CHAPTER FOUR

DATA ANALYSIS

4.0   Introduction

This chapter contains the findings regarding the investigation on the borrowing of English words into the Iraqi Arabic dialect. As mentioned in Chapter Three, the data consists of two parts, the first part contains 58 English loanwords obtained through a picture naming exercise and the second contains 148 English loanwords in addition to the 58 mentioned above. The first group of words was analyzed based on Haugen's theory on oral borrowing (1953, as cited in Heah, 1989). They were first categorized into two groups: assimilated English loanwords and partially or /and non-assimilated loanwords.

The words from the second part of the data were categorized into groups depending on whether they were imported from the English language or borrowed as substitutes for the original words. The data was also categorized according to their semantic characteristics. Finally this chapter will discuss the reasons English words were borrowed into the Iraqi Arabic dialect as indicated by the participants and the consequences of borrowings on colloquial Arabic particularly the Iraqi Arabic dialect.

4.1   Analysis of the data: The picture cards

As already mentioned the first portion of the data consists of 58 words recorded from the participants in a picture naming exercise. The words were then categorized as either assimilated or non/partially assimilated loanwords. Based on the analysis, 40% of the words represent assimilated words. There are two possible explanations for the production of these words in their original English sounds by the Iraqi speakers. One is either because the sounds have equivalents in the Iraqi Arabic dialect (for example the words *scarf* and *jeans)* or the Iraqi Arabic dialect have adopted some sounds from English such as */p/* in *passport* and */ŋ/* in *sink*. This illustrates the impact of the English language on the Iraqi Arabic phonological system in terms of adaptation of new sounds. The second explanation is that the Iraqi speakers might be the awareness of the origin of the word as an English loanword thus they produce them as they are produced in English.

It is necessary to note that generally, all the words discussed so far are those words that all the participants are familiar with and are commonly used in Iraqi Arabic dialect, whether these words are assimilated or not. Although some of the mentioned English loanwords do have equivalents in Arabic, they are more commonly used in the loan form compared to their equivalents. This observation was confirmed by the Iraqi speakers themselves when they chose the English form in the naming session carried out during the recording.

4.1.1 Assimilated loanwords

An English loanword is categorized as assimilated when the word is adopted by Iraqi speakers as it is pronounced in its original English form. In other words when English sounds have one to one correlation with Arabic sounds then the English loanword will be assimilated into the Iraqi Arabic dialect. Thus the use of such words in everyday language will not sound strange to the ear of the Iraqi Arabic speakers because they are familiar with the sounds in their own dialect. From the analysis of the data it was found that 28% of the loanwords under this group were assimilated into the Iraqi Arabic dialect.

Table 4.1 lists some English loanwords which have been assimilated into the Iraqi Arabic dialect with the transcription of the word as produced by Iraqi Arabic speakers.

Table 4.1: Assimilated loanwords

English loanword	Loanword transcription in Arabic	Production of loanwords by Iraqis
Sink	سنك	/sink/
Freezer	فريزير	/fri:zə /
Loaf	لوف	/louf/
Corner	كورنر	/koənə/
Key- board	كي بورد	/ki:/ - /bourd/
Camera	كاميرا	/kamərə/
Blanket	بلانكيث	/blaeŋkit/
Stool	ستول	/Stu:l/
Baby	ببي	/beibi/
File	فايل	/fail/
Scarf	سكارف	/skaf/
Jeans	جينز	/dʒi:nz/
T- shirt	تي‑شيرت	/ti-ʃ3t/
Short	شورت	/ʃo:t/
Strawberry	ستروبيري	/stro:bəri/
Ice cream	ايس كريم	/ais-kri:m/

Another group of the assimilated English loanwords, the ones assimilated with their sounds although they are unfamiliar to Arabic phonology, will be discussed in the following section.

4.1.2 The influence of English on Arabic phonology

Further analysis of the assimilated words revealed that there are some words which have been assimilated into the Iraqi Arabic dialect together with the sounds which are new or foreign to the pronunciation in Iraqi dialect. Such words represent 17% of the total group of 58 loanwords. A group of the assimilated words comprised English consonant sounds which do not have equivalents in Arabic phonology. The */p/* and */ ŋ/* are examples of such sounds as illustrated in Table 4.2.

