

**UNIVERSITY OF DIYALA**

IRAQI EFL COLLEGE STUDENTS'  
PERFORMANCE IN ENGLISH WORD  
FORMATION PROCESSES : PROBLEMS  
AND REMEDIAL WORK

**A THESIS  
SUBMITTED TO THE COUNCIL OF  
THE COLLEGE OF EDUCATION  
UNIVERSITY OF DIYALA  
IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR  
THE DEGREE OF MASTER OF EDUCATION  
IN  
METHODS OF TEACHING ENGLISH AS  
A FOREIGN LANGUAGE**

*BY*

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2007

Safar

March 1428

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

﴿﴾ وَلَمَّا بَلَغَ اَسْرَهُۥ اَنْشَاۗهُ حِمْلًا وَعِلْمًا

وَكَذٰلِكَ نَجْزِي الْمُحْسِنِ ﴿﴾

صدق اللّٰم العظیم

سورة یوسف  
الآیة ﴿ ۲۲ ﴾

*TO MY  
FATHER'S SOUL,  
GREAT MOTHER  
HUSBAND  
AND  
LITTLE DAUGHTER  
AHLLA  
WITH LOVE AND  
GRATITUDE*



We certify that this thesis entitled (**Iraqi EFL College Students' Performance in English Word formation Processes : Problems and Remedial Work**) (by **Liqaa Habeeb Aboud AL-Obaydi**) was prepared under our supervision at the University of Diyala in partial fulfilment of the requirements for the degree of Master of Education in methods of teaching English as a Foreign Language.

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**2007**

# ACKNOWLEDGEMENTS

I would like to express my sincerest gratitude to my supervisors , Dr. Ilham Namiq Al-Khalidi and Dr. Khalil Ismail Al-Hadidi . Whose patience , continuous and invaluable suggestions enabled me to carry out this work.

Thanks and gratitude are due to Asst. Prof. Dr.Salih Mehdi Salih for his valuable comments and generous help regarding the statistical procedures used in the study.

Appreciation is due to all jury members for their valuable remarks and suggestions on the test.

I am also grateful to my colleagues in the M.A. programme: Nada Mohammed and Ahmed Khalis for their help and kindness.

Finally,a special words of love and appreciation are due to my parents, my brothers: Ali, Mohammed, Daher and Aows, and my sister Alyaa, for their help , love and encouragement to carry out this work.

Needless to say , my deep thanks and gratitude to my husband Ali for his love , help and endless patience .

# **ABSTRACT**

Word-formation is a set of mechanisms used for the creation of new words. There are a number of processes that can cause the formation of a new word; these include: derivation, compounding, conversion, borrowing, clipping, blending, acronymy, back-formation, coining(invention), echoism, reduplication, antonomasia and folk etymology.

Word formation , as a general process, is a production of new meanings , innovation of new terms ,enriching the vocabulary of a language and expanding the language fundamental core and at the same time a problematic and difficult area for Iraqi students of English as a foreign language.

## **The study aims at :**

1. investigating Iraqi EFL learner's performance in the area of word formation processes at recognition and production levels,so as to know the difficulties faced by them in this area.
2. establishing a hierarchy of difficulty among linguistic levels, recognition and production.
3. suggesting remedial work for the alleviation of the difficulties.



**It is hypothesized** that Iraqi EFL college students fail to recognize and produce words resulted from word formation processes.

The study covers theoretical as well as practical aspects. The theoretical side deals with the survey of the topic. It begins with definition of word formation in general, and then, classifies the processes of word formation and state them in detail.

In order to fulfil the practical aspect ,i.e, to achieve the test aims and to verify the hypothesis, 96 students of the second year from the Department of English, College of Education, University of Diyala were randomly selected to represent the study sample. An achievement test which covers both recognition and production levels has been constructed by the researcher. After estimating the validity and reliability of the test, it was administered to the sample of the study.

T-test percentages, the t-test for one independent sample has been used to find out whether there is any significant difference between the computed t-value and the tabulated one.

The statistical analysis of the data shows that Iraqi EFL college students' level is weak in recognizing and

producing words resulted from the processes of word formation.

In the light of the above results, relevant conclusions are drawn and a number of recommendations and suggestions are put forward.

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## LIST OF ABBREVIATIONS

<b>D.F</b>	<b>Degree of Freedom</b>
<b>DL</b>	<b>Difficulty Level</b>
<b>DP</b>	<b>Discriminating Power</b>
<b>EFL</b>	<b>English as a foreign Language</b>
<b>Prod</b>	<b>Production</b>
<b>Rec</b>	<b>Recognition</b>
<b>S.D</b>	<b>Standard Deviation</b>

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**جامعة ديالى**

**أداء الطلبة العراقيين الجامعيين متعلمي**

**اللغة الإنكليزية لغة أجنبية في مجال**

**عمليات تكوين الكلمات :**

**المشاكل والبرنامج العلاجي**

**رسالة**

**تقدمت بها الطالبة**

**لقاء حبيب محمود العبيدي**

**إلى**

**مجلس كلية التربية / جامعة ديالى**

**وهي جزء من متطلبات درجة الماجستير / تربية  
في طرائق تدريس اللغة الإنكليزية لغة أجنبية**

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**١٤٢٨ هـ**



## أداء الطلبة العراقيين الجامعيين متعلمي اللغة

### الإنكليزية لغة أجنبية في مجال عمليات تكوين

#### الكلمات: المشاكل والبرنامج العلاجي

تكوين الكلمات في اللغة الإنكليزية هو مجموعة من الميكانيزمات المستخدمة في خلق كلمات جديدة. و هناك عدد من العمليات التي تشارك في تكوين الكلمة الجديدة و هذه العمليات تشمل: الاشتقاق، التركيب، التحويل، اللفظة الاوائلية، النحت الارتجاعي، الاستعارة، القطع، الدمج، الاختراع، الكلمات الصدوية، المضاعفة، استخدام الأصل الشعبي للكلمة واستخدام أسماء الأشخاص أو المدن للتعبير عن الكلمات.

عمليات تكوين الكلمات هي عبارة عن إنتاج معاني جديدة، تجديد للمصطلحات، اغناء مفردات اللغة وتوسيع الجوهر الأساسي لها لكنها في ذات الوقت موضوع صعب ومثير للجدل بالنسبة للطلبة العراقيين متعلمي اللغة الإنكليزية لغة أجنبية.

تحاول هذه الدراسة أن تختبر أداء الطلبة العراقيين الجامعيين في تمييز واستخدام هذه العمليات، تحليل الأخطاء الحاصلة في أدائهم ومن ثم استخراج أسباب هذه الأخطاء بطريقة تسهل استحداث الحلول الممكنة للمشاكل المحددة من قبل الباحثة.

#### وعلى أساس هذه الاعتبارات ووجهت الدراسة باتجاه:

- ١- استقصاء أداء الطلبة العراقيين الجامعيين متعلمي اللغة الإنكليزية لغة أجنبية في مجال عمليات تكوين الكلمات على مستويين: التمييز والإنتاج وذلك لمعرفة الصعوبات التي تواجههم في هذا الموضوع.
- ٢- بناء تسلسل هرمي للصعوبة بين المستويات اللغوية، التمييز والإنتاج.
- ٣- اقتراح برنامج علاجي تعليمي لتخفيف الصعوبات.

و لتحقيق هذه الأهداف وضعت الفرضية القائلة أن الطلبة العراقيين الجامعيين متعلمي اللغة الإنكليزية لغة أجنبية يعجزون عن تمييز وإنتاج الكلمات الناتجة عن عمليات تكوين الكلمات .

تناول الجانب النظري للدراسة مسح الخلفية النظرية للعمليات الإحدى عشرة التي تم تناولها في هذه الدراسة حيث يبدأ بتعريف مبسط للعمليات ثم الكلام عنها بالتفصيل.

في الجانب التطبيقي ومن أجل تحقيق أهداف الدراسة وتحقيق الفرضية تم بناء اختبار مكون من أسلوبين لجمع المعلومات، التمييز والإنتاج وتناول بصورة مفصلة العمليات المشار إليها سلفاً وتم عرض الاختبار على مجموعة من الخبراء من ذوي الاختصاص للتأكد من صدق الاختبار. ثم وبعد التأكد من صدق وثبات الاختبار تم تطبيقه على عينة الدراسة. اختير عشوائياً ٩٦ طالباً من السنة الثانية / قسم اللغة الإنكليزية / كلية التربية / جامعة ديالى لتكوين عينة الدراسة .

أستعمل الاختبار التائي لعينة واحدة لتحديد مستوى العينة في تمييز وتكوين الكلمات الناتجة من عمليات تكوين الكلمات .

اعتمدت الباحثة معيار اكتساب بمستوى ٥٠% فما فوق وأظهرت النتائج أن مستوى الطلبة العراقيين الجامعيين متعلمي اللغة الإنكليزية لغة أجنبية ضعيف في تمييز وتكوين الكلمات الناتجة عن عمليات تكوين الكلمات . وفي ضوء هذه النتائج تم التوصل إلى استنتاجات محدودة وتقديم عدد من التوصيات ، بجانب ذلك وضعت مقترحات لدراسات أخرى .

## *CHAPTER ONE*

# *Introduction*

### **1.1 The Problem and its significance**

Word formation is a process of enriching a language with new forms and meanings "including the two main divisions of inflection (word variation signalling grammatical relationships) and derivation (word formation signalling lexical relationships)". (Crystal ,2003:502)

In English, the processes currently used are: derivation, compounding, conversion, borrowing, clipping, blending, acronymy, back-formation, coining (invention), echoism, reduplication, antonomasia and folk etymology.

( Yule, 1996:64-69 & Stageberg and Oaks 2000:128-134)

The picture of word formation raises several problems. Such problems may be due to "irregular and regular " processes. Yule (1996:64) states that "there is a lot of regularity in the word formation processes", while Palmer (1984 :118) points out that there are only partial regularities. He also (Ibid.) states that "since there are some partial regularities, a study of word formation is possible". So it seems as a matter of regularity and irregularity of the application of word formation processes. Bauer (1983:1) expresses his views saying that "irregular cases are treated as outside the scope of rules, and are instead explicitly memorized. This allows the remaining regular cases to be





accounted for using a relatively simple set of deterministic principles (e.g.rules, parameters, constraints )".

More precisely, problems with word formation processes may be divided into "grammatical" and "lexical " problems(Crystal ,2003:502) besides the problems of productivity (Quirk et al ., 1972:976)

Lexically, all these processes change the meaning of the word in one way or another. Some of these processes yield completely new words with new meanings that may not have any relation with an original word, for example, in the processes of invention and echoism, the new words are completely invented and have not any relation with an old one such as **kodak, nylon, hiss, peewe**. Others come "from reshaping existing meanings". (Wardhaugh,1977:213) As a result,"if we know the meaning of the original word,the meaning of a new word can be deduced without much difficulty " (English word formation processes :1) Though sometimes, "some inspiration has to be thrown into it, for example, (I'm going to **bottle** some pears this afternoon) the meaning of **bottle** here is selfevident" (Ibid.)

Grammatically,Kharma and Hajjaj(1989:37)states that:

*One quite cause of mistakes is the fact that the combination of affixes*

*and roots in English to change a verb into a noun or a noun into an adjective etc. is quite arbitrary. Consequently in the absence of any rules or even generalisations, the student has no alternative but to learn each derivative as he comes across it".*

Finally, a rule of word formation usually differs from a syntactic rule in one important aspect that it is of limited productivity, in the sense that not all words which result from the application of the rule of word formation are acceptable; they are freely acceptable only when they have gained an institutional currency in the language. (Quirk et al., 1972:976)

So, the present study is an attempt to investigate the areas of difficulty in recognizing and producing words resulting from the processes of word formation through answering these questions:

1. Do the students understand the meaning of new words, resulted from word formation processes, with the same degree of understanding? Why?
2. Do the students produce new words of all types of word formation processes with the same degree of mastery? Why?

To the researcher's best knowledge, no study has been conducted in Iraq to tackle the subject . So , the study is going to bridge the gap in the literature related to methodology.

## **1.2 Aims of the Study**

The study aims at :

- 1.investigating Iraqi EFL learners' performance in the area of word formation processes at recognition and production levels,so as to know the difficulties faced by them in this area,
- 2.establishing a hierarchy of difficulty among linguistic levels, recognition and production,and
- 3.suggesting remedial work for the alleviation of the difficulties.

## **1.3 The Hypothesis**

It is hypothesized that Iraqi EFL college students fail to recognize and produce words resulted from word formation processes.

#### **1.4 Value of the Study**

The current study is expected to be of value to :

1. Iraqi EFL students at the College of Education , Department of English to pinpoint the difficulties in the area of word formation processes, and
2. teachers of English to devise the essential methods and techniques that will help learners overcome the problems in this specific area.

#### **1.5 Limits of the Study**

1. This study is limited to these word formation processes : clipping , borrowing , coinage(invention) , compounding , blending , backformation , conversion , acronymy , echoism , folk etymology , antonomasia and reduplication .
2. The sample of the study is randomly drawn from the second year , EFL students of the College of Education , University of Diyala , for the academic year 2005-2006.

#### **1.6 The procedures**

The procedures to be followed are:

1. reviewing literature concerning the topic under investigation,

2. selecting a representative sample which consists of second year EFL students of the College of Education University of Diyala ,

3. constructing a test which covers all word formation processes at both recognition and production levels,

4. analysing data statistically through using suitable means, and

5. drawing conclusions based on the findings of the study.

## *CHAPTER TWO*

# *Theoretical Background*

### **2.1 An Introductory Note**

This chapter deals with the presentation of word formation processes . This presentation is meant to provide a theoretical perspective of the subject under investigation . It discusses the ways in which language produces new words with new meanings , by using these processes:

**derivation , compounding , conversion , borrowing , clipping ,blending , acronymy , back- formation , coining(invention) , echoism , reduplication , antonomasia and folk etymology .**

The purpose of this chapter is to provide background information on the major theoretical issues that will be referred to in the empirical part of the study . It also aims to review some studies that share in some points with this study.

### **2.2 Word Formation**

Morphology is a branch of linguistics concerned with the " forms of words " in different uses and constructions (Matthews , 1974:3). More precisely , the term morphology refers to the study of internal structure of words . ( Brown and Miller , 1980:161)

The principle division of morphology lies between inflection and word formation . According to Brown (1984:72) , inflection refers to aspects of word structures that relate to variations in word form associated with such grammatical categories as " number " , " tense " , etc . Word formation , which is the main study concern , refers to " the ways of creating new words in English " ( Rubba , 2004: 1) .

More specifically , " word formation is concerned with the patterns along in which a language forms new lexical units" . ( Marchand , 1969 :2).

