on positive transfer has been between 0% -18% versus the progress achieved on negative transfer questions with a range of 24% - 48%.

| Group-Round | Pre-instruction<br>Total Score of<br>10 participants  | Post-instruction<br>Total Score of 10<br>participants  | Total<br>increase of<br>points | % of<br>progress |
|-------------|---|--|--------------------------------|------------------|
| A-1         | 10  | 12   | 2                              | 17%              |
| Group-Round | Pre-intervention<br>Total Score of<br>10 participants | Post-intervention<br>Total Score of 10<br>participants | Total<br>increase<br>of points | % of<br>progress |
| B-1         | 17  | 17   | 0                              | 0%               |

Table 3

| Group-Round | Pre-instruction<br>Total Score of<br>10 participants  | Post-instruction<br>Total Score of 10<br>participants  | Total<br>increase of<br>points | % of<br>progress |
|-------------|---|--|--------------------------------|------------------|
| A-2         | 9   | 11   | 2                              | 18%              |
| Group-Round | Pre-intervention<br>Total Score of<br>10 participants | Post-intervention<br>Total Score of 10<br>participants | Total<br>increase<br>of points | % of<br>progress |
| B-2         | 19  | 23   | 4                              | 17%              |

Table 4

## Discussion

An overall conclusion based on the results presented above which included the pre and post intervention/teaching assessments of two groups of participants, each consisting of 10 learners only, show that both groups of learners with their ability variations had their first language habits/rules clearly influence their production in the new target language particularly prior to instruction and intervention. This is sample evidence on Postman (1971) statement that learners, especially older ones, rarely, if ever, learn anything completely new; they use the information and habits they have built up in the past as their point of departure. Thus, the behaviorist position toward second language learning whose impetus was mainly pedagogical still proves its validity in the second language classrooms where learners' difficulties are primarily caused by the special set of rules developed by their first language habits.

Results have also supported the well-known formulation of Lado (1957) on the insight that linguistic features which are similar to the target language will be simple to learn

Starting from the tenets of the Contrastive Analysis Hypothesis, results found support for the contention that structure-by-structure comparison as called by Gass and Selinker (2008) of the two language systems, the syntactic system in this case, can help promote avoidance or lessen the impact of negative transfer.

Another important conclusion drawn from the error analysis of errors made by learners involved in the study showed individual cases of inconsistencies in errors and corrections. This phenomenon calls for the 'internal syllabus' concept suggested by Littlewood (1984) who explains that despite all the controlled factors surrounding second language learning, the internal syllabus still determines the learning path that the learner follows.

The idea of the internal syllabus is supported by the fact that learners make similar kinds of errors, irrespective of what course of instruction they have followed or whether they have received formal instruction at all.

(Littlewood, 1984: 35)

Learners' internal syllabus works together with other factors listed by Gass and Selinker (2008) as the innate principles of language, attitude, motivation, aptitude, age and other languages known to make second language learning more than a simple matter of habit-formation and its complexity can be hardly reduced to a single explanation.

To conclude this discussion, it is worth verifying that despite the fact that not all occurring errors were predicted and not all predicted errors occurred, the study has empirically validated the significance of the Contrastive Analysis Hypothesis.

## Chapter V: Conclusion

### Limitations

It is worth mentioning that like in any experiment in the field of education, the study have taken place in a social situation in which the subjects are active thinking human beings. So, the nature of the experiment has been at the risk of the many confounding variables that might also play a role in causing the changes under inspection. The participating non-Arab ESL teachers introducing the intervention were for the first time performing differently. Another concern has been the choice of unbiased sampling. It was a challenge to investigate and choose two groups of students as subjects who are typical of any other group in terms age, gender, social and academic backgrounds or any other variable that might influence the performance of the subjects in such an experiment.

Even though the two participating groups took turns in being the control and experimental groups alternatively, there could have been other hidden variables that are impossible to control completely.

### Implications for Practice

From what has been presented in the paper, the two specific syntactic areas covered in the study constitute significant problems for Arab learners of English as a second language and this should have its strong implications for second language instruction in general.

Sound contrastive analysis in the form of structure-by-structure comparison of the sound, morphological and syntactic systems of the native language and the target language provide a basis for the prediction of the language items that are more likely to cause difficulty to the target language learner.