Table 4.2: Examples of English loanwords with no Arabic phonological equivalents.

English Phonological sound	Words
/p/	Computer, passport, postcard, Grapefruit, fireplace, powder
/ŋ/	Sink
/ei/	Nescafe
/ou/	Remote
/au/-/ə/	Shower

There are situations in which Iraqi Arabic speakers adopted some sounds from English and mix the English sound with the Arabic sound such as the mixing of */ b/* and */p/* in the word biscuit */biskit/*. This word is sometimes produced with the substitution of the sound */b/* with the English sound /p/ which is opposite to what is expected from Iraqi speakers because the sound */p/* does not exist in Arabic.

Of the list of 58 loanwords, 59% were partially assimilated in terms of phonological production. These English loanwords words were produced by Iraqi speakers with substitution, omission or addition of one sound or group of sounds as mentioned in the analysis of the loanwords. In the case of substitution some English sounds were substituted by Arabic sounds and the borrowed words could be distinguished by English speakers as English origin words. In other cases, English sounds were omitted or new sounds were added to the original English loanword and the reproduced English loanwords might not be distinguished by English speakers as of English origin as discussed previously in this chapter. In other words, all English loanwords under this section were reproduced with some Arabic sounds which make them emerge into the Iraqi Arabic dialect as if they are Arabic origin words.

4.1.3 Non-assimilated and partially assimilated loanwords

Partially assimilated English loanwords are produced with the partial substitution of a sound. This sound might be either a consonant or a vowel. Mostly, vowel sound substitutions are due to the influence of the Arabic signs – *fatha , dama* and *kasra*. The substitution of vowel sounds in English loanwords as produced by the Iraqi Arabic speakers is illustrated in Table 4.3. It was noted that 19% of the English loanwords (58) were borrowed with the substitution or submission of part of the original word.

Table 4.3: English loanwords with vowel substitution

Loanword	English Transcription	Description/Arabic production
Blanket	/blaenkit/	This word is produced by Iraqi speakers with the substitution of the vowel sound /i/ with /ei/ -- **/blaenkeit/**
Blouse	/blauz/	This word is produced by Iraqi speakers with the substitution of the diphthong /au/ with /u:/ -- **/blu:z/**
Cabinet	/kaebinit/	This word is produced by Iraqi speakers with substitution of the vowel sound /i/ with long /i:/ and the sound /i/ after /n/ is substituted by /a/ . Beside the substitution of the vowels in this word, the Iraqi speakers omit the sound /t/ in producing this loanword -- **/kaebi:nat/.**
Carbon	/ka:bən/	In this word the Iraqi speakers substitute the vowel sound /ə/ with the diphthong sound /ou/-- **/ka:boun/**
Cup	/k ʌp/:	The Iraqi speakers produce this word with the substitution of the sound /ʌ/ with the long sound /u:/ -- **/ku:p/.**
Radio	/reidiou/:	This loanword is produced by the Iraqi speakers with the substitution of the sound /ei/ with /a:/-- **/ra:diou/.**
Racket	/raekit/:	this word is produced by Iraqi speakers with the substitution of the sound /ae/ with the sound /i/ -- **/rikit/.**
Mango	/maengou/	This word is produced by Iraqi Arabic speakers with the substitution of the sound /ou/ with the sound /ə/-- **/maengə/.**
Sugar	/ʃugə/	This word is produced with the substitution of the sound /u/ with the sound /ə/ and the sound /g/ with the sound /k/-- **/ʃəkə/.**
Telephone	/teləfəun/	This word is produced by Iraqi Arabic speakers by the substitution of the vowel sound /əu/ with /o/ -- **/teləfon/**
Toilet	/toilit/	The Iraqi speakers substituted the vowel sound /i/ with /ei/ in their production for this loanword -- **/toileit/**

4.1.4 English loanwords with consonant substitution

Consonant sound substitution can be due to mother tongue influences such as the vowel situation or the foreignness of the sound to Arabic speakers. As a result, the sound will be substituted by an Arabic sound. Such substitutions are illustrated in Table 4.4.