One of the most important properties of word formation is productivity . It can be defined as " the property which makes possible the construction and interpretation of new signals , i.e , of signals that have not been previously encountered and are not to be found on some list " . (Lyons , 1990:22)

Bauer(1983:3) states that the search for full productivity seems futile because such rules are inherently semi productive in the same manner that derivational rules are often characterized as semi productive.Quirk et al., (1972:976) point out that rules of word formation can become productive or lose their productivity , can increase or decrease their range of meaning or grammatical acceptability.They (Ibid.) also maintain that a rule of word

formation is of limited productivity , in the sense that not all words which result from the application of the rule are acceptable . They are freely acceptable only when they have gained an institutional currency in the language. Thus, there is a line to be drawn between actual English words (e.g. **sandstone** , **unwise** ) and potential English words (e.g. (\*) **lemonstone** , (\*) **un excellent** ), both of these being distinct from non-English words like \* **selfishless** which , because it shows the suffix –less added to an adjective rather than to a noun , does not even obey the rules of word formation.

Katamba (1993:66) views productivity in terms of generality. The more general a word formation process is , the more productive it will be assumed to be . He (Ibid.) adds that there are two key points related to word formation as follows:

**1.Productivity is a matter of degree.** Probably , no process is so general that it effects without exception , all the bases to which it could potentially apply .The reality is that some processes are relatively more general than others.

**2.Productivity is subject to the dimension of time .** A process which is very general during one historical period,



may become less so at a subsequent period. A reverse state can also be done .

The processes of word formation play a crucial part in English vocabulary change and such change occurs in a variety of ways. Linguists deal differently with these ways. In this respect , Wardhaugh(1977:208) states that the change of vocabulary may be due to :

**1.Developing the inner resources of the language:** The inner resources of a language are used in such a process as compounding , back-formation , invention , acronyms , morphemic split and morphemic merger.

**2.Borrowing :** It happens when the speakers of a language have contact with speakers of other languages.

**3.Semantic change:** It is a change in meaning which includes narrowing , widening ,elevation , degradation ,folk etymology and euphemism.

Quirk et al ., (1972:981) observe that word formation can be divided into two types: major and minor. Major processes tackle the processes of affixation conversion and compounding while minor processes deal with forming new words on the basis of old ones , include blending , clipping and acronymy .

Generally , word formation covers all the processes whereby new words can be created . The processes which

include derivation , compounding , conversion , borrowing , clipping , blending , acronymy , back-formation , coining , echoism , reduplication , antonomasia , folk etymology and invention are discussed in details below:

### 2.2.1 Derivation

Crystal (2003:132) defines this process as a term used in morphology to refer to one of the two main categories or processes of word formation , the other being inflection. Basically , the result of a derivational process is a new word. **e.g nation → national**. The result of an inflectional process is a different form of the same word. Derivation is accomplished by means of a large number of small bits of the English language which are not usually given separate listing in dictionaries. These small bits are called affixes such as **un-, pre-, -less , -full , etc.** (Yule,1996:69)

There are three types of affixes . The first one is prefix, which means an affix attached before a root or stem or base like **re-, un-**,as in **rewrite** and **unhappy** . The second type of affixes is suffix, which is an affix attached after the root (or stem or base)like **-ly, -er** as in **teacher** and **kindly**. The last type of affixes is infix which is inserted into the root

itself such as **kangaroo** → **kanga-bloody-roo**(Katamba, 1993:44).

In the light of the above divisions, derivations can also be classified into two types: class maintaining derivation and class changing derivation. Allerton (1979:229) points out that class maintaining affixes mainly have the function of indicating a particular lexico-semantic characteristics such as female "**-esc**", pejorative "**miss-**", diminutive "**-let**", negative "**un-**" etc. Class changing affixes are characterized by having more abstract meaning. However, they are considered as indication of a syntactic class within an exocentric construction.

Derivation must be distinguished from inflection. Inflection deals with the processes whereby the forms of the lexeme are derived from the lexical stem. Thus, suffixation of **-s** to **unwind** gives **unwinds**. This is an inflectional process (Huddleston, 1988:25). Derivational morphemes are used to form new words in the language and are used to make words of a different grammatical category from the stem. Inflectional morphemes are also used to indicate aspects of the grammatical function of a word. They are used to show if a word is plural or singular, if it is past tense or not, and if it is comparative or possessive form. (Yule, 1985:62).

Stageberg and Oaks (2000:97) identify three characteristics of derivational suffixes as follows:

1.The word with which derivational suffixes combine is an arbitrary matter. For example ,we must add-**ment** to the verb to make a noun whereas the verb **fail** combines only with **-ure** –to make the noun **failure**.

2.Derivational suffixes change the part of speech of the word to which it is added. The noun **act** becomes an adjective by the addition of **-ive**.

3.Derivational suffixes usually do not close off a word. They usually pile up at the end of a word as in **fertilizer**.

There is another type of derivation referred to as zero derivation.A new word may be created simply by shifting the part of speech to another without changing the form of the word and without adding any affix for example release.

Katamba (1993:47) states that derivational morphemes form new words either:

- 1.by changing the meaning of the base to which they are attached ,or
- 2.by changing the word class that a base belongs to .

### 2.2.2 Compounding

A compound is a unit of vocabulary which consists of more than one lexical stem . On the surface , there appear

to be two (or more) lexemes present , but in fact the parts are functioning as a single item which has its own meaning and grammar e.g. **landlord,red-hot, window cleaner**. (Crystal, 2004 : 129).

In English, the most important part of compounding is the head (the part of a word that determines the meaning and the grammatical category). Thus, the class of the second or the final part of a compound word will be the grammatical category of the compound. For example, noun + adjective = adjective as in **headstrong, waterlight**; verb + noun = noun as in **pickpocket, pinchpenny**.( Fromkin et al, 2003:93) .

Orthographically, compounds are written either as solid as in **bedroom** or hyphenated as in **tax-free** or open as in **reading material**.(Quirk et al ., 1972:1019)

Compound words resemble grammatical structures in that they imply grammatical relationships. These relationships can be either syntactic or semantic.

Kharma & Hajjaj (1989:49) claim that the syntactic relation that holds between the elements of a compound noun may be one of the following relations:

1. syntactic word group relations, e.g. **parts of speech, son-in-law**.
2. co-ordination, e.g. **bread and butter, gin and tonic**.

3.verb and object or adjunct,e.g. **cease- fire, break down.**

4.qualifier and noun, e.g. **black bird, blue bell.**

5.adverb and verb,e.g. **down pour,out lay.**

6.adverb and noun, e.g. **out post.**

7.the first element may denote the subject ,e.g.**day- break.**

8.the first element may denote the object ,e.g. **bloodshed.**

They (Ibid.) maintain that semantic relations are almost unlimited in number, the following are the most common:

1.The first element denotes place or time , e.g. **headache, nightclub**

2.The first element denotes purpose, e.g. **wineglass.**

3.The first element denotes means or instrument ,e.g.**hand writing, sword-cut.**

4.The first element denotes resemblance, e.g. **goldfish.**

5.The first element denotes sex, e.g. **manservent.**

Other kinds of relations can be detected in such words as **newspaper,rainbow** and **motor car** .

Stageberg and Oaks(2000:122)differentiate between compound words and grammatical structures as follows:

1.One cannot insert or intervene material between the two parts of a compound word whereas grammatical structure can be so divided as in these two sentences:

2.1. She is a sweetheart.

2.2. She has a sweet heart.

In the first one, the compound word is indivisible. But in the second sentence , one can say:

2.3. She has a sweeter heart than her sister.

2.4. She has a sweet, kind heart.

2.5. She has a sweet, sweet heart.

2. A part of a compound word cannot participate in grammatical structures. As in **hard ball** and **baseball**. **Hard ball** is a grammatical structure of a modifier plus a noun. So we can say :

2.6. It was a very hard ball. But we cannot say:

2.7. \*It was very baseball.

3. Some compound words have the stress pattern { ' ' }, as in **blue bird**, that distinguishes them from a modifier plus a noun, as in **blue bird**, whose structure carried the stress pattern { ^ ' }.

A compound word may be used in any grammatical function, for instance, it can be a noun (**wish bone**), adjective (**foolproof**), adverb (**overhead**), verb (**gain say**), or preposition (**without**). ( Pyles, 1971:293)

### 2.2.2.1 Meaning of Compounds

From a syntactic point of view , the head of the compound is central to its meaning. In a compound word, the non-head modifies the meaning of the head making it

more specific in some way or another. ( Kuiper and Allan ,1996:145)

Sometimes ,the meaning of individual parts reflects the meaning of the whole word. However ,many compounds do not reflect the meaning of the individual parts at all. **A jack-in – a – box** is a tree and **a turncoat** is **a traitor** .(Fromkin ,et al., 2003:93)

Generally ,compounding appears to be irregular in many respects. This implies the unsystematic way in which morphemes combine; for instance ,we say **English man** and **Irish man** but not **German man** . Also we find the word **into** but not **in through**. (Falk, 1978:42)

Phonologically ,the first word in a compound is usually stressed and in a noun phrase the second word is stressed. Thus ,we stress **Red** in **Redcoat** but **coat** in **redcoat**. (Fromkin et al ., 2003:95).

### 2.2.3 Conversion

Conversion is the use of a word as a part of speech other than that which it primarily is .( Algeo ,1974:210). It is also defined as a derivational process whereby an item adopted or converted to a new word class without the addition of an affix. For example ,the verb **release** corresponds to a noun **release**. (Quirk et al ., 1972:1009)



Conversion requires a change only in the grammatical properties of the stem, leaving the other features such as pronunciation and spelling unchanged.

Bauer ( 1983:32) states that Lyons and Marchand regard conversion as a branch of derivation ,others regard it as a separate process of word formation because nothing is added and nothing is deleted. Regardless of the truthfulness of such claims ,they remain invalidated.

Crystal (2004 :129) states that converted forms can be expressed in various ways as follows:

- verb to noun —————→ **win , hit , bore**
- adjective to noun —→ **bitter , natural , final , monthly**
- adjective to verb —→ **to dirty , empty , dry, calm down**
- noun to verb—————→ **to bottle , catalogue , oil , brake**
- noun to adjective————→ **its cotton , brick , reproduction**
- grammatical word to noun————→ **the how and the why**
- affix to noun—————→ **ologies and isms**
- phrase to noun—————→ **has – been , free – for – all**
- grammatical word to verb————→**to down tools ,to up and do it**

There are two types of conversion ,complete conversion and partial conversion . Zandvoort & Vanek (1972:266) claim that in the complete conversion ,the converted word has all intents and purposes to become

another part of speech .Thus ,when **slow** is used as a verb ,it may take any of the forms and functions of a verb.Whereas in the partial conversion ,the converted word takes only some of the characteristics of the other part of speech .So that it really belongs to two parts of speech at the same time .Thus ,**the poor** ,though plural in meaning ,does not take a plural ending: it becomes a noun to some extent only ,while remaining to some extent an adjective.

#### **2.2.4 Borrowing**

When English speakers enter into contact with other cultures and civilizations ,they have to enrich their native word stock by adopting thousands of words from many languages all over the world in order to keep pace with the rapid advances of scientific discoveries ,the widespread diffusion of knowledge and the development of international relationships.So borrowing happens when one language takes lexemes from another ,the new items are usually called loan words. ( Crystal ,2004:126)

Borrowing may involve the levels of syntax and semantics without involving pronunciation at all. (Hudson ,1980:59).On the same line ,Falk (1978:50) illustrates that the new word is pronounced according to the sound system of the language to which it is being added.

There is a close relation between borrowing on one hand and history and culture on the other .In this concern ,Fulk (1978) suggests that:

*" to trace the history of linguistic borrowing is to trace the history of a people , where they settled ,whom they conquered ,who conquered them ,their patterns of commerce ,their religious and intellectual history and the development of their society " (p:50)*

Borrowing takes place when two speech communities are in contact. This can occur when the territories of the two linguistic groups bordered on one another resulting in inter-communication , " whereby speakers of one language are in linguistic contact with speakers of another language" (Ibid.:51)

Historically ,in the early Middle Ages ,Vikings raided and then settled Northern England .Words from the Norse dialects which the Vikings spoke and which were borrowed include : **egg** , **husband**. Later ,in the Middle Ages the Normans invaded England and settled there . Borrowed vocabulary which dates from this period includes the following : **warden** and **castle**. Finally ,the colonial period of settlement ,when English speakers settled in places likes

North America and India. Thus ,most of these languages contact lead to some degree of borrowing ,for instance ,**tomahawk** came from North America and **curry** from India. (Kuiper and Allan ,1996:182)

Wardhaugh (1977:209) clarifies an interesting pairs of words as **cow** and **beef** ,**sheep** and **mutton** ,**calf** and **veal** ,**pig** and **pork** in which the first item ,the name of the animal ,is Germanic in origin and the second item ,the meat of the animal ,is borrowed from French.

According to Wood (1971:229) ,borrowings have come into English through the following three means:

1-They may have been brought by foreign invaders who settled in Britain . Words introduced in this way usually pass into the spoken language first and then are adopted by the literary language.

2-They may come through foreign contact originating in war, exploration ,trade , travel , etc .They are also first adopted by the spoken language and later pass into the literary one.

3-They may come through scholarship ,learning , religion and culture .These words usually appear in the written language first and later pass into the spoken language.

A special type of borrowing called internal borrowing "borrowing between varieties of the same language"

(Strang ,1979:33). Such borrowing can be made from local dialects and the diction of special groups into the standard language.

#### **2.2.4.1 Loan – Translation (Calque)**

German has made extensive use of a special type of borrowing which is called loan-translation or calque.

Strang (1979:95) called this process , " half loan ,loan formation or loan translation" respectively .She adds that this process "is represented by a type in which the elements are rendered into corresponding ones in the borrowing language; there is no outer similarity of form ,but the structure and function are alike".For example ,the English **superman** is a loan-translation of the German **Übermensch**, and the expression " **I've told him I don't know how many times**" is a direct translation of French "**fe le lui a: ditje ne sais pas combien defois**" (Bloomfield ,1933:457)

#### **2.2.5 Clipping**

Clipping refers to the process of word formation in which an existing form is abbreviated ( Matthews ,1997:56).More precisely ,it is the cutting off the beginning or the end of a word or both , leaving a part to stand for the

whole (Stageberg and Oaks ,2000:129). This process is likely to occur " if a word's form seems rather long and cumbersome .(Kuiper and Allan ,1996 :187). Many forms of clipping are characteristics of informal or casual speech or tended to belong to colloquial language.

Clipped forms can be used in all fields of life .In colleges ,for example ,one can find many forms like **lab** , **exam** , **prof.** , **math** , etc.

