
RESEARCH ARTICLE

Cross-Linguistic Interference in the Syntactic and Semantic Acquisition of Arabic Language

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ABSTRACT

The present study aims to investigate cross-linguistic interference in the syntactic and semantic acquisition of Arabic. An essay writing test is used to collect data. A total of 30 English and Spanish speakers of Arabic participates in this quantitative study. The participants are selected from three language centers in Jordan via convenient sampling procedures. The analysis of data reveals the following main findings: L1 transfer errors made by English and Spanish speakers of Arabic at the syntactic level account for 45% and 22.1%, respectively, while the percentage of intralingual errors made by English and Spanish speakers of Arabic at syntactic level account for 55%, and 77.9% respectively. On the other hand, the findings demonstrate that the percentage of L1 transfer errors made by English and Spanish speakers of Arabic at the semantic level are 34.85% and 14.3%, respectively, while the total percentage of intralingual errors made by English and Spanish speakers of Arabic at semantic level account for 65.15%, and 85.7 % respectively. The primary source of errors made by English and Spanish speakers of Arabic at both syntactic and semantic levels is intralingual interference.

KEYWORDS

Cross-linguistic, L1 transfer, second language acquisition, intralingual, syntactic errors, semantic error

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1. Introduction

Second Language Acquisition (SLA) concentrates on the process of acquiring another language after the first language (L1) has been established (Gass & Selinker, 2008). In other words, SLA is acquiring a non-native language in the environment in which that language is spoken, e.g., Spanish and English speakers of Arabic in Jordan. In addition, according to Gass and Selinker, SLA is acquiring another language, following the native language. Sometimes, this term can refer to acquiring a third or fourth language.

The basic assumption of SLA is that language learners produce a new language system with only limited exposure to Second Language (L2), and this system is called interlanguage (IL) (Khasinah, 2014). Similarly, knowing an L2 means that individuals know information similar to that of the mother tongue.

In light of the definitions mentioned above, it can be said that all these definitions focus on SLA after the establishment of L1. It is noted that there is a connection between the acquisition of L1 and L2. According to Lado (1957, p.2), "Individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their first language and culture to the target language and culture."

It has been attested that many factors influence SLA, such as age, intelligence, motivation, and personality (Khasinah, 2014). One of the most significant factors affecting L2 is the first language, L1, meaning that language transfer occurs during the acquisition of L2, and speakers tend to transfer L1 knowledge to L2 (Sun, 2019).

Odlin (1989, p.27) posits that “transfer is the result of the influences stemming from both the similarities and differences between one's first language and L2 as well as any previously acquired languages”. Cross-linguistic influence includes two types: positive and negative transfer. Positive transfer results from similarities between two languages, and negative transfer results from differences between L1 and L2 in contrast (Riepl, 2015).

Arabic stands as one of the most globally spoken languages. It holds a significant international status, being classified among the Semitic languages and serving as the language of Islam and the Quran (Tanjung, 2015). Moreover, Arabic encompasses numerous distinct dialects (Huthaily, 2003). Comprising 28 letters, the Arabic alphabet exclusively represents consonants and long vowels, while diacritics indicate short vowels. In practice, these diacritics are infrequently employed in writing, as native speakers typically discern the intended word through context and their familiarity with the language (Huthaily, 2003).

On the other hand, English belongs to the family of West Germanic languages within the broader Indo-European language family and is spoken worldwide. Moreover, English comprises several regional dialects, including American English, British English, and Canadian English (Huthaily, 2003). English alphabet is composed of 26 letters, yet it is used to represent 44 distinct sounds, comprising 24 consonants and 20 vowels (Ashour, 2017).

Similarly, one of the world's most spoken languages is Spanish. Spanish is an international language spoken in 21 countries worldwide. Spanish is an Indo-European language family and consists of 27 letters (22 consonants and five vowels). Regarding numerical expression, Spanish distinguishes between singular and plural forms. The singular form remains unaltered, while the plural form is created by appending an S to the noun's root, including determiners and adjectives. Pronouns are also subject to agreement in terms of gender and number, aligning with the noun that initiates the agreement (Johansson, 2018).