Table 4.4: English loanwords with consonant substitution

Loanword	English transcription	Arabic	Description/ Arabic production
Computer	/kəmpjutə/	كومبيوتر	This loanword is produced by Iraqi speakers with the substitution of the sound /p/ with /b/-- /kəmbjutə/
Cup	/k ʌp/	كوب	This loanword is produced by Iraqi speakers with the substitution of the sound /ʌ/ with the sound /u:/-- /ku:p/
Glass	/glaes/	كلاس	This loanword is produced by Iraqi speakers with the substitution of the sound /g/ with /k/-- /klaes/
Grape fruit	/greip/	كريب فروت	Part of this loanword which is "grape" is produced with the substitution of the sound /p/ with /b/ -- /greib/
Jug	/d3 ʌg/	جك	This loanword is produced by Iraqi speakers with the substitution of the sound /g/ with the sound /k/. -- /d3u:k/
Kettle	/ketl/	كتلي	This loanword is produced by Iraqi speakers with the substitution of dark /l/ with light /l/ as well as /e/ with /i/ and the addition of sound /i:/ at the end of the word-- /kiti:l/.
Remote	/rimout/	ريموت	This loanword is produced by Iraqi speakers with the substitution of the sound /ou/ with the sound /o:/ -- /rimo:t/.
Sandal	/saendal/	صندل	This loanword is produced by Iraqi speakers with the substitution of the sound /s/ with the Arabic sound /ş/ -- /şaendal/
Sausage	/sosid3/	صوصج	This loanword is produced by Iraqi speakers with the substitution of the sound /i/ with the sound /a/ and second sound /s/ with/ş/ -- /soşad3/
Pyjama	/pəd3a:ma/	بجامة	This loanword is produced by Iraqi speakers with the substitution of the sound /p/ with the sound /b/ -- /bəd3a:ma/
Powder	/paudə/	باودر	This loanword sometimes is produced by Iraqi speakers with the substitution of the sound /p/ with the sound /b/ -- /baudə/

Out of the 58 loanwords discussed above, only 7 (12%) were non-assimilated English loanwords. These are words which were produced by the Iraqi speakers totally differently from the original English word, as illustrated in Table 4.5.

Table 4.5: Non-assimilated English loanwords

English loanword	English transcription	Loanword transcription in Iraqi Arabic production
Coat	/kout/	/qapu:t/
Cigarette	/sigəret/	/dʒigarə/
Mirror	/mirə/	/mraya/
Cushion	/kuʃən/	/kauʃa/
Lamp	/laemp/	/lempa/
Sponge	/sp ʌndʒ/	/isfəndʒa/
Table	/teibl/	/tabla/

4.2 Analysis of the data obtained from the questionnaire

Three types of data were obtained from the words listed in the questionnaire. The data obtained were based on the participants' responses to the tasks set in the questionnaire that contains 148 English loanwords. The data comprised:

1. Existence or non existence of the words listed in the questionnaire in the Iraqi Arabic dialect.

2. Respondents' ability to give the Arabic equivalent to the words listed

3. Respondents' preference to use the English loanword or its Arabic equivalent.

The three types of the data were obtained based on the responses of fourteen Iraqi speakers. These speakers' profiles vary in terms of age, sex and educational level. In analyzing the responses from each participant, the age and educational level were taken into consideration. Detailed information on each participant has been outlined in Appendix 1.

4.2.1 Existence of the given words in the Iraqi Arabic dialect

Confirmation of the existence of the given words as English loanwords in the Iraqi Arabic dialect are obtained from Column (1) of the questionnaire in which participants were asked to confirm the existence of the words listed in the questionnaire by choosing one of the marks given. This column yields three types of responses manifested with (√), (×), or (o) as follows:

1. (√) indicates the existence of the words as English loanwords in the Iraqi speakers' Arabic dialect
2. (×) indicates the opposite; it is used to eliminate the word from being used in the Iraqi Arabic dialect.
3. (o) is used when participants do not use the words but heard other Iraqis using them in their everyday dialect.

All participants responded to this column and hence there is no gap in the data. The responses in terms of number of the words marked (√), (×), or (o) for each participant is calculated. The overall descriptive statistics for these responses in percentage are as illustrated in Table 4.6.