Quirk et al ., (1972:1030) state that the shortening may occur in the following phases

a- the beginning of the word as in:

**Phone**        **telephone**

**plane**        **airplane , aeroplane**

**bus**        **omnibus**

b-the end of the word (more commonly)

**ad**        **advertisement**

**photo**    **photograph**

**exam**    **examination**

c-at both ends of the word:

**flu**        **influenza**

**fridge**    **refrigerator**

A special type of clipping occurs after an initial unstressed syllable has been lost ,as in childish " **scuseme**" and "**I did it cause I wanted to**" (Pyles ,1971: 296)

Sometimes ,clipped words can be formed from grammatical units such as modifier plus noun. In this case the first part is shortened and the second remains intact such as paratrooper from parachutist trooper (Stageberg and Oaks,2000:130)

### 2.2.6 Blending

Blending is typically accomplished by taking only the beginning of one word and joining it to the end of the other word (Yule ,1996:66). Thus , bit , in computer terminology is derived from binary digit. Crystal (2004 : 130) states that "in most cases,the second element is the one which controls the meaning of the whole". So ,brunch is a kind of lunch not a kind of breakfast.

In the oldest period of the language ,blending was considered an unconscious process as in the example **flush** from **flash** and **gush**. In recent years ,there is a great proliferation of conscious blending such as the most successful one **smog** from **smoke** and **fog**. (Pyles ,1971 :298)

Fromkin et al.,(2003:99) explain that Lewis Carroll invents some interesting blends in his poem "Jabber Wocky" such as **chrotle** from **chuckle** and **snort** . Carroll called them " portmanteau" words.

Stageberg and Oaks(2000,131) argue that " many blends are nonce words ,here today and gone tomorrow ,and relatively few become part of the standard lexicon". Kuiper and Allan (1996:185) define nonce words as" words used just once and then are not used again"

Below are some new examples of blending:

<b>infotainment</b>	from	<b>information + entertainment</b>
<b>simulcast</b>	from	<b>oadsimultaneous + brcast</b>
<b>Franglais</b>	from	<b>French + English</b>
<b>telex</b>	from	<b>teleprinter + exchange</b>
<b>modem</b>	from	<b>modulator + demodulator</b>

### 2.2.7 Acronymy

Matthews (1997:6) defines the acronym word as " a word formed from the initial letters of two or more successive words ,for example ,**ash** from "**Action on Smoking and Health**".

The word acronym has Greek origin which was coined from Greek **akros** "**tip**" and **anyma** "**nam**" ,by analogy with homonym. (Pyles ,1971:300)

Acronym is one type of abbreviations ,the other being clipping ,blending and others. There are many reasons for using abbreviations. Crystal (2004:120) illustrates that the main reasons are the desire for linguistic economy,



succinctness and precision are highly valued. It is also important in technological constrains ,it helps to convey a sense of social identity.

Acronyms tend to abound in large organization ,for instance ,in the army ,in government ,and in big business where they offer neat ways of expressing long and cumbersome terms.(Stageberg and Oaks ,2000:131)

Acronyms must be distinguished from initialisms where the words are spoken as individual letters such as **BBC** , **MP** , **EEC**. These are also called alphabetisms. Acronyms ,on the other hand ,are pronounced as a single word such as **NATO** , **laser** , **UNESCO**. Such items would never have periods separating the letters ,a contrast with initialisms .Some linguists never recognize a sharp distinction between acronyms and initialisms ,but use the former term for both.(Crystal ,2004 :120)

Acronyms can be used also in trade for expressing trade names as Louis Pound said of them in 1913" there are probably many terms so built ;but they are not always easy to recognize ,especially by those unfamiliar with the inventors or the manufacturer's name ,or with the story of the naming".(Pyles ,1971:301)

Lastly ,with the widespread use of the internet and with the proliferation of computers ,acronyms are being added to

the vocabulary daily ,including **MORF** (**male** and **female**) ,**FAQ** (**frequently asking questions**) ,**FYI** (**for your information**). (Fromkin et al ., 2003:95)

### 2.2.8 Back Formation

In back formation " a short word is created from a longer one on the basis of similarities between the word and other words in the language .For example ,the word **editor** existed in the lexicon of English long before the word **edit**" (Falk ,1978:58). More precisely ,this term refers to an abnormal type of word formation where a shorter word is derived by deleting an imagined affix from a longer form already present in the language .These derivations took place because native speakers saw an analogy between editor and other words where a normal derivational process had taken place .(Crystal ,2003:47)

If we take the word **editor** and **edit** as an example ,the process here is just the reverse of the method of word formation ,whereby we begin with a verb such as **speak** and by adding the agent morpheme – **er** – from the noun **speaker**.(Stageberg and Oaks ,2000:132)

Yule (1996:67) illustrates a particular type of back – formation which produces forms technically known as hypocorisms. First , a longer word is reduced to a single

syllable ,then – **y** or –**ie** is added to the end ,for instance ,**movie** from **moving pictures** and **telly** from **television**

### 2.2.9 Coining (Invention)

Coining of words is an " entirely original creation , utilizing neither words from another language nor morphemes and words already in use in one's own language" .( Falk , 1978:60)

It is also defined as " the invention of totally new terms" . ( Yule , 1996:64) . These words are like **nylon** and **goof**.

Some linguists such as Pyles (1971:275) claim that many of these words are far from any associations with any existing word or words such as **Kodak** which made its first appearance by George Estman who invented the word as well as the device which it names . Others , contrasted this viewpoint saying that " many of coining words were created from existing words such as **Kleenex** from the word **clean** and **Jell-o** from **gel**.

Other origins of coining words came from Greek roots , borrowed into English , for example , **thermos** "hot" plus **metron** " measure" gives us **thermometer**. (Fromkin et al . , 2003:92)

### 2.2.10 Echoism

Echoism is " the formation of words whose sound suggests their meaning , such as **hiss** and **peewee**" (Stageberg and Oaks , 2000:129). Yule (1996:2) illustrates that " all modern languages have some words with pronunciations which seem to echo naturally occurring sounds" . For example when a **cow** making a **CAW** sound, the early man used this sound to refer to the object associated with it. Such words are called onomatopoeic. Falk (1978:60) defines an onomatopoeic words as " a modified type of coining in which a word is formed as an imitation of some natural sound"

Pyles (1971:276) clarifies that Bloomfield distinguishes between words, which are usually imitative of sounds like **moo**, **meow** and those which he calls them symbolic , "some who illustrating the meaning more immediately than do ordinary speech forms . To the speaker , it seems as if the sound were especially suited to the meaning " , like **bump** and **flick**.

### 2.2.11 Reduplication

Stageberg and Oaks (2000:134) define reduplication as " the process of forming new words by doubling a morpheme ,usually with a change of vowel or initial

consonant ,as in **pooh – pooh** ,**tiptop**" .The basic morpheme is the second half like **dilly – dally** ,but it may be the first half , like **ticktock** ,or both halves ,like **singsong** , or neither half ,like **boogie – woogi** .

The new word usually called " twin words" because the word reduplication has three meanings ,the process ,the result of the process ,and the element repeated .(ibid).

Crystal (2004:130) illustates that reduplicatives are used in a variety of ways:

1. some simply imitate sounds :**ding–dong** , **bow-wow**
- 2.some suggest alternative movements :**flip–flop,ping-pong**
3. some are disparaging :**dilly-dally** , **wishy-washy**
4. some intensify meaning :**teeny-weey** , **tip-top**

This process is used to express some concepts such as distribution ,plurality ,repetition ,customary activity ,increase in size ,added intensity ,and continuance. (Katamba ,1993:180)

### 2.2.12 Antonomasia

Antonomasia is the use of a proper name to stand for something else having an attribute associated with that name .For example ,the use of a "**Solomon**" to stand for a wiseman and the use of "**Land of Lakes**" to stand for

Minnesota .(Headword Morphology , AH : 1) The opposite substitution of a proper name for some generic term is also sometimes called *antonomasia*; as "**Cicero**" for an **orator** (Louis,2006:1)

Stageberg and Oaks (2000:134) add that " names from history and literature have given us many common nouns ,for instance ,a lover may be called a **Romeo** , a **Donjuan** ,or a **Casanova**"

Nouns may be used generically or because of some supposed appropriateness like **billy** in ( **billycock** ,**hillybilly** ,**sillybilly** and alone as the name of a **policeman's club**) . ( Pyles ,1971:307)

This process has been given different names ,for instance ,"proper name conversion" (Kuiper and Allan ,1996:187) ,and "eponymy" (Fromkin et al .,2003:98) ,and "antonomasia" (Stageberg and Oaks ,2000:134).

### 2.2.13 Folk Etymology

Crystal(2003:167) states that folk etymology " occurs when a word is assumed to come from a particular etymon ,because of some association of form and meaning ,e.g.**spite** and **image** become **spitting image**".

In popular usage ,the term has also come to mean an "**explanation**" of the meaning of the word based on its

superficial similarity to other words and not on its morphology ,documented history or scientifically reconstructible past forms. (Room et al ., 2005 :1)

Linguistically ,folk etymology means a process by which a word or phrase changes because of a popularly – **held fake** etymology ,or misunderstanding of the history of a word or phrase ,for instance the form of a word changes so that it better matches its popular realization ,for example ,Old English **sam-blind** ,**semi-blind** or **half blind** became **sand-blind** (as if blinded by the sand) (ibid).

Wardhaugh (1977:212) relates the two phenomena of borrowing and semantic change to folk etymology .He states that "in this process , a word or phrase is borrowed from a foreign language and its sound and meaning are reshaped during the process of borrowing because of certain similarities it has with words already in the language .In this way **crawfish** has taken on an association with **fish**, **female** with **male**".

Stageberg and Oaks (2000:134) state that "some etymologies become established in the speech of particular individuals but are not widespread enough among speakers of a language to necessitate changes within a dictionary".

## **2.3 Description of Studies Reviewed**

### **2.3.1 Rassam ( 1987 )**

The objectives of this study were:

- 1-finding out what kind of errors Iraqi pupils make in this aspect of learning English as a foreign language,
- 2-analyzing such errors, and
- 3-suggesting, in an indirect manner, possible solutions to overcome causes for such errors.

It was hypothesized that:

- 1-Iraqi pupils encounter problems in learning Standard English derivatives,
- 2-learning new derivatives does not receive much help from the patterning governing the formation of such derivatives,
- 3-the differences between Standard Arabic derivational system and its Standard English counterpart are so big that Arabic interference in particular aspect of English learning is almost negligible , and
- 4-learning new derivatives nearly accounts to learning any new non-derived words.

The test was administered during the later part of the second half of the academic year 1986 – 1987 – It was given to fifth year pupils from different schools in Baghdad,



The major findings of this study can be summed up as follows:

1-The characteristics of English derivational system are: complex, on the one hand, helpful on the other. It is complex for the following reasons:

- a. The same affix may form different word classes.
- b. A word – class is not formed by one affix.
- c. Stress placement makes a difference in the formation of derivatives.
- d. Certain derivational affixes may have more than one meaning and can be added to more than one category of word – base.

It is helpful for the following reasons :

- a. Certain affixes do denote a certain word – class.
- b. Knowing the meaning of an affix helps in understanding new words carrying the same affix.

2- The characteristics of the Arabic derivational system are as follows :

- a. It requires a thorough study in accordance with modern morphological views and approach.
- b. There is no clear difference between inflection and derivation.

c. The study of Arabic derivation carried out by this study is (to the researcher's best knowledge) unprecedented, because:

1- Traditionally, either the verb or the verbal nouns was considered the root for word – formation . Both are not correct because in any verb or any noun there are affixal elements which denote this or that grammatical feature.

2- Radicals are the true base of the Arabic word and radicals are what this thesis has adopted.

3- Comparison renders the two systems wholly different in so many aspects. Therefore, Arabic transfer of learning is almost non – existent.

4- The test has shown the following general findings:

a. Iraqi pupils are weaker on the production level than on the recognition one .

b. Certain affixes are more attractive than others.

c. Attractiveness of an affix is highly correlated with the high frequency of that affix in the material Iraqi pupils are exposed to.

d. Iraqi pupils tend to over generalize a highly frequent affixes.

e. Odd looking affixes tend to attract pupils of the lower academic level.

f. Arabic distractors are chosen because they are odd – looking, not because they reflect the influence of the mother tongue, a fact confirmed by the near absence of Arabic choices on the production level.

g. Socio-economic factors influence the overall achievement of Iraqi pupils in learning English in general and in learning new derivatives for that matter.

h. Seriousness in responding to the test items is very much correlated with the socio – economic background of Iraqi pupils the higher the standard of living of an Iraqi pupil, the more serious he or she is.

### **2.3 .2 Abdul-Razzaq ( 1996)**

This study is expected to provide an empirical evidence for Bauer's (1983) claim that foreign language learners are not aware of the analysability of this type of words. It is also expected to validate the employment of student's awareness of the analysability of English words as a means for expanding their vocabulary.

The study is based on the following hypotheses:

1-Advanced Iraqi EFL learners are not aware that English words that contain Greek and /or Latin roots are analysable.

2-Once these learners realize that such words are analysable, they will be able to expand their vocabulary considerably.

3-These learners find the meanings of words containing Greek roots easier to deduce than those words containing Latin roots.

The following are the major delimitations of the study:

1-The sample of the learners has been limited to third year EFL students at the college of Arts, Baghdad University.

2-The teaching materials developed as well as the items of the two tests ( apart from part 1 of the pretest) have been limited to the Greek and Latin root listed in appendices E and F.

3-The area of student's ability which this research seek to improve has been delimited to the student's receptive into their component parts.

The major findings of this study were :

1-Advanced Iraqi EFL learners are not aware of the analysability of English words containing Greek and Latin root. Moreover, these learners command of this type of vocabulary items is markedly poor.

2-When made aware of the analysability of these words, these learners will be able to increase their vocabulary considerably.

3-Students find guessing the meanings of words containing Greek roots easier than those of words containing Latin roots.

4-Students find guessing the meaning of words whose roots have undergone no linguistic changes ( or those whose changes have been explained to the students) easier than those of words whose roots have undergone such changes.

### **2.3.3 Al – Saadi ( 2002)**

This study investigated the morphological and semantic approaches to find out which one of these two approaches is considered the core of the process of English word – formation.

This research concentrated on the interface between morphology and semantics in English word – formation along with the effects they show in various processes of word make – up.

It was hypothesized that morphology and semantics have a parallel effect in the process of English word formation. Each suffix or prefix has a certain meaning which modifies the meaning of the base.

This study yielded the following conclusions :

1-This study displays the interface between morphology and semantics in English word formation. This interface may be invisible since we are dealing with the word and other minimal units in contrast with the interface between syntax and semantics in English sentence – construction.

2-The study of morphology approaches words as the maximum linguistic units with semantic contents and morphemes as the minimal units with semantic content too .

3-The meaning of words can be detected by two approaches. The first is illustrated by ordinary dictionary method and the second by componential analysis.

4-Though inflection is one part of morphology, it interacts with syntax, that is, it has a major role in syntax. Thus, inflectional suffixes are morphosyntactic, as Traugott and Pratt (1980 :91) stress that the importance of such inflections lies mainly at the level of sentence structure and sentence meaning, rather than at the level of word structure and word meaning.

5-Generally speaking, inflection is regular in form and meaning. For example, we can predict that most English words form their plural by adding [-s] or [ -es] as in cat – cats " more than one cat " ; box – boxes " more than one box" But this does not mean that we do not have any kind

of irregularity in inflectional morphology. On the contrary, we have but the number of these is little in comparison with the irregularities found in other parts of morphology like derivation and compounding.