Finally, one could say that learners of a second language commit errors at all language levels, particularly syntactic, semantic, and phonology, due to differences between L1 and L2 in the level of semantic and syntactic systems, they are influenced by their L1 structure without recognition the differences among the systems of L2 (Othman, 2017). In light of the above discussion, the present study investigates the influence of English and Spanish as the first language on the syntactic and semantic acquisition of Arabic.

Several previous studies have concentrated on learning Arabic by English and Spanish learners in Jordan. However, the current study sets itself apart from its predecessors. Its uniqueness lies in both its study sample and its design. It is a descriptive quantitative study that involves collecting measurable data, which will be subjected to statistical analysis of the study's chosen sample.

This study is expected to provide valuable insights for researchers in various domains, such as textbook development, pedagogical approaches, training programs, and learning tactics. The researcher's primary objective is to explore the most prominent instances of syntactic and semantic interference in the language production of English and Spanish speakers of Arabic. The study underscores the substantial challenge that the acquisition of Arabic as L2 presents for individuals.

2. Objective of the Study

The primary objectives of the current study are as follows:

- Investigating the most salient syntactic and semantic L1 interference errors in the written production of English speakers of Arabic.
- Investigating the most salient syntactic and semantic L1 interference errors in the written production of Spanish speakers of Arabic.

3. Literature Review

One of the efforts to investigate SLA was made by Torrijos (2009). This study aims to illustrate the importance of L1 in the written production of L2 and examine errors made by Spanish learners of English in the semantic field. The study sample is composed of Spanish native speakers who learn English as L2 and English native speakers who learn Spanish as L2. The researcher employs a contrastive analysis between Spanish and English to understand L1 interference in the written production of the language. The findings show that transfer is a crucial area and occurs at semantic levels. By analyzing 150 compositions of Spanish speakers who learn English, semantic errors account for 10 % of the percentage; for example, Spanish learners of English make some errors in using the correct verbs (do) and (make). On the other hand, semantic errors made by English speakers who learn Spanish account for 5%, for example, English learners of Spanish make semantic errors as a result of differences between both languages in using Spanish verbs (ser) and (estar), which have similar meanings to the English verb (am). The study concludes that many factors influence second language acquisition, such as L1 transfer, proficiency of L2, and social factors.

Similarly, Riepl (2015) investigates how the first language influences second language acquisition between German and English at semantic and phonological levels. The researcher employs a quantitative method. Students of the third and seventh grades of a

secondary school (AHS) are tested on their Netspeak program, which is used in German contexts based on a student questionnaire. Concerning phonology level, the results depict that German learners of English transfer two sounds that do not appear in German, such as *th* (they) and *æ* (apple), and some sounds that do appear in the German language but have different pronunciations in English, such as *v* in the German word *Vase* and (very) [veri] in English. On the other hand, based on the lexical transfer, the results depict that the main errors made by German learners of English are word order, and the learners face problems in selecting the propitiate prepositions, such as using (for) instead of (of). The results illustrate more lexical transfer in written work than in speaking.

Rajab, Darus, and Aladdin (2016) investigate semantic errors in the writing of Libyan English learners. The study sample is composed of 25 essays written by Libyan students. The researchers focus on five semantic error types: misinformation, lexical choice, collocation, mis-selection, and lexico-grammatical choice. The findings illustrate that most semantic errors are misinformation, accounting for 46.7% of errors, followed by lexical choice errors, scoring 40.6%; collocations errors, accounting for 7.1%; mis-selection errors, accounting for 3.02%; and the lowest proportion of errors is lexico-grammatical choice errors with 2.4%.

Almahameed and Al-Shaikhli (2017) investigate syntactic and semantic errors in the composition writing of Jordanian students, specifically English international students in Jordan. The study sample comprises 30 Jordanian English foreign language students who are asked to compose essays of no more than 150 words on selected topics. These essays are collected and subjected to statistical analysis to achieve the intended research findings. Concerning syntactic errors, most syntactic errors occur with Verb-tense accounting for 33%. Agreement errors account for 28%, errors due to auxiliary accounting for 10%, errors caused by choice of conjunctions account for 7%, word order errors account for 6%, pronoun errors 6%, Null-subject errors account for 5%, double subject errors account for 3%, superlative errors account for 1%, and the lowest proportion of errors are possessive pronouns and comparative errors with 0.5% percentage. On the other hand, in terms of semantic level, the highest proportion of errors is at the word level, accounting for 82 %, and the lowest proportion of errors is at the sentence level, accounting for 18%.