Table 4.6: Existence of English loanwords in Iraqi dialect

Response type	Response in percentage
1. (√)	85%
2. (×)	6%
3. (o)	9%

As can be seen in Table 4.6, the analysis revealed an overwhelming number (85%) of the 148 loanwords obtained (√) response which indicates the participants' agreement to the existence of these words as English loanwords in the Iraqi Arabic dialect. Only a small percentage (9%) received (o) response which indicates the usage of words in Iraqi community but not by the participant him/herself and an even smaller percentage (6%) had (×) which means these words do not exist in the Iraqi Arabic dialect. From the high percentage of (√) it is concluded that these words are widely used by Iraqis in their Iraqi Arabic dialect.

4.2.2 Ability to give equivalent in Arabic

In Column (3) of the questionnaire, the participants were required to provide an equivalent Arabic word for every English loanword included in the list. This column yielded the lowest number of responses when compared to Columns (2) and (4) in the questionnaire. The overall data obtained from this column is as follows (calculated using the formula:

$$\frac{\textit{Number of responses X 100\%}}{\textit{Number of total loanwords (148)}}$$

1. Total number of English loanwords with responses for all participants is 1222 which represents (59%) of the total number of words (2072).

2. Total number of English loanwords with no response for all participants is 850 which represents (41%) of the total number of words (2072).

In terms of supplying Arabic equivalent word, the data obtained from this column reveals that 59% of the English loanwords were confirmed as either existing or non-existing by the participants while 41% of the English loanwords did not get any response.

The 59% of the English loanwords derived were further categorized into words with appropriate equivalent and words with inappropriate equivalent; 22% equivalents provided by the participants were inappropriate in terms of meaning for example the equivalent meaning for *ping pong* was provided as *table* and for *model* was *magazine* or sometimes because they were the production of the same English loanword with Arabic transcription such as the words *cancel* and *bank*. In most cases, although participants were able to provide appropriate equivalent to the given English loanwords, they prefer to use the English loanword more than its equivalent in Arabic.

Analysis of the information obtained from this column also reveals that just 7 of the participants were able to provide appropriate equivalents in Arabic for the given list of English loanwords. As can be seen in Table 4.7, the high percentage was given to the words that have no equivalent in Arabic. The low percentage of 23% was given to the words with appropriate equivalent in Arabic. Thus the overall responses in terms of percentages are as follows:

Table 4.7: Ability to provide Arabic equivalents

English loanwords with appropriate equivalent	(23%)
English loanwords with no equivalent	(41%)

The final percentage of the words with no equivalent is therefore 63% [41% + 22% (of inappropriate equivalents)] of the given list of English loanwords. Thus the higher percentage is given to the English loanwords with no equivalent in Arabic and the low percentage of 23% is given to the English loanwords with equivalent in Arabic.

Additionally, to find out whether the age of the participants have any affect on their ability to give Arabic equivalent or not, the data obtained from this column was analyzed with regards to the age of the participants as other studies (such as Mustafawi, 2002 and Al-Saqqaf, 2006) had not taken this factor into consideration. By taking the age factor into consideration, the participants were divided into two groups. The first group comprised participants within the age range of 13-19 years and the second group comprised those within the age range of 33-56 years. The responses in terms of percentage and age are illustrated in Table 4.8.

Table 4.8: Age based classification of participants' ability to provide Arabic equivalent.

Age group	Ability to Give Arabic equivalent	Appropriate response	Inappropriate response
Group 1	34%	14%	67%
Group 2	71%	39%	34%

As can be seen in Table 4.8, the percentage (71%) of responses representing the ability of the second group to give equivalent in Arabic for the given English loanwords is far more than that representing the ability of the first group. This

gives the indication that elder people are more capable in providing equivalents in Arabic for the English loanwords and that the participants within the elder group are more proficient in Arabic than the participants in the younger group.

The responses of the two groups were further analyzed and classified into appropriate and inappropriate equivalents in terms of the word meaning. The analysis indicated that 39% of the second group responses were appropriate (25% more than the responses from the first group, with 14% of appropriate equivalents). This result asserts the fact that younger generations are not as acquainted with the loanwords as the older generations are.