6-One of the morphological processes which figures in inflectional morphology is suppletion. In cases of suppletion, it is only on the basis of semantic analysis that we can relate the suppleted form to the base. For example, in **large – larger** there is a morphological relationship between the two words in addition to their meaning larger means " more large" whereas in **good – better** there is no morphological relationship between two words but the relationship is elicited by virtue of meaning. Thus ,**better** is related to **good** in the same way as **larger** is related to **large**.

7-Another part of morphology is derivation. This part is the original one in morphology. It does not have any role in syntax. It involves the addition of affixes ( either prefixes or suffixes) to the base. The vast majority of prefixes in English are class – maintaining. They modify the meaning of the base to the extent of creating new words with new senses.

8-One of the morphological processes which figures in derivational morphology is conversion. In cases of conversion, the change in syntactic category is

accompanied by a change in meaning , i.e, a semantic change. Thus, as Hurford and Heasley say **open** as a verb denotes an action whereas open as an adjective denotes a state.

## **2.4 Discussion of the Studies Reviewed**

The majority of studies reviewed deal with the study of word formation. These studies differ, in one way or another, in procedures, or approaches that are adopted to achieve the intended objectives.

One of the previous studies tackles the morphological and semantic approaches to find out which one of these approaches is considered the core of the process of English word formation as in (Al – Saadi 2002). Abdul – Razzaq (1996) tried to provide Baur's (1983) claim that foreign language learners are not aware of the analysability of words resulted from some processes of word formation as borrowing. Rassam's study (1987) deals with the comparison of English derivational system and its Arabic counterpart. The present study aims at:

1. investigating Iraqi EFL learners' performance in the area of word formation processes at recognition and production levels, so as to know the difficulties faced by them in this area,



2. establishing a hierarchy of difficulty among linguistic levels, and
3. suggesting remedial work for the alleviation of the difficulties.

As far as the samples in the studies reviewed, the samples range from (30 to 200) of both sexes as in Rassam and Abdul-Razzaq studies whereas Al-Saadi deals with a theoretical part without a test. In the present study the sample consists of (96) students.

Concerning the method of investigation, Rassam(1987) is concerned with presenting all standard English derivational affixes and presenting as many standard Arabic derivational affixes and carrying out comparison between the two systems. Abdul-Razzaq(1996) limits his study to words that have Greek and Latin roots. Al- Saadi(2002) tried to investigate the morphological and semantic approaches to find out which one of these two approaches is considered the core of the process of English word formation. The present study concerns itself in investigating eleven of English word formation processes presented in Stageberg's book "An Introductory English Grammar".

Abdul –Razzaq(1996) is similar to the present study in using the t-test formula for the test scores. Concerning the

computing of reliability , the present study is different from other studies in using test-retest method, Rassam (1987) and Abdul –Razzaq(1996) both used split –half procedure.

All in all, the studies reviewed above contribute to the present study, albeit to different approaches dealt with.

## ***CHAPTER THREE***

# ***Data Collection***

### **3.1 An Introductory Note**

The aim of this chapter is to provide a clear description of the procedural measures adopted to fulfil the aims of this study. It is going to cover the population, the sample, the test and its validation, the scoring scheme and the statistical method used to validate the test and calculate the results.

### **3.2 Population and Sample**

The population refers to any set of items, individuals, etc. which share some common and observable characteristics and from which a sample can be taken. (Richards et al ., 1992: 282).

The population of the present study includes the students of the second year, Department of English , College of Education at the University of Diyala for the academic year 2005 – 2006. Since the aim of the study is to investigate Iraqi EFL learner's performance in the area of word formation processes at recognition and production levels, a simple –random method is needed.

The word sample refers to any group of individuals which is selected to represent a population (Ibid.321).It can

also be defined as a sample in which every element in the population has an equal chance of being selected (Dictionary of English language, 2003:1). The logic of using a sample of subjects is to make inferences about some larger population from a smaller one (a sample) (Berg, 2004:34). The choice is intentional in the selection of 2<sup>nd</sup> year students. In this department, the students were expected to have studied the grammatical aspect under investigation at the rate of three hours a week. The population comprise (146) Iraqi EFL students distributed over three sections, A, B, C, as shown in table 1.

Ninety six students were chosen to represent the main study sample and other fifty students represent pilot administration.

**Table (1)**

**A Description of the Population of the Study**

<b>College</b>	<b>Second Year sections</b>	<b>No . of students</b>	<b>Sample</b>	<b>Population</b>
<b>Education</b>	<b>A</b>	<b>48</b>	<b>96(main)</b>	<b>146</b>
	<b>B</b>	<b>48</b>		
	<b>C</b>	<b>50</b>	<b>50(pilot)</b>	

### 3.3 Construction of the test

It was necessary to develop a test for the purpose of this study, since a ready-made test could not be found for this investigation. Therefore, the test items cover the processes of word formation in " An Introductory English Grammar" by Stageberg (1981).

To achieve the aims and to verify the hypothesis, it has to tap both types of knowledge : recognition and production. This is why the test is made up of two tasks: a recognition task (task one) and production tasks (two and three). The total number of the items for the three tasks of the test are (95) items as shown in Table (2) below.

**Table (2)**  
**Description of the test**

<b>Type of tests</b>	<b>Techniques</b>	<b>Items</b>
Recognition	1- Recognize the process of word formation involved	33
Production	1- Fill in the blanks 2- Complete the following	22 40

The sample of the study was exposed to testing techniques that elicit their recognition and production of the processes of word formation. In task one (recognition) the

students were asked to recognize the process of word formation involved in each item. Task two was constructed to measure the production knowledge of the testees, i.e., it concerned with giving the subjects the original words from which the new words are formed, and then specifying the processes involved. In task three, the subjects are asked to give the new word from the original one. This measure has been taken to prevent overlapping of linguistic information at both levels.

### **3.4 Test Validity**

The most important quality to consider when selecting or constructing an evaluation instrument is validity. The validity of any examination or test procedure may be broadly defined as "the extent to which a test measures what it is supposed to measure" (Heaton, 1975:135). In this regard Brown (1987:221) states that :

*There is no final, absolute, and objective measure of validity. We have to ask questions that give us convincing evidence that a test accurately and sufficiently measures the testee for the particular purpose, or objective, or criterion, of the test.*

The purpose of validation in language testing is to ensure the defensibility and fairness of interpretation based on test performance. (McNamara, 2000 : 48).

Validity is of various types (e.g. content validity, face validity, predictive validity and concurrent validity) see also Corder (1993:356). Two types of validity are considered important: content validity and face validity. Below is a brief explanation of the major features of both.

### **3.4.1 Content Validity**

Content validity must be evaluated and ensured before face validity. A test is said to have content validity if its content constitutes a representative sample of the language skills, structures, with which it is meant to be concerned. The test would have content validity only if it included a proper sample of the relevant structure (Huges, 1989:22). Content validity is concerned with the relationship between test or examination content and detailed curriculum aims. (Davies, 1968:32)

Thus, Anastansi emphasizes that:

*"content validity involves essentially the systematic examination of the test content to determine whether it covers a represe-*

*ntative sample of the behavior domain to be measured. Such a validation producer is commonly used in evaluating achievement test" . (1976, 134-135 )*

Davies et al ., (1999:34) believe that a conceptual or non-statistical validity is based on a systematic analysis of the test content to determine whether it includes an adequate sample involves ensuring that all major aspects are covered and in suitable proportions. Therefore, a survey was made by the researcher of the test items covered in " An Introductory English Grammar" by Stageberg and table of specification of behaviours and content were prepared. It contains a detailed specification of the objective of each area and the number of items used to test each objective, see table (3).Carroll and Hall(1985:115)believe that "the main focus must be non-statistical, that is, their content must rest on verbally-expressed specification skills and tasks". Therefore, the first step towards preparing a valid test is to specify the skills to be tested and to prepare a table of specification .Hamash, et al(1982) point out that a table of specification is used as a guide for test construction.



**Table (3)**  
**Specification of Behaviours and Content**

Content Area	No.of Test Items	Behaviours		Note
		R.	P.	
<b>Part one</b> Compounding 1.1 busyboy 1.24 high school 1.33 alongside	3 (1,24,33)	R.		To be able to recognize the process of word formation that refers to the given words.
Reduplication 1.2 dilly - dally 1.12 super-duper 1.32 nitwit	3 (2,12,32)	R.		
Antonomasia 1.3 Frankfurter 1.13 sandwich 1.31 baloney	3 (3,13,31)	R.		
Derivation 1.4 codger hood 1.14 unhappy 1.25 teleplay	3 (4,14,25)	R.		
Clipping 1.5 lab 1.15 prof 1.26 math	3 (5,15,26)	R.		

Content Area	No.of Test Items	Behaviours		Note
		R.	P.	
Back– formation 1.6 revise 1.16 televise 1.30 donate	3 (6,16,30)	R.		
Acronymy 1.7 P.m 1.17 OPEC 1.29 OK	3 (7,17,29)	R.		
Blending 1.2 gasohol 1.20 brunch 1.27 telecast	3 (2,20,27)	R.		
Folk etymology 1.9 femel 1.21 bridegome 1.28 angnail	3 (9,21,28)	R.		
Invention 1.10 Kodak 1.19 nylon 1.22 kleenx	3 (10,19,22)	R.		
Echoism 1.11 wheeze 1.18 hiss 1.23 quack	3 (11,18,23)	R.		

Content Area	No.of Test Items	Behaviours		Note
		R.	P.	
<b>Part Two</b> Reduplication 2.1 lovey-dovey 2.13 tick-tick	2 (2,13)		P.	To be able to give the original words from which these new words are formed and to be able to specify the process involved.
Compounding 2.2 cutoff 2.17 hangglider	2 (2,17)		P.	
Clipping 2.3 exam 2.19 ad	2 (3,19)		P.	
Derivation 2.4 disadvise 2.18 rewrite	2 ( 4,18)		P.	
Antonomasia 2.5 hamburger 2.12Newyorker	2 (5,12)		P.	

Content Area	No.of Test Items	Behaviours		Note
		R.	P.	
Back– formation 2.6 create 2.14 revise	2 (6,14)		P.	
Blending 2.7 smog 2.20 motel	2 (7,20)		P.	
Acronymy 2.8 NATO 2.15 radar	2 (8,15)		P.	
Echoism 2.9 click 2.16 thunder	2 ( 9,16)		P.	
Invention 2.10 goof 2.22 aspirin	2 (10,22)		P.	
Folk etymology 2.11 cocorocho 2.21 netball	2 (10,22)		P.	

Content Area	No. of Test Items	Behaviours		Note
		R.	P.	
<b>Part Three</b> 3.1 Clipping 1. memorandum 2. telephone 3. taxicab 4. fanatic 5. omnibus	5 (1,2,3,4,5)		P.	To be able to give the clipped form for each of the following words.
3.2 Compounding 1. break,fast 2. finger,print 3. cream,puff 4. book,text 5. wall,paper	5 (1,2,3,4,5)		P.	To be able to make compound words from each of the following words.
3.3 Blending 1. fluster+frustrated 2. happen+circumstance 3. splash+spatter 4. automobil + omnibus 5. dance+handle	5 (1,2,3,4,5)		P.	To be able to give blends from each of the following words.
3.4 Acronymy 1. Mothers Against Drunk Driving 2. light amplification bystimulatedemission of radiation 3. recreational Vehicle 4. military police 5. general purpose	5 (1,2,3,4,5)		P.	To be able to make acronyms from each of the following words.

Content Area	No.of Test Items	Behaviours		Note
		R.	P.	
3.5 Derivation 1. advise 2. happy 3. child 4. kind 5. plan	5 (1,2,3,4,5)		P.	To be able to make derivatives by adding derivational affix, from each of the following words.
3.6 Back-formation 1. baby-sitter 2. house keeper 3. emotion 4. escalator 5. enthusiasm	5 (1,2,3,4,5)		P.	To be able to change the words into a new one by using back - formation process.
3.7 Folk Etymology 1. welsh rabbit 2. carryall 3. helpmate 4. wood chuck 5. helpmeet	5 (1,2,3,4,5)		P.	To be able to change the words into anew one by using folk – Etymology process.
3.8 Reduplication 1. tick 2.clop 3. fuddy 4. tip 5. nit	5 (1,2,3,4,5)		P.	To be able to make reduplicatives from each of the following words.

### **3.4.2 Face Validity**

Face validity refers to "the way the test looks to the examinees, supervisors or in general to the people concerned with the education of the students"(Al-Juboury, 2000:23).It also means the validity at face value.(Cronbach,1971:2)

Face validity is almost always perceived in terms of content :if the test samples the actual content of what the learner has achieved, then face validity will be perceived.(Brown, 1987:222)

To ensure face and content validity,the test was exposed to a jury of experts\* in the field of English. They are especially required to determine the suitability and difficulty level of the test items to the sample of the study, and to propose and make any necessary suggestions for modifications, deletion or addition that enrich and sharpen the test.The jury have agreed that the test and the procedures are suitable except for some modifications which have been taken into consideration.

### **3.5 The Pilot Administration of the Test**

A pilot study is required to find out exactly whether the test is well constructed or not.To Harris (1969:25)pilot

administration involves " trying out the test material on a group similar to that for whom the test is being designed".

Pilot testing "attempts to determine whether the test items pass the desired qualities of measurement and discriminability". (Tuckman, 1972: 197).

Bachman & Palmer(1996:235)state that the primary purpose of collecting feedback is to provide information relevant to evaluating the qualities of usefulness and to making revisions vary,depending on the nature of the feedback obtained during pre-testing.

Result of the pilot study can be a good indicator for making any necessary modifications for the final version of the test, to estimate the time allotted, for answering all the items of the test as a whole and to determine the effectiveness of the test items in terms of their difficulty level and discriminating power in the light of the subjects responses.To achieve these aims 50 students were chosen randomly to constitute the subjects of the pilot study .

The findings of the pilot study revealed that the time required to complete the three tasks of the test range between (55-60) minutes and all students were able to answer the test.



### 3.6 Item Analysis

Item analysis is a process which examines students' responses to individual test items (questions) in order to assess the quality of those items and of the test as a whole (ScorePak, 2005:1). Item analysis is specially valuable in improving items which will be used again in later tests, but it can also be used to eliminate ambiguous or misleading items in a single test administration (Ibid.).

After the students' answer-sheets were corrected, they were arranged according to their score from high to low. Carroll and Hall (1985:115) state that item responses which are answered by students correctly should be put in a descending order from the top to the bottom. Then item analysis was made to check the difficulty level (henceforth **DL**)

Item difficulty is one component of item analysis and can be defined as "a way to quantify how difficult a test question is for the examinees in the tryout sample. The item difficulty index is symbolized by the letter "p" and ranges in magnitude from **0** to **1** (Brown et al., 1983 :1).