In line with research investigating cross-linguistic influence, Lghzeel and Raha (2020) examine Arabic interference in English passive voice. This study employs a quantitative method and aims to investigate the negative influence of Arabic as L1 on using English passive voice. It examines the proportion of interlingual and intralingual errors. The sample of this study includes 46 Arab EFL students at the University of Malaysia Pahang, engaged in the task of responding to a grammar test. The findings demonstrate that Arab learners of English have a high percentage of L1 interference in English passive voice. Concerning interlingual errors, the proportion of interlingual errors accounts for 89.1% in the first exercise and account for 95.6% in the second exercise; on the other hand, intralingual errors account for 67.3% in the first exercise and accounting for 52.1% in the second exercise. To conclude, these results illustrate that most errors are based interlingual.

An additional study conducted by Vâlcea (2020) investigated grammar translation errors made by Romanian learners of English. Learners are asked to translate text from Romania into English. The findings illustrate that errors made by learners are mainly based on their L1, which is due to the differences between Romanian and English. Regarding translation from Romanian into English, the results demonstrate that Romanian students transfer structures from their L1 into L2.

In a similar context, Youssef (2022) conducts syntactic and semantic contrastive analysis between Arabic and English at the present tense level. This study aims to facilitate translation from Arabic into English and assist learners in avoiding interference between Arabic and English at present verb levels. The study discusses contrastive analysis, semantic analysis, and present tense aspects. The findings depict that both English and Arabic have the same use of the present tense verb to express usual actions and facts, such as (The sun rises in the morning *تنشرق الشمس في الصباح*) as a fact, and (Play, *يلعب*) as a present action. In terms of the syntactic system, in Arabic, there are singular, dual, and plural, so verbs in Arabic have an agreement with number and gender, for example (*هم يلعبون*) (هم يلعبان) (*هي تلعب*، *هما يلعبان*), but in English, this agreement does not occur. Only the third person singular in English is marked by *-s* in the present tense. For example (He plays, they play).

Based on the reviewed literature, it could be said that previous studies have some limitations. Concerning studies employing contrastive analysis between L1 - L2, most of these studies compare Arabic and English, such as (Rajab et al., 2016), or compare only Spanish and English, such as (Torrijos,2009). This study compares three languages: Arabic, English, and Spanish. In some of these previous studies, the sample comprises one institute, which limits the ability to generalize the results (Lghzeel & Raha, 2020). Additionally, other studies discuss only one type of tense verb and ignore other types such as (Youssef, 2022). The present study is distinguished by its objectives as it studies the role of English and Spanish as a first language in acquiring Arabic at the syntactic and semantic levels. In addition, the current study's sample is composed of more than one institute, which enhances the ability to generalize the results.

Other previous studies, such as (Riepl, 2015), investigate how the first language influences second language acquisition at semantic and phonological levels among German and English speakers. The current study examines cross-linguistic interference in the

syntactic and semantic acquisition of the Arabic language, focusing on Arabic, English, and Spanish. The study also includes English and Spanish speakers of Arabic who are not included in previous studies.

4. Methodology

4.1 Resources

The sample of the study consists of 20 English speakers of Arabic and 10 Spanish speakers of Arabic in Jordan who are enrolled in the Language Center/University of Jordan, IFPO Amman Institute, and Qasid Center/Amman. An essay-writing test is employed to collect the required data for the present study. All participants are tasked with writing an essay in Arabic about a special event they celebrated. The allocated time of the test is 60 minutes, within which all participants are expected to complete their test. The question is: "Write about an important event or a special event you celebrated (150 words)".