The responses for this column show that the second group was unable to provide equivalents and did not give any response for 67% of the given English loanwords. This percentage was far more than the response of the second group which indicated no response for 34% of the given English loanwords. Although some of the given English loanwords do not really have equivalents in Arabic, the variance between the two groups shows that the younger generation's knowledge in Arabic is less than that of the older people, because part of this percentage represent words which do have equivalent in Arabic but the participants were unable to respond to.

The responses obtained from this column also highlighted other interesting findings. Many of the given English loanwords do not have equivalents in Arabic and in this case the participants either gave no response or they reproduced the English loanwords with Arabic transcription, for example the English loanwords in Table 4.9 where the given equivalents are indicated in Column 2.

Table 4.9: English loanwords with Arabic transcription

The English loanword	The given equivalent
Cement	*/smint/*
Ozone	*/o:zoun/*
Radar	*/raedaer/*
Watt	*/wot/*

There are many other words for example, *canary, centimeter, scooter, thermos, mascara, film, filter, gas, inch, jelly, kilo, liter, lorry, meter, potassium*, and *pound.*

Some of the responses tended to be explanations of the given English loanwords. Thus some of the given equivalents can be in Table 4.10.

Table 4.10: Arabic explanations of the given English loanwords

English loanword	Given equivalent / explanation
Quiz	Short exam
Over head projector	Over head exposure device
Lorry	Loading car
Millionaire	Very rich person
Film	Cinema tape
Cartoon	Moving pictures
Bar	Place for drinks
Cashier	Money box treasurer
Thermos	Hot or cold preservative
Manhole	Sewage reservoir
Ketchup	Tomato sauce
Overtime	Beyond the set time
Cable	Electricity conductor

Another group of responses to this column were the direct translations of the English loanwords as these are new words which had entered the language and had not existed before borrowing them from English. The equivalents for this group of English loanwords can be seen in Table 4.11.

Table 4.11: Direct translation of loanwords into Arabic

English loanword	Arabic translation	Phonetic Transcription
Blacklist	قائمة سوداء	/kae-imə saudə/ (list black)
First class	درجة أولى	/darə ʤə uːlae/ (class first)
Basketball	كرة سلة	Kurʌt səla/ (ball basket)
Eye-shadow	ظلّ العين	/dilael alʕein/ (shadow eye)
Fixed price	سعر ثابت	siʕr Өaebit (price fixed)

4.2.3. Preference to use the English loanword or its Arabic equivalent

The information regarding the participants' preference to use the English loanword or its equivalent in Arabic where there is one, is obtained from Column 3 in the questionnaire. This column is linked with Column 2 in which the participants provided the equivalent Arabic word. In responding to Column 3, the participants were asked to indicate whether they prefer to use the English loanword or its equivalent in Arabic. The overall responses in terms of percentage are tabulated in Table 4.12.

Table 4.12: Percentage of preference

English loanwords	**90%**
Arabic word	**10%**

What can be seen is that a higher percentage is observed in terms of preference for the use of the English loanwords over the use of Arabic equivalents. As mentioned before, these results can be linked with Column 2 which indicates the ability of participants to give equivalents in Arabic for each word. In the case of English loanwords which do not have equivalents, therefore they had no choice but to use loanwords. However, in many cases, although

they had earlier provided Arabic equivalents for these words, indicating they are aware of their existence, they still preferred to use the English loanwords over the Arabic equivalents.

4.2.4　Participants' opinion towards borrowing

This information is obtained by asking the participants their opinion towards borrowing based on the three options given to them. The overall responses to these three options in terms of percentage are as follows:

1. The participants use the English loanwords because there is no equivalent in Arabic: 22% of the participants indicated that they use English loanwords only when there is no equivalent.

2. The participants use the English loanwords because they like to use the English language: 64% of participants indicated that they like to use the English loanwords although there is equivalent in Arabic to some English loanwords.

3. The participants use the English loanwords because they had learned the words from their community: 14% of participants indicated that they had learned the English loanwords from other individuals in their society.

Thus the majority of the participants indicated that they like to use English which shows that they prefer to use the English loanword whether there is an Arabic equivalent or not. Only a few of the participants indicated that there is no

equivalent in Arabic which shows that they use English when they have no other choice and they like to use their own language in cases were there are Arabic equivalents. And fewer still of the participants indicated that they learn these words from others which show that these words are borrowed and had been integrated into the society to a degree that individuals are learning them from each other and over time, they have become familiar to them as if they are a part of their own language.