To find out the **DL** for each item, the following statistical formula was used :

$$DL = \frac{\text{High incorrect} + \text{Low incorrect}}{\text{Total number of sample}} = \frac{Hi+Li}{N}$$

(Al- Dulaimy & Al-Mahdawi ,2000:54)

After the application of item difficulty formula, it was found out that it ranged between (0.30 -0.72).

In addition to specifying the level of difficulty, it is often helpful to know how effectively an item separates students who know well from those who do not (Bergman, 1981:112)

The discrimination of an item is judged by comparing those individuals who succeed on a given item with those who score highly on the test as a whole ( Power ,2003:1). On the other hand, Escudero et al ., (2000:6) state that a good item should discriminate between those who score high on the test and those who score low.

Ebel and Frisbe (1986) cited in Escudero et al., (2000:8) give us the following rule of thumb for determining the quality of the items. Table (4) shows the values of D , their corresponding interpretation and the recommendation for each of these values .

**Table (4)**  
**Discriminating Power of the Answers According to**  
**Their D Value**

D =	Quality	Recommendations
> 0.39	Excellent	Retain
0.30-0.39	Good	Possibilities for improvement
0.20-0.29	Mediocre	Need to check / Review
0.00-0.20	Poor	Discard or Review in depth
< - 0.01	Worst	Definitely discard

After the application of the formula of the item discriminating power, it was found that the discrimination power ranged between 0.32 and 0.72. According to Ebel's index of discrimination , good class room test items have indexes of discrimination of (0.30) or a bove. The statistical formula of discrimination power of items used was:

$$DP = \frac{Ru - RI}{1/2 T}$$

**Where :**

**DP** = discrimination power

**Ru** = the number of pupils in the upper group who got the item right.

**RI** = the number of pupils in the lower group who got the item right.

**T** = the total number of pupils included in the item analysis.

(Mehrans & Lehman, 1973:192)

**Table (5)**  
**The Items Difficulty and Items Discriminating Power of**  
**the Test**

	Item	Item Difficulty	Item Discriminating Power
<b>Task One</b>	<b>1</b>	<b>0.52</b>	<b>0.40</b>
	<b>2</b>	<b>0.62</b>	<b>0.36</b>
	<b>3</b>	<b>0.50</b>	<b>0.44</b>
	<b>4</b>	<b>0.44</b>	<b>0.48</b>
	<b>5</b>	<b>0.46</b>	<b>0.44</b>
	<b>6</b>	<b>0.46</b>	<b>0.44</b>
	<b>7</b>	<b>0.42</b>	<b>0.40</b>
	<b>8</b>	<b>0.68</b>	<b>0.48</b>
	<b>9</b>	<b>0.50</b>	<b>0.40</b>
	<b>10</b>	<b>0.48</b>	<b>0.40</b>
	<b>11</b>	<b>0.52</b>	<b>0.40</b>
	<b>12</b>	<b>0.54</b>	<b>0.44</b>
	<b>13</b>	<b>0.46</b>	<b>0.44</b>
	<b>14</b>	<b>0.54</b>	<b>0.44</b>
	<b>15</b>	<b>0.38</b>	<b>0.36</b>
	<b>16</b>	<b>0.44</b>	<b>0.44</b>
	<b>17</b>	<b>0.32</b>	<b>0.48</b>
	<b>18</b>	<b>0.60</b>	<b>0.40</b>
	<b>19</b>	<b>0.52</b>	<b>0.32</b>
	<b>20</b>	<b>0.50</b>	<b>0.44</b>
	<b>21</b>	<b>0.50</b>	<b>0.44</b>
	<b>22</b>	<b>0.52</b>	<b>0.56</b>
	<b>23</b>	<b>0.52</b>	<b>0.32</b>
	<b>24</b>	<b>0.56</b>	<b>0.40</b>
	<b>25</b>	<b>0.64</b>	<b>0.40</b>
	<b>26</b>	<b>0.32</b>	<b>0.40</b>
	<b>27</b>	<b>0.52</b>	<b>0.40</b>
	<b>28</b>	<b>0.42</b>	<b>0.44</b>
	<b>29</b>	<b>0.52</b>	<b>0.40</b>
	<b>30</b>	<b>0.56</b>	<b>0.48</b>

	Item	Item Difficulty	Item Discriminating Power
	<b>31</b>	<b>0.40</b>	<b>0.40</b>
	<b>32</b>	<b>0.60</b>	<b>0.40</b>
	<b>33</b>	<b>0.38</b>	<b>0.60</b>
Task Two	<b>34</b>	<b>0.54</b>	<b>0.44</b>
		<b>0.66</b>	<b>0.40</b>
	<b>35</b>	<b>0.60</b>	<b>0.40</b>
		<b>0.62</b>	<b>0.44</b>
	<b>36</b>	<b>0.40</b>	<b>0.40</b>
		<b>0.50</b>	<b>0.44</b>
	<b>37</b>	<b>0.64</b>	<b>0.40</b>
		<b>0.64</b>	<b>0.40</b>
	<b>38</b>	<b>0.58</b>	<b>0.44</b>
		<b>0.62</b>	<b>0.32</b>
	<b>39</b>	<b>0.64</b>	<b>0.40</b>
		<b>0.44</b>	<b>0.32</b>
	<b>40</b>	<b>0.54</b>	<b>0.44</b>
		<b>0.70</b>	<b>0.36</b>
	<b>41</b>	<b>0.60</b>	<b>0.40</b>
		<b>0.60</b>	<b>0.40</b>
	<b>42</b>	<b>0.60</b>	<b>0.40</b>
		<b>0.58</b>	<b>0.44</b>
	<b>43</b>	<b>0.68</b>	<b>0.40</b>
		<b>0.60</b>	<b>0.56</b>
	<b>44</b>	<b>0.52</b>	<b>0.40</b>
		<b>0.56</b>	<b>0.32</b>
	<b>45</b>	<b>0.54</b>	<b>0.44</b>
		<b>0.60</b>	<b>0.40</b>
	<b>46</b>	<b>0.56</b>	<b>0.40</b>
		<b>0.54</b>	<b>0.44</b>
	<b>47</b>	<b>0.64</b>	<b>0.32</b>
		<b>0.46</b>	<b>0.44</b>

	<b>Item</b>	<b>Item Difficulty</b>	<b>Item Discriminating Power</b>
	<b>48</b>	<b>0.56</b>	<b>0.40</b>
		<b>0.64</b>	<b>0.32</b>
	<b>49</b>	<b>0.58</b>	<b>0.40</b>
		<b>0.48</b>	<b>0.40</b>
	<b>50</b>	<b>0.60</b>	<b>0.32</b>
		<b>0.66</b>	<b>0.36</b>
	<b>51</b>	<b>0.60</b>	<b>0.40</b>
		<b>0.36</b>	<b>0.40</b>
	<b>52</b>	<b>0.72</b>	<b>0.32</b>
		<b>0.50</b>	<b>0.40</b>
	<b>53</b>	<b>0.48</b>	<b>0.40</b>
		<b>0.64</b>	<b>0.48</b>
	<b>54</b>	<b>0.72</b>	<b>0.40</b>
		<b>0.54</b>	<b>0.40</b>
	<b>55</b>	<b>0.52</b>	<b>0.40</b>
		<b>0.66</b>	<b>0.44</b>
<b>Task Three</b>	<b>56</b>	<b>0.60</b>	<b>0.40</b>
	<b>57</b>	<b>0.58</b>	<b>0.44</b>
	<b>58</b>	<b>0.58</b>	<b>0.36</b>
	<b>59</b>	<b>0.64</b>	<b>0.40</b>
	<b>60</b>	<b>0.52</b>	<b>0.32</b>
	<b>61</b>	<b>0.44</b>	<b>0.40</b>
	<b>62</b>	<b>0.52</b>	<b>0.48</b>
	<b>63</b>	<b>0.56</b>	<b>0.40</b>
	<b>64</b>	<b>0.64</b>	<b>0.40</b>
	<b>65</b>	<b>0.42</b>	<b>0.44</b>
	<b>66</b>	<b>0.66</b>	<b>0.44</b>
	<b>67</b>	<b>0.56</b>	<b>0.40</b>
	<b>68</b>	<b>0.72</b>	<b>0.40</b>
	<b>69</b>	<b>0.70</b>	<b>0.44</b>
	<b>70</b>	<b>0.60</b>	<b>0.40</b>
	<b>71</b>	<b>0.38</b>	<b>0.52</b>

	Item	Item Difficulty	Item Discriminating Power
	72	0.56	0.56
	73	0.36	0.72
	74	0.32	0.40
	75	0.36	0.40
	76	0.58	0.44
	77	0.34	0.52
	78	0.30	0.52
	79	0.36	0.48
	80	0.44	0.40
	81	0.64	0.48
	82	0.72	0.40
	83	0.60	0.48
	84	0.60	0.40
	85	0.68	0.40
	86	0.48	0.40
	87	0.48	0.40
	88	0.68	0.48
	89	0.48	0.40
	90	0.64	0.40
	91	0.42	0.44
	92	0.64	0.40
	93	0.48	0.40
	94	0.70	0.52
	95	0.48	0.40

### 3.7 Test Reliability

Reliability refers to the consistency of scores obtained by the same persons when they are re-examined with the same test on different occasions, or with different sets of

equivalent items, or under other variable examining conditions (Anastasi & Urbina, 1997:84).

ScorePak (2005:3) reflects three characteristics of test reliability:

1. The intercorrelations among the items. The greater the relative number of positive relationships, and the stronger those relationships are, the greater the reliability is.
2. The length of the test. A test with more items will have a higher reliability, all other things being equal.
3. The content of the test. Generally, the more diverse the subject matter tested and the testing techniques used, the lower the reliability is.

Batchman (1990:160) points out that reliability is a requirement for validity, and that the investigation of reliability can be viewed as complementary aspect of identifying, estimating, and interpreting different sources of variance in test scores.

To determine the reliability of the test, a test- retest method was used. Carroll and Hall (1985:118) state that " a simple way to obtain a test-retest reliability index is to find whether the testees are similarly ranked in two successive applications of the test". According to this method, the test is reliable when the scores of the two administrations are corresponding, or there is just a little difference.



The reliability coefficient is obtained by comparing scores of the first administration to those gained from the second one. Person correlation coefficient formula was used to find out the the correlation coefficient, which was (0.87) and this is considered acceptable as a reliability index (Carrol and Hall, 1985:118)

$$r = \frac{N \cdot \sum x \cdot y - (\sum x)(\sum y)}{\sqrt{[N \cdot \sum x^2 - (\sum x)^2][N \cdot \sum y^2 - (\sum y)^2]}}$$

where:

r = the correlation coefficient .

N=the whole number of the tests.

x = the scores of the first test.

y = the scores of the second question.

(Glass & Stanley, 1970: 114)

### **3.8 Final Administratrion of the Test**

The test administration was carried out during the second term of the academic year 2005-2006.

After handing out the test to the testees, the instructions that accompanied each question have been explained in order to clarify the ambiguity that the testees may face when answering the questions.

All students have smoothly answered all items within the time allotted. The responses were corrected by the researcher herself.

### 3.9 Scoring Scheme

For the purpose of objectivity and reliability, an accurate scoring scheme should be developed for the whole test (Al-Hamash et al., 1982:23). Each item is marked either as correct or incorrect, i.e., an item correctly rendered scores (1), and an incorrect rendering item scores (zero) for both Rec and Prod levels. Concerning the items that are left, unanswered by the testees, the answer in this case is considered wrong and is given zero.

### 3.10 Statistical Means

The following statistical methods were used in the analysis and interpretation of the test results:

1-Pearson correlation coefficient formula was used to find out the reliability of the test.

$$r = \frac{N \cdot \sum x \cdot y - (\sum x)(\sum y)}{\sqrt{[N \cdot \sum x^2 - (\sum x)^2][N \cdot \sum y^2 - (\sum y)^2]}}$$

where:

r = the correlation coefficient .

N=the whole number of the tests.

x = the scores of the first test.

y = the scores of the second question.

(Glass & Stanley ,1970:114)

2-T-test formula for one sample is used to find out the level of the sample testees in recognition and production skills : the following formula is used:

$$t = \frac{\bar{X} - M}{S / \sqrt{n}}$$

Where:

t = t-test.

X = mean.

M = theoretical mean.

S = standard deviation.

n = number of subjects.

(Madsen ,1983:170)

3-Percentages of errors each subject have been made in order to find out the distribution of errors and trying to figure out the factors behind the most common types of errors.

### **Notes To Chapter Three**

\*The jury members, are arranged alphabetically, consist of :

1. Prof.Abdul Latif Alwan AL-Jumaily Ph.D,University of Baghdad
- 2.Asst-Prof.Abdul Jabbar A.Darwash Ph.D, University of Al-Mustansiriyah.
- 3.Asst-Prof.Abdullah Salman Abbas ,University of Diyala.
- 4.Asst-Prof.Ayad Hameed Mahmood ,University of Diyala.
- 5.Asst.Prof.Ahmed Mustafa Ph.D ,University of Baghdad.
- 6.Asst-Prof.Estiqlal Hassan Ph.D ,University of Al-Mustansiriyah.
- 7.Asst-Prof.Ali K. Abbas ,University of Al-Mustansiriyah.
- 8.Prof.Bushra Mustafa Noori ,University of Al-Mustansiriyah.
- 9.Asst.Prof.Dhuha Atallah Hassan ,University of Al-Mustansiriyah.
- 10.Asst-Prof.Firas Awad Marouf ,University of Baghdad.
- 11.Asst.Prof.Irfan Saeed ,University of Al-Mustansiriyah.
- 12.Asst .Prof Muyyad M.Said ,University of Baghdad.

\*The statistical methods have been suggested by :

Asst . Prof . Salih Mehdi Salih , Ph.D. College of Education ,  
AL- Mustansiriyah University.



## *CHAPTER FOUR*

# *Data Analysis*

### **4.1 An Introductory Note**

In this chapter the data of the study are discussed with reference to aims and hypothesis set on this investigation. It is concerned with presenting and discussing the results of the test with the use of tables from both statistical and linguistic perspectives. The hypothesis is tested against the subject's responses to the test as a whole by using the t-test formula for one sample and also by using percentages according to subjects and test items.

### **4.2 Overall Performance**

In order to investigate the hypothesis of the study which reads " Iraqi EFL college students fail to recognize and produce words resulted from word formation processes", the performance of the subjects was investigated by using the t-test formula for one sample to specify the ability of the subjects in recognizing and producing words resulted from the processes of word formation.