4.2 Procedures

This study adopts both CA and EA hypotheses to investigate the role of the first language in the syntactic and semantic acquisition of Arabic as a second language. Based on CA, the researcher compares the differences and similarities among Arabic, English, and Spanish at syntactic and semantic levels in order to distinguish error types by reviewing previous studies conducted by researchers on comparison among three languages, Arabic, English, and Spanish at syntactic and semantic levels, e.g. (Torrijos,2009; Almahameed & Al-Shaikhli,2017; & Bardel, 2015).

Based on EA, the researcher applies the following procedure to analyze errors (Troike, 2012)

- 1- Data collection: Gathering required data for the study. An essay writing test is used to collect the data for the present study. All participants are asked to write an essay in Arabic about a special event they celebrated.
- 2- Errors identification: Underlining and determining errors in the written essay to divide errors into two main types: Syntactic or Semantic errors.
- 3-Errors Description: Classifying errors, whether syntactic or semantic, and following that, dividing syntactic and semantic errors into sub-types.
- 4- Errors explanation: Determining why errors are made to realize the SLA process.

The present study employs quantitative methods to gain insight into cross-linguistic interference in acquiring the Arabic language. According to Kothari (2004, p.3), quantitative research is based on quantity measurement; it is related to phenomena that can be expressed in terms of amount. The statistical descriptive analysis is employed to illustrate the main source of errors made by English and Spanish speakers of Arabic at syntactic and semantic levels.

5. Results and Discussion

5.1 Results related to research question one

This section reveals the answers to research question one:

Research question one: *What are the most salient syntactic and semantic L1 interference errors in the production of English speakers of Arabic?*

In order to answer question one, the English participants are asked to write an essay in Arabic about a special event they celebrated. The findings of question one illustrate frequencies and percentages of syntactic and semantics errors made by English speakers of Arabic.

Table 2: Classification of errors in written essays made by English speakers of Arabic.

Items	Frequency	Percentage
Disordering	2	1.3 %
Substitution	45	29.8 %
Omission	76	50.3 %
Addition	28	18.5 %
Total	151	100%

As demonstrated in Table 2 above, omission errors are the largest among all types of errors, scoring 50.3%. Substitution errors ranked second, accounting for 29.8 % of the total percentage of errors. Addition errors ranked third, accounting for 18.5 % of the total percentage of errors. Moreover, Table 2 demonstrates that disordering errors are much less than the three mentioned types of errors, accounting for only 1.3 %. The high occurrence of omission errors might be ascribed to the difference between the syntactic systems of Arabic and English and the difficulty of the Arabic language system.

Table 3: Distribution of L1 transfer and intralingual errors made by English Speakers of Arabic at syntactic level.

Source	Frequency	Percentage
L1 transfer	68	45%
Intralingual	83	55 %
Total	151	100%

Table 3 illustrates that most errors at the syntactic level are intralingual errors, accounting for 55 %, while L1 transfer errors account for 45 %.

The following examples illustrate L1 transfer and intralingual errors made by English speakers of Arabic at the syntactic level in essay writing tests:

1)* كبيرة طوابق (big floors)

* Kanat Tawabq Kabira.

From sentence one mentioned above, the error is related to word order. English speakers of Arabic misplace the noun (طوابق) and adjective (كبيرة). The correct form is (كانت طوابق كبيرة). It is generally agreed that adjectives modify a noun placed before the noun in English. This type of error is related to L1 transfer due to the rules of English. Adjectives precede nouns; in Arabic, nouns precede adjectives.

2)* الكنيسة الكاثوليكية* كان الحفل (The ceremony was the Catholic Church)

* Kan Al7afloAl-kanesah Alkatholikia.

In sentence two, English Speakers of Arabic delete a preposition (في). The correct form is (كان الحفل في الكنيسة الكاثوليكية). This error is considered intralingual rather than L1 transfer because the preposition is obligatory in English and Arabic. This result supports the study result of Almahammed (2016), who argues that this type of error is related to incomplete applications of rules by creating incomplete structures of L2.

To gain an insight into the nature of syntactic errors made by English speakers of Arabic, Table 4 below demonstrates frequencies and percentages of syntactic errors for each sub-type. Errors comprise the following sub-types: word order, articles, conjunctions, pronouns, prepositions, and agreement.