It is important that teachers instructing Arabic ESL learners are informed of the L1 origins of the persistent errors in the Arabic learners' production in English to promote students' noticing of same.

Based on predictions reached, special attention should be given to the areas that are expected to be problematic for the target language learner and special instructional material should be developed for the facilitation of learning.

For the same problematic items, intensive instructional techniques should go with the instructional material to help learners overcome the challenges.

### Future Research

An examination of the results in the current study suggested that teachers' awareness of the cross linguistic features of the learners' L1 and L2 and students' noticing of same might result in improvements in the learners' performance. A still more useful approach might be the comparison of two or more groups of learners with different native languages before and after the intervention of quality cross-linguistic comparisons. Cross-linguistic studies, however, should start by locating 'the best structural description of the languages involved' (Lado 1957, p.67) and extend to include nonstructural factors as suggested by Oldin (1989).

Further pedagogical contrastive analysis studies could profitably aim to answer more precise research questions than the ones explored in this small-scale study and involve more process-product investigations to determine the complex relationship between the teachers' target language and the learners' native language.

## Bibliography

Ambert, A.(ed.)(1991). Bilingual Education and Second Language Acquisition in Academic Contexts. New York-London: Garland Publishing.

Cohen, L., Manion, L. and Morrison, K. (2007). Research Methods in Education. Routledge.

Crompton, P. (2011) Article Errors in the English Writing of Advanced L1 Arabic Learners: The Role of Transfer. *Asian EFL Journal*, 50, pp 4 – 34.

De Bot, K., Lowie, W., and Verspoor, M. (2005). Second Language Acquisition: an advanced resource book. Routledge Applied Linguistics.

Dewaele, J.M., Housen, A., and Clevedon, L.W. (eds.)(1982). Bilingualism: beyond basic principles. Cromwell Press.

Diab, N. (1996). The Transfer of Arabic in the English Writings of Lebanese Students. *The ESPECIALIST*, 18(1), pp.72 – 83.

Doughty, C. and Long, M. (eds.)(2003) The Handbook of Second Language Acquisition. Blackwell Publishing Ltd.

Gass, S. and Selinker, L. (1994). Second Language Acquisition: An Introductory Course. Lawrence Erlbaum Associates, Inc.

Gebhard, J.(1996). Teaching English as a Foreign or Second Language: a teacher self-development and methodology guide. University of Michigan Press.

Kharma, N. and Hajjaj, A. (1997) Errors in English among Arabic Speakers: Analysis and remedies. York Press: Librarie du Liban Publishers.

Kharma, N. (1981). Analysis of the errors committed by Arab university students in the use of English definite-indefinite articles. *International Review of Applied Linguistics*, 19(4), pp. 331-345.

Krashen, S., Scarcella, R., and Long, M. (eds.)(1982) *Child-Adult Differences in Second Language Acquisition*. Series on Issues in Second Language Research. Newbury House Publishers.

Kubota, R., (2010). Cross-cultural Perspectives on Writing: Contrastive Rhetoric. In: Hornberger, N. and McKay, S. (eds) *Sociolinguistics and Language Education*. Multilingual Matters, pp. 265 – 289.

Lado, R. (1957). *Linguistics Across Cultures*. Ann Arbor, MI: The University of Michigan Press.

Lardiere, D. (2009). Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research*, 25(2) pp 173 – 227.

Lightbown, P. and Spada, N. (2006) *How Languages are Learned*. Oxford University Press.

Littlewood, W. (1984). *Foreign and Second Language Learning: language –acquisition research and its implications for the classroom*. Cambridge University Press.

Oldin, T. (1989). *Language Transfer: cross-linguistic influence in language learning*. Cambridge: Cambridge University Press.

Postman, L. (1971). Transfer, interference and forgetting. Woodworth and Schlosberg's experimental psychology. New York, Holt, Reinhart & Winston, 1019-1132.

Singleton, D. and Lengyel, Z. (1995). The Age Factor in Second Language Acquisition: a critical look at the critical period hypothesis. Multilingual Matters Ltd.

Wong, S. and Dras, M. (2009). Contrastive Analysis and Native Language Identification. Australasian Language Technology Association Workshop 2009. pp 53 – 60.

Zobl, H. (1982). A Direction for Contrastive Analysis: The Comparative Study of Developmental Sequences. *TESOL Quarterly*, 16(2) pp 169 – 183.