Table 6 shows the mean score of the subject's performance. The mean is defined as " the average student response to an item. It is computed by adding up the

number of points earned by all students on the item ,and dividing that total by the number of students". (ScorePak 2005 : 1). The higher total test scores should be obtained by students choosing the correct, or most highly weighted alternative(Ibid.).The mean score of the present study is **36.8**.The standard deviation ,or SD. ,is a measure of the dispersion of student scores on that item. That is ,it indicates how " spread out" the responses were. The item standard deviation is most meaningful when comparing items which have more than one correct alternative and when scale scoring is used (Ibid.)The standard deviation of the present study is of **11.6**

The mean score of the subjects at both Rec. and Prod. levels was compared with the theoretical mean **58.5** ,which was computed by using the following formula:

$$\text{Theoretical mean} = \frac{\text{Higher score} + \text{Lower score}}{2}$$

By using the t-test formula for one sample ,it has been found out that the computed t-value is **18.39** whereas the tabulated t-value is **2** at the level of significace **0.05** with a degree of freedom **95** see (Table 6).By compairing the computed t-valuewith the tabulated one,it has been found

out that the computed t value is higher than the tabulated one. Accordingly, the hypothesis is verified.

**Table (6)**  
**Statistical Data – Subjects' Performance in all Tasks**

Sample	Mean	Theoretical Mean	S.D.	Variance	T-Value		D.F.	Levels of Significance
					Comp.	Tabu.		
96	36.8	58.5	11.6	134.6	18.39	2	95	0.05

### 4.3 Performance by Tasks

#### 4.3.1 Task One

The First task of the test concerns itself with the identification of the processes of word formation. Investigation of the performance of the subjects in task one yields the results shown in Table 7 .

The mean score of the subjects performance is **11.7** with the standard deviation of 5 and the theoretical mean of **16.5**.The t-test formula is used to determine whether there is any significant difference between the computed t-value 9.41 and tabulated one 2 at 5 level of significance . It has



been found out that the computed t-value is higher than the tabulated t-value with a degree of freedom **95**. This means that our subjects are somehow able to recognize the processes of word formation.

**Table (7)**

**Statistical Data – Subjects' Performance in Task One**

Sample	Mean	Theoretical Mean	S.D.	Variance	T-Value		D.F.	Levels of Significance
					Comp.	Tabu.		
96	11.7	16.5	5	25	9.41	2	95	0.05

#### **4.3.2 Tasks Two and Three**

Tasks Two and three differ from task one since they represent the productive knowledge. In task two the subjects are asked to produce the original word from which the new word is formed and specify the process involved, while in task three, the subjects are asked to give the new word from the original one.

T-test formula for one independent sample is also used to investigate the subjects' performance in these tasks. Table 8 displays that the mean score is **12.3** with the standard deviation of **5.6** and theoretical mean of **42**. The computed t-value **52.11** is matched with tabulated t-value **2** at the level of significance of **0.05**. Since the computed t-value is higher than the tabulated t-value with a degree of freedom **95** this proves that our subjects are able to produce the original words from the new and the reverse.

**Table (8)**

**Statistical Data – Subjects' Performance in Tasks Two and Three**

Sample	Mean	Theoretical Mean	S.D.	Variance	T-Value		D.F.	Levels of Significance
					Comp.	Tabu.		
96	12.3	42	5.6	31.36	52.11	2	95	0.05

#### **4.4 Performance According to Subjects**

##### **4.4.1 Task One (Recognition level)**

This task is concerned with recognizing the processes of word formation. Below is an explanation of subjects' performance.

#### 4.4.1.1 Identification of the processes of word Formation

In this task ,the subjects are asked to recognize the processes of word formation. The statistical analysis shows the results in percentages as shown in Table 9 below.

The total number of subjects are(96). The subjects who pass the cutting point are only eighteen ,as Table(9) illustrates ,namely 7, 11, 14, 15, 17, 21, 22, 31, 32, 35, 36, 37, 38, 39 ,41, 43, 69 and 89. The cutting point is 50%. This means that the subjects who score(16.5) out of (33) pass the criteria adopted.

Table 9 reveals that four subjects namely (11, 14, 15, 69) gain the higher degrees in this task whose percentages range between 66% and 72% .

The other group of subjects whose percentages range between 60% and 63% are three . They are 7,38 and 43.It has also been found out that the marks of (11) subjects which range between 51% and 57% are able to pass the cutting point. These subjects are 17 , 21 ,22 , 31 , 32, 35 , 36 , 37 , 39 , 41 , and 89. Also ,it has been found out that the results of (16) subjects range between 42% and 48%. These subjects are 5 , 6 , 8 , 13 , 20 , 26 , 7 , 33 , 34 , 46 , 47 , 62 , 63 , 73 , 77 and 90. Other subjects have failed even to attain 40% level , which means that they are unable to distinguish among the processes of word formation.

Table(9)

## Statistical Analysis of Subjects' Performance in Task one

subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
1	10	23	30%
2	12	21	36%
3	12	21	36%
4	10	23	30%
5	15	18	45%
6	16	17	48%
7	20	13	61%
8	15	18	45%
9	8	25	24%
10	13	20	39%
11	23	10	70%
12	12	21	36%
13	16	17	48%
14	24	9	73%
15	22	11	67%
16	6	27	18%
17	17	16	52%
18	12	21	36%
19	7	26	21%
20	15	18	45%
21	17	16	52%
22	18	15	55%
23	10	23	30%
24	6	27	18%
25	11	22	33%
26	14	19	42%
27	15	18	45%
28	9	24	27%
29	12	21	36%
30	13	20	39%
31	19	14	58%
32	17	16	52%
33	14	19	42%
34	15	18	45%
35	18	15	55%

subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
36	18	15	55%
37	19	14	58%
38	21	12	64%
39	19	14	58%
40	9	24	27%
41	18	15	54%
42	5	28	15%
43	20	13	61%
44	12	21	36%
45	6	27	18%
46	15	18	45%
47	15	18	45%
48	12	21	36%
49	12	21	36%
50	5	28	15%
51	5	28	15%
52	7	26	21%
53	4	29	12%
54	11	22	33%
55	12	21	36%
56	12	21	36%
57	7	26	21%
58	13	20	39%
59	10	23	30%
60	6	27	18%
61	9	24	27%
62	15	18	45%
63	15	18	45%
64	8	25	24%
65	6	27	18%
66	7	26	21%
67	12	21	36%
68	6	27	18%
69	22	11	67%
70	11	22	33%
71	7	26	21%
72	2	31	6%
73	8	25	24%

subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
74	13	20	39%
75	5	28	15%
76	4	29	12%
77	16	17	48%
78	12	21	36%
79	10	23	30%
80	5	28	15%
81	10	23	30%
82	5	28	15%
83	7	26	21%
84	10	23	30%
85	2	31	6%
86	6	27	18%
87	11	22	33%
88	10	23	30%
89	18	15	55%
90	16	17	48%
91	8	25	24%
92	11	22	33%
93	10	23	30%
94	5	28	15%
95	6	27	18%
96	11	22	33%

#### 4.4.2 Task Two ( Production level)

This task is concerned with giving the subjects the original word and from which the new word is formed ,and then the process involved is specified. Below is an explanation of the subject's performance.

#### 4.4.2.1 Giving the Original Words (A)

In this part of this task ,the subjects are asked to give the original words from which the new words are formed. The statistical analysis yields the results in percentages as shown in Table 10 below.

Out of the total number of subjects namely(96),eight subjects pass the cutting point which is 50 % as illustrated in Table 10 .These subjects are (22, 27, 43, 44, 54, 67, 74 and 76).

Table 10 also shows that only one subject gains the percentage 63% namely 74 and the results of (7) subjects ranging between 50% and 54% are considered acceptable in giving the original words and they are able to pass the cutting point and reach the degree of success. The percentages of seventeen subjects namely(9, 11, 12, 4, 19, 29, 56, 59, 62, 63, 69, 72, 73, 79, 80, 81 and 93) range between 40% and 45% as shown in Table 10 . Other subjects have failed even to gain the 40% level ,which means that they are unable to identify the original words from which the new words are formed.

**Table(10)****Statistical Analysis of Subjects' Performance in Task Two (A)**

Subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
1	7	15	32%
2	1	21	5%
3	5	17	23%
4	7	15	32%
5	1	21	5%
6	2	20	9%
7	4	18	18%
8	7	15	32%
9	9	13	41%
10	4	18	18%
11	10	12	45%
12	9	13	41%
13	8	14	36%
14	10	12	45%
15	7	15	32%
16	1	21	5%
17	7	15	32%
18	7	15	32%
19	9	13	41%
20	8	14	36%
21	3	19	14%
22	12	10	55%
23	7	15	32%
24	5	17	23%
25	8	15	36%
26	6	16	27%
27	11	11	50%
28	7	15	32%
29	9	13	41%
30	5	17	23%
31	4	18	18%
32	4	18	18%
33	4	18	18%
34	4	18	18%
35	2	20	9%
36	4	18	18%



Subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
37	4	18	18%
38	0	22	0%
39	4	18	18%
40	6	16	27%
41	5	17	23%
42	4	18	18%
43	11	11	50%
44	12	10	55%
45	2	20	9%
46	4	18	18%
47	6	16	27%
48	4	18	18%
49	3	19	14%
50	4	18	18%
51	4	18	18%
52	4	18	18%
53	8	14	36%
54	11	11	50%
55	8	14	36%
56	9	13	41%
57	0	22	0%
58	7	15	32%
59	10	12	45%
60	4	18	18%
61	5	17	23%
62	9	13	41%
63	9	13	41%
64	5	17	23%
65	5	17	23%
66	8	14	36%
67	12	10	55%
68	3	18	14%
69	9	13	41%
70	6	16	27%
71	7	15	32%
72	10	12	45%
73	10	12	45%
74	14	8	64%
75	8	14	36%
76	12	10	55%

Subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
77	8	14	36%
78	6	16	27%
79	10	12	45%
80	9	13	41%
81	9	13	41%
82	2	20	9%
83	3	19	14%
84	1	21	5%
85	2	20	9%
86	6	16	27%
87	6	16	27%
88	5	17	23%
89	5	17	23%
90	5	17	23%
91	6	16	27%
92	6	16	27%
93	9	13	41%
94	8	14	36%
95	3	19	14%
96	6	16	27%

#### 4.4.2.2 Specifying the Process Involved (B)

In the second part of this task , the subjects are asked to specify the type of the process involved in each point.

Table 11 illustrates the performance of the subjects. It is worth mentioning that the subjects performance with percentages 50% and above is considered to have acquired this structure if we adopt a cutting point of 50%.

Table 11 shows that the number of subjects who passed the cutting point 50% according to the criteria adopted is one who attains 68% namely 79. Other

subjects have failed even to attain the 50% level ,which means that they are unable to distinguish between the processes of word formation .Since the number of subjects who satisfy the criteria of acquisition in this respect is only 1.04% of the total sample which is out of (96) ,it is justifiable to conclude that ,in general ,our subjects fail to master this grammatical aspect.

**Table(11)**

**Statistical Analysis of Subjects' Performance in Task Two (B)**

Subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
1	0	22	0%
2	5	17	23%
3	4	18	18%
4	7	15	32%
5	1	21	5%
6	3	19	14%
7	4	18	18%
8	0	22	0%
9	0	22	0%
10	1	21	5%
11	7	15	32%
12	5	17	23%
13	7	15	32%
14	2	20	9%
15	6	16	27%
16	0	22	0%
17	6	16	27%
18	5	17	23%
19	0	22	0%
20	7	15	32%
21	0	22	0%
22	7	15	32%

23	6	16	27%
24	6	16	27%
25	5	17	23%
26	0	22	0%
27	5	17	23%
28	7	15	32%
29	8	14	36%
30	0	22	0%
31	3	19	14%
32	3	19	14%
33	2	20	9%
34	3	19	14%
35	1	21	5%
36	0	22	0%
37	5	17	23%
38	7	15	32%
39	5	18	18%
40	1	21	5%
41	3	19	14%
42	3	19	14%
43	9	13	41%
44	0	22	0%
45	0	22	0%
46	3	19	14%
47	1	21	5%
48	3	19	14%
49	3	19	14%
50	2	20	9%
51	2	20	9%
52	0	22	0%
53	0	22	0%
54	0	22	0%
55	8	14	36%
56	6	16	27%
57	2	20	9%
58	6	16	27%
59	5	17	23%
60	0	22	0%
61	5	17	23%
62	0	22	0%
63	5	17	23%

64	5	17	23%
65	0	22	0%
66	4	18	18%
67	4	18	18%
68	0	22	0%
69	15	7	68%
70	6	16	27%
71	2	20	9%
72	0	22	0%
73	5	17	23%
74	6	16	27%
75	0	22	0%
76	0	22	0%
77	7	15	32%
78	7	15	14%
79	3	19	14%
80	0	22	0%
81	2	20	9%
82	2	20	9%
83	2	20	9%
84	0	22	0%
85	0	22	0%
86	0	22	0%
87	0	22	0%
88	0	22	0%
89	0	22	0%
90	3	19	14%
91	1	21	5%
92	0	22	0%
93	0	22	0%
94	0	22	0%
95	0	22	0%
96	2	20	9%

#### 4.4.2.3 Overall Performance in Task Two

The overall performance of subjects in task two which includes parts A and B are illustrated in Table 12 below. The results of the students in giving the original words from which the new words are formed and in specifying the type

of the process involved in order to know whether they master this aspect or not.

The results in Table 12 shows that only one subject passed the cutting point namely (50%) which means that the subjects who score (22) out of (44) is said to have satisfied the criteria. The subject namely (69) has got the successful score of 50 plus. Its percentages is 54%.

Again ,since the number of subjects who reach the mastery level is very low ,it is safe to conclude that our subjects' level in mastering this morphological aspect of English is weak .