Table 4: Types of syntactic errors made by English Speakers of Arabic

Item	Frequencies	Percentage
1. Word order	2	2%
2. Articles	31	33%
3. Conjunctions	12	13%
4. Pronoun	11	12%
5. Prepositions	19	20%
6. Agreement	19	20%
Total(S)	94	100 %

As demonstrated in Table 4 above, the total number of syntactic errors made by English speakers of Arabic in writing is 94 errors. The results illustrate that the highest percentage of syntactic errors is with articles accounting for 33 % and a frequency accounting for 31 errors. Additionally, it is clear from Table 4 that the lowest percentage of syntactic errors is in the usage of word order, accounting for 2%, and frequency, accounting for 2 errors. The percentage of syntactic errors with prepositions accounts for 20%, with agreement accounting for 20%, conjunctions accounting for 13%, and pronouns accounting for 2 %.

To investigate errors made by English speakers of Arabic at the semantic level, the study divides semantic errors into sub-types: 1-word level and 2-sentence level. Table 5 below demonstrates the frequencies and percentages of L1 transfer and intralingual errors made by English speakers of Arabic at the semantic level.

Table 5: Sources of L1 transfer and intralingual errors made by English Speakers of Arabic.

Source	Frequencies	Percentage
L1 transfer	23	34.85%
Intralingual	43	65.15%
Total	66	100 %

As demonstrated in Table 5 above, the results demonstrate that the total number of semantic errors made by English speakers of Arabic is 66 errors. The primary source of errors at the semantic level is interlingual errors; Table 5 above illustrates errors that occur at intralingual errors, account for 65.15%, while the percentage of L1 transfer errors account for 34.85%.

The below-mentioned examples illustrate L1 transfer and intralingual errors made by English speakers of Arabic at the semantic level:

1)* في سبتمبر من هذا العام* (In September of this year)

* Fi December Hatha Alam.

In sentence one, English speakers of Arabic use the word (سبتمبر) instead of (أيلول). This error can be ascribed to L1 transfer errors. English speakers of Arabic borrow words from L1 when learners cannot utilize L2 correspondence.

2)* ما قضيت مدة طويلة* (I didn't spend a long time)

2)*Ma Qadaito Modaaah Tawela.

In sentence two, English speakers of Arabic use negation (ما) instead of (لم). This error can be ascribed to incomplete acquisition of Arabic. These results agree with the study findings of Riepl (2015) and Ilomaki (2005), who assume that cross-linguistic interference at the semantic level occurs for numerous reasons, such as insufficient input, lack of knowledge, or knowing the general rules of the second language.

In terms of semantic errors made by English speakers of Arabic based on sub-types of errors, Table 6 below illustrates the frequency and percentage of semantic errors for each sub-type. The errors are composed of the following sub-types: 1- word level, 2- sentence level.

Table 6: Types of semantic errors made by English Speakers of Arabic.

Item	Frequencies	Percentage
1. Word level	56	84.85%
2. sentence level	10	15.15%
Total	66	100 %

The above-stated Table 6 demonstrates the types of errors made by English speakers of Arabic at the semantic level. The results illustrate that the semantic errors at the word level account for 84.85% and a frequency of 56 errors. Additionally, it is clear from Table 6 that semantic errors at the sentence level account for 15.15% and a frequency of 10 errors.

5.2 Results related to research question two

This section reveals the answers to research question two:

Research question two: *What are the most salient syntactic and semantic L1 interference errors in the production of Spanish speakers of Arabic?*

To answer question two, the Spanish participants are asked to write an essay in Arabic about a special event they celebrated. The findings of research question two illustrate the frequency and percentage of syntactic and semantic errors made by Spanish speakers of Arabic.

Table 7: Classification of errors in written essays made by Spanish Speakers of Arabic.

Items	Frequency	Percentage
Disordering	0	0%
Substitution	36	41.9%

Omission	32	37.2%
Addition	18	20.9%
Total	86	100%

As demonstrated in Table 7 above, substitution errors are the largest among all types of errors, scoring 41.9%. Omission errors ranked second, accounting for 37.2% of the total percentage of errors. Addition errors ranked third, accounting for 20.9% of the total percentage of errors. Moreover, Table 7 depicts that Spanish speakers of Arabic do not make any disordering errors. The high occurrence of substitution errors might be ascribed to the difference between the syntactic systems of Arabic and English and the difficulty of the Arabic language system.