On the whole, analysis of the participants' opinion on the phenomena of borrowing English words into Arabic reflects their personally ideas and impressions on borrowing because as a fact all the given reasons can be suitable. The 148 given loanwords are used either because they do not have equivalents or they are familiar to the Iraqi people and they like to use them more than their own language equivalents because they are easier in terms of meaning and number of words than their Arabic equivalent or are considered more prestigious.

Furthermore, comparison between the responses of the participants to this question and the responses to Column 4 in the questionnaire in which the participants were asked to indicate which form they prefer to use, the English or the Arabic form, it is clear that the high percentage of preference to use the English form (in Column 4) match the high percentage of the preference to use English language instead of Arabic.

4.3   Semantic classification of the English loanwords

As mentioned in Chapter Three all the English loanwords included in this study were categorized into their specific semantic fields and the results for the number of words in each field are listed in Table 4.13.

Table 4.13: Semantic classification of loanwords

Word field	Number of words
Inanimate objects	59
Social and communication concepts	46
Science	24
Food and drinks	20
Electrical and mechanical objects	19
Transportations	16
Sports	9
Measurements and weigh	9
Animate	4
Total number of words	**206**

From these results it was clear that most of the English loanwords that exist in the Iraqi Arabic dialect occur under the category of inanimate objects. The next largest group comes under the social and communication category. The last category which obtained the least number of the words is the animate category (see Appendix 5: Semantic classification of English loanwords).

Categorizing the words into their specific semantic fields was done to obtain a description of the kind of English words borrowed into the Iraqi Arabic dialect. It was observed that a great number of the words were borrowed to designate new inventions or to name some scientific elements. For most of the words under these two fields, there are no Arabic equivalents. Other words that are used at home to name food, drinks and medicine and sometimes have

equivalents in Arabic but the participants still indicated their preference to use the English loanword.

4.4   Additional English loanwords

At the end of the given list of English loanwords in the questionnaire, a space was left for participants to add more English loanwords. Some of them added words which were previously included in the first part of the recording; therefore these words were not included in the list of words mentioned by the participants. Table 4.14 lists words other than those provided in the research tools.

Table 4.14: English loanwords added by participants
(According to semantic categories)

Inanimate objects	*Powder, Cream, Supermarket, Contract, Shopping centre, Message, Park*
Animate objects	*Monkey, Bodyguard, Flower, Mouse*
Electrical and mechanical objects	*Wire, Crane, Satellite, Pipe, Heater, Speakers, Video tape, Disk, Socket, Channel, Line,*
Social and communication concepts	*See you, Bye-bye, Okay, Thank you, Correct, Like, Cute, Up to date, Basic, Wish, Deal, Queue, Routine, Serious, Hello, Maroon, Typing, Beige, Conditions, Aids, Typing, Beige, Conditions, Aids*
Food and drinks	*Soup, Dish, Oven, Coffee maker*
Transportation	*Highway, Trailer, Transit, Taxi, Wheel, Lane, Handbrake*
Sports	*Penalty*

The words listed in Table 4.14 together with the loanwords included in this study provide evidence of the increasing number of English loanwords in colloquial Arabic particularly in the Iraqi Arabic dialect.

4.5   Conclusion

This chapter presents the analysis of the data obtained through two instruments designed for answering the research questions set in Chapter One. Two sets of data were analysed -- the first portion analyzes the data obtained through the recording, the second portion analyzes the data obtained through the questionnaire.

This chapter also includes the participants' opinion on the phenomena of borrowing English words into Arabic. The frequency of the words according their semantic fields was then tabulated. Finally a list of words added by the participants, which were not provided by the researcher was presented. Generally analysis of the data provided evidence that English loanwords do exist in abundance in the Iraqi Arabic dialect and that the older participants especially are becoming more aware of these borrowings. However, the pattern of language use among this set of participants indicate that despite their awareness, they often prefer using English words over the Arabic equivalents. The following chapter will summarize the findings obtained through this analysis and discuss their implications.