**Table(12)**

**Statistical Analysis of Subjects' Performance in Task Two**

Subjects	Overall of identification Part A		Percentage	Overall of Identification Part B		Percentage	Overall Performance	
	Correct items	In - correct Items		Correct items	In- correct Items		Total	Perce.
1	7	15	32%	0	22	0%	7	16 %
2	1	21	5%	5	17	23%	6	14 %
3	5	17	23%	4	18	18%	9	20%
4	7	15	32%	7	15	32%	14	32%
5	1	21	5%	1	21	5%	2	5%
6	2	20	9%	3	19	14%	5	11%
7	4	18	18%	4	18	18%	8	18%
8	7	15	32%	0	22	0%	7	16%
9	9	13	41%	0	22	0%	9	20%
11	4	18	18%	1	21	5%	5	11%
12	10	12	45%	7	15	32%	17	39%
13	9	13	41%	5	17	23%	14	32%
14	8	14	36%	7	15	31%	15	34%
15	10	12	45%	2	20	9%	12	27%

16	7	15	32%	6	16	27%	13	30%
17	1	21	5%	0	22	0%	1	2%
18	7	15	32%	6	16	27%	13	30%
19	7	15	32%	5	17	22%	9	20%
20	9	13	41%	0	22	0%	15	34%
21	8	14	36%	7	15	32%	3	6%
22	3	19	14%	0	22	0%	19	43%
23	12	10	55%	7	15	32%	13	30%
24	7	15	32%	6	16	27%	11	25%
25	5	17	23%	6	16	27%	13	30%
26	8	15	36%	5	17	23%	6	14%
27	6	16	27%	5	17	23%	16	36%
28	11	11	50%	7	15	32%	14	32%
29	7	15	32%	8	14	36%	17	39%
30	9	13	41%	0	22	0%	5	11%
31	5	17	23%	3	19	14%	7	16%
32	4	18	18%	5	17	23%	7	16%
33	4	18	18%	7	15	32%	6	14%
34	4	18	18%	8	14	36%	7	16%
35	2	20	9%	0	22	0%	3	6%
36	4	18	18%	3	19	14%	4	9%
37	4	18	18%	5	17	23%	9	20%
38	0	22	0%	7	15	32%	7	16%
39	4	18	18%	5	18	18%	8	18%
40	6	16	27%	1	21	5%	7	16%
41	5	17	23%	3	19	14%	8	18%
42	4	18	18%	3	19	14%	7	16%
43	11	11	50%	9	13	41%	20	45%
44	12	10	55%	0	22	0%	12	27%
45	2	20	9%	0	22	0%	2	5%
46	4	18	18%	3	19	14%	7	16%
47	6	16	27%	1	21	5%	7	16%
48	4	18	18%	3	19	14%	7	16%
49	3	19	14%	3	19	14%	6	14%
50	4	18	18%	2	20	9%	6	14%
51	4	18	18%	2	20	9%	6	14%
52	4	18	18%	0	22	0%	4	9%
53	8	14	36%	0	22	0%	8	18%
54	11	11	50%	0	22	0%	11	25%
55	8	14	36%	8	14	36%	16	36%
56	9	13	41%	6	16	27%	15	34%
57	0	22	0%	2	20	9%	2	5%

58	7	15	32%	6	16	27%	13	30%
59	10	12	45%	5	17	23%	15	34%
60	4	18	18%	0	22	0%	4	9%
61	5	17	23%	5	17	23%	10	23%
62	9	13	41%	0	22	0%	9	20%
63	9	13	41%	5	17	23%	14	32%
64	5	17	23%	5	17	23%	10	23%
65	5	17	23%	0	22	0%	5	11%
66	8	14	36%	4	18	18%	12	27%
67	12	10	55%	4	18	18%	16	36%
68	3	18	14%	0	22	0%	3	6%
69	9	13	41%	15	7	68%	24	55%
70	6	16	27%	6	16	27%	12	27%
71	7	15	32%	2	20	9%	9	20%
72	10	12	45%	0	22	0%	10	23%
73	10	12	45%	5	17	23%	15	34%
74	14	8	64%	6	16	27%	20	45%
75	8	14	36%	0	22	0%	8	18%
76	12	10	55%	0	22	0%	12	27%
77	8	14	36%	7	15	32%	15	34%
78	6	16	27%	7	15	32%	13	30%
79	10	12	45%	3	19	14%	13	30%
80	9	13	41%	0	22	0%	9	20%
81	9	13	41%	2	20	9%	11	25%
82	2	20	9%	2	20	9%	4	9%
83	3	19	14%	2	20	9%	5	11%
84	1	21	4%	0	22	0%	1	2%
85	2	20	9%	0	22	0%	2	5%
86	6	16	27%	0	22	0%	6	14%
87	6	16	27%	0	22	0%	6	14%
88	5	17	23%	0	22	0%	5	11%
89	5	17	23%	0	22	0%	5	11%
90	5	17	23%	3	19	14%	8	18%
91	6	16	27%	1	21	5%	7	16%
92	6	16	27%	0	22	0%	6	14%
93	9	13	41%	0	22	0%	9	20%
94	8	14	36%	0	22	0%	8	18%
95	3	19	14%	0	22	0%	3	7%
96	6	16	27%	2	20	9%	8	18%



#### 4.4.3 Task Three ( Production level)

In this task the students are asked to give the new word from the original one.

As Table 13 illustrates ,the subjects who pass the cutting point are twenty nine ,namely2, 3, 11, 13, 17, 28, 38, 39, 41, 43, 52, 54, 55, 58, 61, 62, 66, 67, 69, 70, 77, 80, 81, 88, 91, 92, 94, 95 and 96. Since the score of this task is out of (40), a subject has to score (20) in order to attain the acquisition level.

Eight subjects namely3, 38, 43, 61, 69, 91 and 95 as Table 13 illustrates, have gained in percentages between 67% and 80%.

Next ,six subjects whose percentages range between 65% and 60% are successful and follow the first group. These subjects are 2 , 11 , 28 , 41 , 81 and 94. It has also been found out that the marks of fifteen subjects range between 57% and 50% are considered acceptable in stating the function of the task and they are able to pass the cutting point. These subjects are 13 , 17 , 39 , 52 , 54 , 58 , 62 , 66 , 67 , 70 , 77 , 80 , 88 , 92 and 96 .Other subjects failed even to attain the 50% level ,which means that they are unable to produce new words related to the processes of word formation.

**Table (13)**  
**Statistical Analysis of Subjects' Performance in Task Three**

Subjects	Overall of identification		The percentage
	Correct items	Incorrect items	
1	17	23	43%
2	24	16	60%
3	31	9	78%
4	7	33	18%
5	9	31	23%
6	12	28	30%
7	12	28	30%
8	14	26	35%
9	12	28	30%
10	8	32	20%
11	25	15	63%
12	9	31	23%
13	20	20	50%
14	13	27	33%
15	14	26	35%
16	6	34	15%
17	21	19	53%
18	16	24	40%
19	10	30	25%
20	13	27	33%
21	5	35	13%
22	16	24	40%
23	16	24	40%
24	15	25	38%
25	17	23	43%
26	15	25	38%
27	17	23	43%
28	26	14	65%
29	8	32	20%
30	10	30	25%
31	4	36	10%
32	8	32	20%
33	19	21	48%
34	19	21	48%
35	7	33	18%
36	12	28	30%
37	10	30	25%

38	32	8	80%
39	23	17	58%
40	19	21	48%
41	24	16	60%
42	6	34	15%
43	28	12	70%
44	16	24	40%
45	11	29	28%
46	10	30	25%
47	7	33	18%
48	10	30	25%
49	10	30	25%
50	14	26	35%
51	9	31	23%
52	22	18	55%
53	17	23	43%
54	21	19	53%
55	27	13	68%
56	14	26	35%
57	13	27	33%
58	20	20	50%
59	12	28	30%
60	5	35	13%
61	28	12	70%
62	20	20	50%
63	19	21	48%
64	17	23	43%
65	14	26	35%
66	20	20	50%
67	23	17	58%
68	8	32	20%
69	32	8	80%
70	20	20	50%
71	9	31	23%
72	15	25	38%
73	7	33	18%
74	16	24	40%
75	15	25	38%
76	17	23	43%
77	23	17	58%
78	17	23	43%

79	12	28	30%
80	21	19	53%
81	25	15	63%
82	16	24	40%
83	17	23	43%
84	17	23	43%
85	16	24	40%
86	11	29	28%
87	7	33	18%
88	20	20	50%
89	17	23	43%
90	15	25	38%
91	28	12	70%
92	21	19	53%
93	3	37	7%
94	24	16	60%
95	28	12	70%
96	23	17	58%

#### 4.5 Performance According to Test Items.

This section deals with the analysis of results according to the test tasks. It presents the results in percentages of correct answers to each item in the test. These results are organized in a descending order to see which item is acquired by the subjects according to the adopted criteria.

##### 4.5.1 Task One ( Recognition)

The first task of the test deals with recognizing the processes of word formation .

Table 14 displays the rank order in percentages of the correct answers . The results revealed that items range

between 62% and 12% . It is worth noting that the level of acquisition is attained by four items, since the level is 50%.

Items **OPEC** , **math** ,**OK** and **busyboy** with percentages of 62% , 57%,56% and 51% respectively are correctly and easily answered by our study subjects. These items belong to the processes of **acronymy** , **clipping** , **acronymy** and **compounding** respectively .The results above indicate that the first and the third items belong to **acronymy** process.The main reason for such result may be due to the fact that **acronym** word is a word formed from the initial letters of two or more successive words (Matthews, 1997:6) So,it is clear for the subjects that **acronym** word consists of a group of letters even if they are not aware of its meaning.The slot for the second easiest group of items are occupied by two items No. 33 and No. 15 with the percentages of 47% and 46%. These words belong to the processes of **clipping** and **compounding** . This means that these processes are somehow clear to the subjects in comparison with other processes .

The result in Table 14 also indicate that difficult items which range between 45% and 22% are lower on the scale of learning than the previous group of items. This

result may be due to the fact that not all the processes of word formation go on a regular way, some or most of them are irregular and depend on memorization. Bauer (1983:1) states that "irregular cases are treated as outside the scope of rules, and are instead explicitly memorized. This allows the remaining regular cases to be accounted for using a relatively simple set of deterministic principles (e.g. rules, parameters, constraints)."

The third and last group which is represented by items 21, 3, 25 and 31 got lower percentages than the other groups and range between 20% and 12%. It is clear that the members of this group fail to reach even the medium level of acquisition.

It is worth noting that the last group consists of four items which read as follows:

**Item 21 – bridegome**

**Item 3– Frankfurter**

**Item 25 – teleplay**

**Item 31 – baloney**

The first item belongs to the process of **folk etymology** and this term comes to mean an "explanation" of the meaning of the word based on its superficial similarity to other words and not on its morphology, documented history or scientifically reconstructable past forms.

(Wikipedia " folk etymology " , 2005 : 1). The subjects may not have the ability to interpret the relation between the original word and the new one. The second and the fourth items belong to the process of **antonomasia** which means as Stageberg and Oaks(2000:134) state "the formation of a common noun , a verb , or an adjective from a name of a person or place. Also , names from history and literature have given us many common nouns" . As a result , the word that comes from such process may be related to a specific place or person that the students have not knowing it yet . The third item related to the process of **derivation** and it is worth noting here that this process is not ambiguous but the difficulty of this item may be due to word itself (**teleplay**) that represents the item . The prefix (**tele**) may be used as a prefix as in this word and it can also be used in processes such as **blending** , in words like **telephon + broadcast = telecast** . However , the subjects fail to identify which one of these words is **derivation** .

According to the results mentioned in Table 14 and with reference to the criteria adopted of acquisition,it has been found that only four items attained the level of acquisition .They are **busyboy, OK, math, OPEC**.

**Table (14)**  
**Statistical Analysis of Items in Task One**

<b>Rank Order</b>	<b>Items</b>	<b>Correct answer</b>	<b>Percentage</b>	<b>InCorrect answer</b>	<b>Percentage</b>	<b>The Type of the process</b>
1	17	60	63%	36	38%	acronymy
2	26	55	59%	41	43%	clipping
3	29	54	56%	42	44%	acronymy
4	1	49	51%	47	49%	compounding
5	33	46	48%	50	52%	compounding
6	15	45	47%	51	53%	back formation
7	18	44	46%	52	54%	echoism
8	7	43	45%	53	55%	acronymy
9	5	42	44%	54	56%	clipping
10	22	41	43%	55	57%	invention
11	24	40	42%	56	58%	compounding
12	13	38	40%	58	60%	antonomasia
13	12	37	39%	59	61%	reduplication
14	9	34	35%	62	65%	folk-etymology
15	11	34	35%	62	65%	echoism
16	23	34	35%	62	65%	echoism
17	28	34	35%	62	65%	folk-etymology
18	14	32	33%	64	67%	derivation
19	20	31	32%	65	68%	blending
20	27	31	32%	65	68%	blending
21	10	30	31%	66	69%	invention
22	4	29	30%	67	70%	derivation
23	8	29	30%	67	70%	blending
24	19	29	30%	67	70%	invention
25	32	27	28%	69	72%	reduplication
26	6	26	27%	70	73%	back formation
27	16	25	26%	71	74%	blending
28	2	22	23%	74	77%	reduplication
29	30	21	22%	75	78%	back formation
30	21	19	20%	77	80%	folk-etymology
31	3	14	15%	82	85%	antonomasia
32	25	14	15%	82	85%	derivation
33	31	12	13%	84	88%	antonomasia



#### 4.5.2 Task Two (production)

Task two is designed to measure the ability of the subjects to give the original word from which the new word is formed and then specify the process involved.

A detailed analysis of the subjects performance on the production level is given in Table 15 below .It is worth noting here that Table 15 represents the subjects' performance in task two ( part A) which is related to giving the students the original words.

This phenomenon (**clipping**) in item No.3 (**exam**) is quite obvious in which our subjects attained the level of aquisition and this word is familiar to them.

In the second group of items 14,1 and 22 which range between 59% and 50% the level of acquisition is also attained.

**Table (15)**  
**Statistical Analysis of Items in Task Two (A)**

<b>Rank Order</b>	<b>Items</b>	<b>Correct answer</b>	<b>Percentage</b>	<b>InCorrect answer</b>	<b>Percentage</b>	<b>The Type of the process</b>
1	3	76	79%	20	21%	clipping
2	14	57	59%	39	41%	back formation
3	1	49	51%	47	49%	reduplication
4	22	48	50%	48	50%	invention
5	13	43	45%	53	55%	reduplication
6	7	40	42%	56	58%	blending
7	2	35	36%	61	64%	compounding
8	6	32	33%	64	67%	back formation
9	16	30	31%	66	69%	echoism
10	18	30	31%	66	69%	derivation
11	8	29	30%	67	70%	acronymy
12	9	27	28%	69	72%	echoism
13	10	27	28%	69	72%	invention
14	12	25	26%	71	74%	antonomasia
15	4	23	24%	73	76%	derivation
16	5	21	22%	75	78%	antonomasia
17	17	15	16%	81	84%	compounding
18	11	10	10%	86	90%	folk etymology
19	20	2	2%	94	98%	blending
20	15	0	0%	96	100%	acronymy
21	19	0	0%	96	100%	clipping
22	21	0	0%	96	100%	folk etymology

The picture is different with the items 13, 7, 2, 6, 16, 18 and 8, which range between 44% and 30%. These items are lower on the scale of learning than the previous group of items. This indicates that our subjects are not aware of these processes and the formation of new words in English is an arbitrary matter as Kharma and Hajjaj (1989:37) state

" one quite cause of mistakes is the fact that the combination of affixes and roots in English to change a verb into a noun or a noun into an adjective etc. is quite arbitrary".

The last group which is represented by items 15 , 19 , and 21 got lower percentages of 0%.

It is evident that the members of this group fail completely to master even one process from the processes of word formation. These items read as follows:

**Item 15 – radar**

**Item 19 – ad**

**Item 21 – netball**

These words belong to the process of **acronymy** ,**clipping** and **folk etymology** .The first word of this group (**radar**) is acronymized from **radio detecting and ranging**. The reason behind such result may be due to the fact that "acronyms tend to abound in large organization ,for instance ,in the army ,in government and in big businesses" (Stageberg ,2000 : 31) .Pyles ( 1971 : 301) tries to limit the difficulty of this process when he says" they are not always easy to recognize ,especially by those unfamiliar with the inventors, the manufacturer's name or with the story of naming" .