Table 8: Distribution of L1 transfer and intralingual errors made by Spanish speakers of Arabic.

Source	Frequencies	Percentage
L1 transfer	19	22.1 %
Intralingual errors	67	77.9 %
Total	86	100 %

As demonstrated in Table 8 above, the results depict that the total of syntactic errors made by Spanish speakers of Arabic is 86 errors. Table 8 above depicts that the primary source of syntactic errors is intralingual errors, accounting for 77.9 %, while L1 transfer errors account for 22.1 %.

The following samples of participants' writing illustrate L1 transfer and intralingual errors made by Spanish speakers of Arabic at the syntactic level.

1)* أعتقد أن من مهم (I think it is essential)

* A3taqedo Ana men Mohem.

In sentence one mentioned above, Spanish speakers of Arabic delete the necessary Article (ال); the correct form is (المهم). The effect of Spanish is noticeable; in Arabic, it is obligatory to use Article in this case; otherwise, in Spanish, speakers do not use Article in this case, e.g. (Creo que es necesario), which means in English (I think it is essential).

2)* احتفلنا بعيد الهالوين لبعضنا (We celebrated Halloween together)

* Ehtafalna be Eid Al Helawawen le Ba3dana.

In sentence two; Spanish speakers of Arabic add the preposition (ل) instead of (مع). This type of error reflects mere ignorance of the correct usage of prepositions. The correct form is (احتفلنا بعيد الهالوين مع بعضنا). These errors can be ascribed to intralingual errors.

To gain an insight into the nature of syntactic errors made by Spanish Speakers of Arabic. Table 9 below demonstrates frequencies and percentages of syntactic errors for each sub-type. Errors comprise the following sub-types: word order, articles, conjunctions, pronouns, prepositions, and agreement.

Table 9: Types of syntactic errors made by Spanish speakers of Arabic

Item	Frequencies	Percentage
1. Word order	0	0 %
2. Articles	15	45%
3. Conjunctions	2	6%
4. Pronoun	5	15%
5. Prepositions	4	12%
6. Agreement	7	21%
Total(S)	33	100%

As demonstrated in Table 9 above, the total number of syntactic errors made by Spanish speakers of Arabic in writing Arabic is 33 errors. The results illustrate the highest percentage of syntactic errors, with articles accounting for 45 % and a frequency of 15. Additionally, it is clear from Table 9 that the lowest percentage of syntactic errors is in the usage of word order, with a percentage of 0% and a frequency of 0 errors. The percentage of syntactic errors with agreement accounts for 21 %, with pronouns accounting for 15%, with prepositions accounting for 12%, and conjunctions accounting for 6%.

To investigate the errors made by Spanish speakers of Arabic, the study divides semantic errors into sub-types: 1-word level, 2-Sentence level.

Table 10 below demonstrates the frequencies and percentages of L1 transfer and intralingual errors made by Spanish speakers of Arabic at the semantic level.

Table 10: Sources of L1 transfer and intralingual errors made by Spanish speakers of Arabic at the semantic level.

Source	Frequencies	Percentage
L1 transfer	4	14.3 %
Intralingual	24	85.7%
Total	28	100 %

The above stated Table 10 depicts that the total number of semantic errors made by Spanish foreign students is 28 errors. Intralingual interference is the primary source of errors at the semantic level, accounting for 85.7%, while L1 transfer errors score 14.3 %.

The below-mentioned examples illustrate L1 transfer and intralingual errors made by Spanish speakers of Arabic at the semantic level in essay writing tests.

1)* سافرت إلى برازيل (I traveled to Brazil)

* Safarto Ela Albrazil.

In sentence one, Spanish speakers of Arabic use the word (برازيل) instead of (البرازيل). This error can be ascribed to L1 transfer errors. Spanish speakers of Arabic borrow words from L1 when learners cannot utilize L2 correspondence.

2)* كان عمري 15 سنة ولم أكن ناضجة البال (I was 15 years old and not mentally mature)

*Kan Omri 15 Sanah w lam akoun nadejata al-bal.