It is worth noting , as shown in Table 15, that advertisement with percentages of 79% represents the rank on study scale is easily answered by our subjects .The word **ad** is the clipped form of the word **advertisement** which is used in media and absolutly not in schools .Item No. 21 **netball** represents the process of **folk etymology** is difficult for the subjects since it occupies 22 rank with the percentages of 0%.The words resulted from this process are above the level of subjects because as we have said previously they are based on the superficial similarity to other words and not on its morphology. Also ,the difficulty of this process may be due to what Stageberg and Oaks (2000: 134) state " they are established in the speech of particular individuals but are not widespread enough among speakers of a language to necessitate changes within a dictionary".

Table 16 shows the decending order of the items in prat B of task two . The results reveal that the items range between 33% and 2% . It is worthy to note that the acquisition level ( mastery of identifying the processes of word formation ) is never attained by the subjects.

**Table (16)**  
**Statistical Analysis of Items in Task Two (B)**

<b>Rank Order</b>	<b>Items</b>	<b>Correct answer</b>	<b>Percentage</b>	<b>InCorrect answer</b>	<b>Percentage</b>	<b>The Type of the process</b>
1	8	32	33%	64	67%	acronymy
2	19	26	27%	71	74%	clipping
3	22	22	23%	74	77%	invention
4	3	20	21%	76	79%	clipping
5	20	19	20%	77	80%	blending
6	1	18	19%	78	81%	reduplication
7	15	17	18%	79	82%	acronymy
8	18	17	18%	79	82%	derivation
9	4	14	15%	82	85%	derivation
10	2	13	14%	83	86%	compounding
11	7	12	13%	84	88%	blending
12	17	11	11%	85	89%	compounding
13	5	10	10%	86	90%	antonomasia
14	14	9	9%	87	90%	Back formation
15	9	8	9%	88	92%	echoism
16	12	8	9%	88	92%	antonomasia
17	16	8	9%	88	92%	echoism
18	13	7	7%	89	93%	reduplication
19	6	6	6%	90	94%	Back formation
20	11	5	5%	91	95%	Folk etymology
21	10	4	4%	92	96%	invention
22	20	2	2%	94	98%	blending

|

Consequently, it is plain that part B in the level of production is more difficult than part A since none of the items in task two (part B) attained the level of acquisition (mastering the production level) according to the criteria adopted before .

### 4.5.3 Task Three ( production level)

In this task , the range order for the percentages of the correct answers is shown in Table 17 . The results reveal that items range between 86% and 0% . It is worth noting that the acquisition here is attained by scoring 50% and above.

Table 17 also illustrates that the first group of items consisting of items 23 ,22 ,24 ,19 ,6 ,10 ,16 ,18 and 20 range between 86% and 65% respectively . This indicates that there is a tendency among our subjects to respond these morphological structures and attain the level of acquisition adopted. . These items read as follows:

**Item 23 – child**

**Item 22 – happy**

**Item 24 – kind**

**Item 19 – military police**

**Item 6 – break , fast**

**Item 10 – wall , paper**

**Item 16 – Mothers Against Drunk Driving**

**Item 18– recreational vehicle**

The above mentioned items represent the processes of **derivation** , **acronymy** and **compounding** . It has been found out that the process of derivation is easily acquired in comparison with other processes..

In the second group of items , namely 8,25,7,21 and 17 which range between 59% and 50% the level of acquisition is attained which means that these items are also mastered and they are acceptable.

The results as displayed in Table 17 reveal that the third group of items which range between 42% and 12% are difficult. This result may be derived from the fact that the rules of word formation are "inherently semi productive" (Bauer , 1983 : 3) . This semi productivity seems to confused the subjects since they have not a fixed idea concerning these processes and they can not generalize . This result supports Bauer's claim that "semi productivity is an issue of performance,not competence" . However , the subjects fail to produce new words of different processes of word formation.

The fourth and last group which is represented by items 33,32,35,38,31 and 34 got lower percentages than the other groups and range between 7% and 0% . It is evident that the members of this group fail completely to reach the mastery level of acquisition.

It is worth noting that items of the last group represents the process of **folk etymology** except for item 38 that represents the process of **reduplication** which reads as follows:

### **Item 38 – fuddy**

The results above indicate that the process of **folk etymology** is the most difficult process in task three and only fourteen items in task three attained the level of acquisition (mastering the production level) according to the criteria adopted . The main reason for such difficulty may be due to the fact that folk etymology is " a popular but false notion of the original word" (Call, 1997: 1) .So in this process the subjects must use popular words that acquire from life and it seems that this rule is not suitable for foreign learners since they are foreigners , not natives.

only fourteen items in task three attained the level of acquisition (mastering the production level) according to the criteria adopted .



**Table (17)**  
**Statistical Analysis of Items in Task Three**

<b>Rank Order</b>	<b>Items</b>	<b>Correct answer</b>	<b>Percentage</b>	<b>InCorrect answer</b>	<b>Percentage</b>	<b>The Type of the process</b>
1	23	83	86%	13	14%	derivation
2	22	78	81%	18	19%	derivation
3	24	76	79%	20	21%	derivation
4	19	71	74%	25	26%	acronymy
5	6	68	71%	28	29%	compounding
6	10	67	70%	29	30%	compoundin
7	16	67	70%	29	30%	acronymy
8	18	66	69%	30	31%	acronymy
9	20	63	66%	33	34%	acronymy
10	8	57	59%	39	40%	compounding
11	25	52	54%	44	45%	derivation
12	7	49	51%	47	49%	compounding
13	21	49	51%	47	49%	derivation
14	17	48	50%	48	50%	acronymy
15	5	41	43%	55	57%	clipping
16	36	41	43%	55	57%	reduplication
17	3	39	41%	57	59%	clipping
18	15	36	38%	60	62%	blending
19	28	35	36%	61	63%	back formation
20	1	33	34%	63	66%	clipping
21	11	33	34%	63	66%	blending
22	13	33	34%	63	66%	blending
23	29	31	32%	65	68%	back formation
24	4	30	31%	66	69%	clipping
25	9	30	31%	66	69%	compounding
26	37	30	31%	66	69%	reduplication
27	39	29	30%	67	70%	reduplication
28	26	28	29%	68	71%	back formation
29	27	28	29%	68	71%	back formation
30	2	27	28%	69	72%	clipping
31	14	27	28%	69	72%	blending
32	30	21	22%	75	78%	back formation
33	12	20	21%	76	79%	blending

Rank Order	Items	Correct answer	Percentage	InCorrect answer	Percentage	The Type of the process
34	40	12	13%	84	88%	reduplication
35	33	7	7%	89	93%	folk-etymology
36	32	4	4%	92	96%	folk-etymology
37	35	4	4%	92	96%	folk-etymology
38	38	4	4%	92	96%	reduplication
39	31	1	1%	95	99%	folk-etymology
40	34	0	0%	96	100%	folk-etymology

#### 4.6 Subjects' Performance By Type of Knowledge

In order to achieve the second aim of the study , namely , establishing a hierarchy of difficulty among linguistic levels , recognition and production . Two types of knowledge recognition and production are analyzed . It is necessary to find out whether there is a correlation between these two types of knowledge in the data under investigation . For this purpose all three tasks have been taken. Task one which represent recognition level and task two and three of a production level . Pearson Correlation Coefficient formula is applied among all three tasks.

#### **4.6.1 Recognition \_ Production**

A comparison of two types of knowledge , recognition and production is made by using task one (recognition level) on one hand and task two and three (both are production) on the other. Pearson correlation coefficient is used to find out if there is any relation between the tasks. The results shows that the correlation is (0.56) . This means that the relation between the two levels are somehow good and it also means that the recognition task is the base for the production one. When the subjects are able to recognize items in the recognition task, they easily answer the production task.

## ***CHAPTER FIVE***

# ***Conclusions, Recommendations, Suggestions for Further Studies***

### **5.1 Conclusions**

The major findings of the present study are the following :

1. Our subjects' mastery of this type of vocabulary is markedly poor , since most subjects are not aware of the pertinent rules that can be readily applied to words which represent different processes and the mechanism of application does not yet work automatically .
2. The matter of dealing with the processes of word formation is a matter of performance, not competence. This is because each process has its own way of forming words. So, they depend on performance because most of them are outside the scope of rules and the student has no alternative but to memorize each word as he comes across it.
3. Familiarity of the word is highly correlated with the high frequency of the process in the material Iraqi EFL learners

are exposed to. In other words, the popularity of the word play a crucial part in the learners' knowledge of such words.

4. Sociological factors influence the overall achievement of Iraqi EFL learners in learning some processes of word formation such as the processes of **antonomasia** and **folk etymology** in that they both related to student's background knowledge of specific places and persons.

5. According to subjects' responses, the process of **folk etymology** is the most difficult process in production task and the process of **antonomasia** in the recognition task.

6. Task two is the most difficult task according to subjects and items .

7. There is a good relation between recognition and production tasks. Recognition task is an introductory step for the production tasks.

8. Very few subjects are able to pass the criteria adopted for acquisition, and other few subjects are very close to the cutting piont.

## 5.2 *Recommendations*

On the basis of the conclusions drawn above, a number of pedagogical implications and recommendations can be put forward:

1. The present study on processes of word formation provide some interesting pedagogical implications for the instruction of this structure. If one of the goals of teaching syntax is to provide students with materials and tasks with which they can be assured of having more success. Teachers, syllabus designers can arrange these processes in a hierarchy of difficulty. Therefore, teachers could present less difficult structures before more complex ones.
2. The result of the present study have some implications on teaching English as a foreign language. It is necessary for teachers, syllabus designers to these processes of word formation relevant to actual situation. Most teachers are faced with the problem of the student who has learned grammatical construction but what is needed is to present grammar or any structure not as absolute rules and patterns, but to devote more effort by showing students how these patterns, processes and structures may be appropriate at some times and not at others.

3. Special exercises and dialogues should be devised by teachers and textbook writers in which new words are contextualised.
4. Special attention should be paid for teaching words resulted from the processes of word formation to help advanced learners to deal with the kind of English used by native speakers.
5. The presentation of roots first and then the new words will help in the process of inferring meaning.
6. Teachers should pay more attention to the use of indirect means and techniques of vocabulary expansion.
7. Teachers should emphasize on words that are more common and familiar to the learners.
8. Teachers should introduce one or more words each time a root accurs.

To achieve the third aim of the study which reads as follows: ***suggesting remedial work for the alleviation of the difficulties***, and according to the results arrived at in this study , a remedial work for teaching derivation process, as a sample of English word formation, has been prepared by the researcher to facilitate learning and teaching derivation.

Derivation is the process by which affixes combine with roots to create new words. Derivation is viewed as using existing words to make new words. The inflection derivation difference is increasingly viewed as shades of gray rather than an absolute boundary. Derivation is much less regular, and therefore much less predictable, than inflectional morphology.

A great strategy for learning to distinguish between inflectional and derivational affixes is to memorize the eight inflectional suffixes, not just the spelling but the meanings as well. Obviously, all the rest of the affixes will be derivational. This division between inflectional and derivational correlates directly with a difference in how the two types of affixes are taught. Inflectional suffixes, not surprisingly, end up being learned as part of the acquisition of the basic grammar or syntax of the language. The word forming affixes and the derivational affixes being far less general end up being learned (if they are ever really learned) much as new vocabulary words are learned; that is, they are learned more than one at a time as the learner runs across individual words than as a productive general rule.



***Identifying some morphemes: Common roots.***

This exercise is to give the subjects some practices identifying morphemes they run into everyday.

***Exercise One:*** Divide off the morpheme with the core of the words meaning using slashes (/). This morpheme, is often called the root or base.

hydrant	biology	corpulent
hydrate	biopsy	corps
dehydration	biography	corporation

***Classifying morphemes:Prefixes , Root, and Suffixes.***

Making the subjects realize that the morpheme is a unit of meaning, not a unit of pronunciation. For instance, the word cats has two morphemes:cat + s,with cat being the root and –s being a plural marking suffix. Cats, however,consists of only one syllable.

***ExerciseTwo (A) :*** Divide the following words into morphemes,and then write the morphemes under prefix (P), root (R),or suffix (S),as appropriate.

	prefix	root	suffix
example			
undone	un-	done	

words	.....	.....	.....
taster	.....	.....	.....
policman	.....	.....	.....

**(B)** Look at the following group of words and try to decide in each case what the base word is. Then try to guess the meaning of each word .

discomfort	uncomfortable
comfortable	comforting

decision	decisive
undecided	indecisive
indecision	

### ***Derivational Versus Inflectional***

Telling them that the following words are made up of either one , two, or more morphemes.

***Exercise Three:*** Isolate the morphemes and decide for each morpheme if it is a (R) root,a (D) derivational affix, or and (I)inflectional suffix.

Examples:	photographically	reflections
	photo-graph-ic-al-ly	re-flect-ion-s
	R-R-D-D-D	D-R-D-I
	derivational	derivational
	prefix	suffix
	root(s)	inflectional
		suffix

replayed      re-                      play                      -ed

reconnections

informality

graphically

### ***Determining the meaning of derivational affixes***

English has a large number of derivational affixes, many of which change one part of speech into another. Try to produce a formula like ***noun + ly = adjective*** for each group of words.

***Exercise Four*** : Determine (i) what part of speech the root words were before the affix was added and (ii) what part of speech the words are after the affix has been added .

1. -less:      hopeless, homeless, thoughtless, senseless

..... + less = .....

2. -ion:      deviation, rotation repression, rejection

..... + -ion = .....

3. -ity:      morality, sensitivity, activity, irresponsibility

..... + -ity = .....

4. -ize:      victimize, characterize, colonize, symbolize

..... + -ize = .....

5. -ive:      impressive, reactive, interruptive, conclusive

..... + -ive = .....

### **Mixed morphemes**

These exercises require sorting out various types of morphemes. Some look alike but are actually different; some look different but are actually the same.

**Exercise Five (A):** In each group, one word has no suffix whatsoever; after this word, write none. One has a suffix that is different from the other two remaining suffixes; after this suffix, write different. The remaining two have suffixes that are the same in meaning, if not spelling; after these, write same.

a. rider .....

    colder .....

    silver .....

    actor .....

b . tresses .....

    melodies .....

    Bess's .....

    guess .....

**(B)** Look at the words in **bold** in the following sentences and see if you guess what they mean.

1. Local residents are calling for the police to crack down on **antisocial** behaviour by troublemakers, some of whom are as young as ten.

2. **E-commerce** now accounts for 84 percent of the company's sales.
  3. The machines are very user **friendly** and they tell you how hard you are working and how many calories you have used up.
  4. The new district health boards will be required to act in an efficient **businesslike** way.
- 

Eastwood,2002:369

The English Word Formation System(2-3-4-5)

Potter,2004:1-2

### 5.3 ***Suggestions for Further Studies***

The following suggestions are found to be suitable for further investigation:

1. An experimental study can investigate the effect of using certain strategies of teaching English word formation processes.
2. A study is needed to assess student's performance in lexical relations.

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