In sentence two mentioned above, Spanish speakers of Arabic use the word (البال) instead of (العقل). This error can be ascribed to intralingual errors.

In terms of semantic errors made by Spanish speakers of Arabic based on sub-types of errors, Table 11 below depicts the frequency and percentage of semantic errors for each sub-type. The errors comprise the following sub-types: 1- word level 2- sentence level.

Table 11: Types of semantic errors made by Spanish Speakers of Arabic.

Item	Frequencies	Percentage
1. Word level	23	82.14%
2. sentence level	5	17.86%
Total	28	100%

The above-stated Table 11 demonstrates the types of errors made by Spanish Speakers of Arabic at the semantic level. The results illustrate that semantic errors at the word level account for 82.14% and a frequency of 23 errors. Additionally, it is clear from Table 11 that semantic errors at the sentence level account for 17.86% and a frequency of 5 errors

6. Conclusion

The present study aims to investigate cross-linguistic interference in the syntactic and semantic acquisition of Arabic. This study raises two research questions:

- 1- What are the most salient syntactic and semantic L1 interference errors in the written production of English speakers of Arabic?
- 2- What are the most salient syntactic and semantic L1 interference errors in the written production of Spanish speakers of Arabic?

This study adopts both CA and EA hypotheses to investigate the role of the first language in the syntactic and semantic acquisition of Arabic as a second language. Based on CA, the researcher compares the differences and similarities among Arabic, English, and

Spanish at syntactic and semantic levels in order to distinguish error types by reviewing previous studies conducted by researchers on comparison among three languages, Arabic, English, and Spanish at syntactic and semantic levels, e.g. (Torrijos,2009; Almahameed & Al-Shaikhli,2017; & Bardel, 2015). Moreover, EA is used to examine errors made by English and Spanish speakers of Arabic to define the source of errors, whether interlingual or intralingual interference, and then classify these errors into two

The analysis of data reveals the following main findings: L1 transfer errors made by English and Spanish speakers of Arabic at the syntactic level account for 45% and 22.1%, respectively, while the percentage of intralingual errors made by English and Spanish speakers of Arabic at syntactic level account for 55%, and 77.9% respectively. On the other hand, the findings demonstrate that the percentage of L1 transfer errors made by English and Spanish speakers of Arabic at the semantic level are 34.85% and 14.3%, respectively, while the total percentage of intralingual errors made by English and Spanish speakers of Arabic at semantic level account for 65.15%, and 85.7 % respectively. The primary source of errors made by English and Spanish speakers of Arabic at both syntactic and semantic levels is intralingual interference.

The study sample is limited to 20 English and 10 Spanish speakers of Arabic in Jordan during the academic year 2023/2024. This research does not rely on a specific gender. The sample age is between 20-60 years old. The study sample is proportional to the study population. For this reason, English participants are 20 speakers, while Spanish participants are only 10 speakers.

Based on the findings of the study , English and Spanish Speakers of Arabic as a second language are advised to review Arabic language resources and materials to enhance their knowledge when acquiring Arabic as a second language, such as Arabic dictionaries, grammar books, Arabic culture books, TV, radio, and newspapers. These resources can help learners to understand how to learn and practice Arabic. Additionally, English and Spanish speakers of Arabic can practice Arabic with native speakers in the language's environment. Moreover, teachers of Arabic as a second language are responsible for demonstrating the differences between L1 and L2 by giving enough examples in both languages. In addition, they are advised to explain the functions of prepositions, conjunctions, and articles in both L1 and L2 and how they are used differently. Furthermore, it is beneficial to connect language and culture to enhance the understanding of word meaning and use words and idioms correctly within context.

Future studies are suggested to expand to investigate different L1 backgrounds to observe whether source errors are similar across different languages. The current study is restricted to syntactic and semantic systems. Further studies can investigate errors made at the phonological level. The current study employs a quantitative method using an essay-writing test to investigate errors made by English and Spanish Speakers of Arabic. Other studies can employ fill-in-blank tests, questionnaires, or multiple choice. Therefore, future studies can combine multiple instruments or quantitative and qualitative methods.

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