Journal of Social Sciences (COES\&RJ-JSS)
ISSN (E): 2305-9249 ISSN (P): 2305-9494
Publisher: Centre of Excellence for Scientific \& Research Journalism
Online Publication Date: $1^{\text {st }}$ July 2013
Online Issue: Volume 2, Number 3, July 2013
http://www.centreofexcellence.net/J/JSS/JSS Mainpage.htm

# $\mathbf{L}_{2}$ Learners' Performance in Three Language Skills: Focus on Sex-Related Differences 

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#### Abstract

It is a generally accepted fact in $L_{1}$ acquisition that females enjoy a rate advantage, initially at least. However, I know of no study that has systematically investigated the rate of second language acquisition (SLA) in females versus males. It might be safe to cite few SLA studies: Farhady, 1982; Eisenstein, 1982; Lakoff, 1973; Zimmerman and West, 1975; and Gass and Varonis, 1986. Although these studies reported sex-related differences, they were incidental to their main focus.

The subjects for the present study are 180 students in the Department of English, Faculty of Arts, Minufiya University, Egypt. They are divided into three groups according to their academic status in their university: Beginners (60); Intermediate (60); and advanced (60). Each group is equally divided into males (30), and females (30). Accordingly, the total number of males is 90 , and that of females is 90 , as well. All subjects performed three tasks: 1) listening; 2) reading, and 3) structure and written expressions, similar, to those used in the TOEFL test. The overall umbrella, under which all these tasks are designed, is 'systematicity'; and/or 'variability'; and whether learners' sex is responsible for it. Results are obtained and conclusions are made.


Keywords: Variability; $\mathrm{L}_{2}$ learners' proficiency, sex.
Citation: Hosni Mostafa El-dali, "L $L_{2}$ Learners' Performance in Three Language Skills: Focus on Sex-Related Differences", (2013), Journal of Social Sciences (COES\&RJ-JSS), Vol.2, No.3, pp:114-138.

## 1. Introduction

Although I know of no study that has systematically investigated the rate of second language acquisition (SLA) in females versus males, it is a generally accepted fact in first language ( $\mathrm{L}_{1}$ ) acquisition that females enjoy a rate advantage, initially at least. It is possible, however, to cite a few SLA studies that have reported sex-related differences incidental to their main focus. For example, Farhady (1982) found that female subjects significantly outperformed male subjects on a listening comprehension test in his study of 800 university students who were obliged to take a placement test. Eisenstein (1982) also showed that females performed significantly better than males on a dialect discrimination task and in the extent to which they could recognize dialects of greater or lesser prestige. (See Anne Brooks, 2009; Basturkment et al., 2004; Beare \& Bourdages, 2007).

In addition to differences in proficiency or dialect discrimination, other sex-linked differences which might affect SLA have been noted. Lakoff (1973) suggests the existence of a 'woman's language', which is replete with hedging devices such as question tags. It has also been noted that males tend to interrupt more than females (Zimmerman and West 1975, cited in Gass and Varcinis 1986).

In one SLA study which did not investigate rate of acquisition differences between the sexes but did study the conversational behaviour of male and female second language learners, Gass and Varonis (1986) found that men dominated the conversations. The researchers concluded, therefore, that men received more speaking practice in such interactions; however, since women initiated more meaning negotiations than men, women may have benefited from receiving more comprehensible input (Freeman and Long, 1991; Brantmeier, 2004, 2003; Trenkic; Kissau, 2007).

The present study is a modest attempt to examine the variations in the proficiency of adult learners (male and females) of English. The overall umbrella, under which this study is designed, is "systematicity or variability" in adult $\mathrm{L}_{2}$ learners' performance, and to what extent their sex is responsible for it (See Brown, 2009; Cohen, 2008; Conley, 2008; De Bot et al., 2007).

## 2. Rationale

First, it is well known that some people learn a second language more easily than others. Relatedly, $\mathrm{L}_{2}$ acquisition is not a simple process; rather, it is quite complex and many factors are involved. Therefore, it is not easy to decide which factor is actually superior to another (See De Keyser, 2003; Echevarria et al., 2004; Ellis, N., 2002, 2005).

Second, the most fundamental change in the area of $\mathrm{L}_{2}$ acquisition in recent years has been a shift from concern with the teacher, the textbook and the method to an interest in the learner and the acquisition process. One of the challenges for $L_{2}$ acquisition research, then, is to explain not just success with $\mathrm{L}_{2}$ but also failure. Relatedly, $\mathrm{L}_{2}$ researchers have wondered about why most $\mathrm{L}_{2}$ learners do not achieve the same degree of proficiency in a second language as they do in their native language; why only some learners appear to achieve native-like proficiency, and why variations occur in the performance of the individual $L_{2}$ learner. In this connection, Ritchie and Bhatia (1996: 23) maintain that "we stress the fact that adult $\mathrm{L}_{2}$ production at any given point in the acquisition process is highly variable, changing systematically in a number of ways under a variety of conditions". Third, variation is a key concept in all kinds of research. In linguistics, as Nunan (1996) points out, when researchers observe systematic variations in language use, they want to identify the linguistic and situational variables to which the linguistic variations can be attributed. These variables
might include (1) the linguistic environment; (2) sociolinguistic factors; (3) the type of speech event; (4) the developmental stage of the learner; and (5) factors associated with the data collection procedures. In this regard, Freeman and Long (1991: 152) also maintain that "there is, however, a host of other factors which have been proffered to explain differential success among SL learners, to explain why some acquire a SL with facility while others struggle and only meet with limited success. These factors are native language variable; input variable, and the individual differences that exist among second language learners" (See Ellis, R., 2006; Eskildsen, 2008; Eslamim \& Fatahi, 2008; Hoey, 2007; Jiang, 2007; Kimberley, 2009).

Ellis (1990: 387) writes of the variability among second language learners as follows: The essence of a variabilist account of SLA is that the competence of the learner is much more variable than that of the native speaker, for the simple reason that inter-language systems are more permeable to new forms than fully formed natural languages. Often a learner's knowledge is anomalous in the sense that she may not be sure whether form X or Y is required in a given linguistic context. As a result she will sometimes use one and sometimes the other.... (a learner's competence) is inevitably variable because acquisition involves change, and change can only occur when new forms are added to the existing system, resulting in a stage where two (or more) forms are used for the same function". Relatedly, the problem is how to describe the speaker's knowledge, particularly if the speaker is a SL learner. The variationists may simply be 'collecting facts', without a theory to explain them (Brown, 1996). It is widely agreed that second language learners manifest variable control in performance. That is, whereas, on one occasion, they may produce a correct structure, on another occasion, where the same structure, would be appropriate, they produce a deviant structure. In this regard, Tarone (1985) maintains that 'the systematic variability which is exhibited in the learner's performance on a variety of elicitation tasks actually reflects his/her growing capability in IL, and is not just a performance phenomenon'. (p. 35) Tarone, then, is claiming that variability is an inherent feature of the representation of language knowledge among second language learners (Knutson, 2006; Larsen Freeman \& Cameron, 2007; Lightbown \& Spada, 2006; Mangubhai, 2006).

## 3. Review of Literature

Cameron (1995) made a distinction between three models of language and gender: (1) the deficit model, (2) the dominance model, and (3) the cultural difference model. In the deficit model, females are seen as disadvantaged speakers and communicators. Accordingly, the speech of men is considered as the accepted norm, while the women's speech is to be perceived as deficient (Aslan, 2009, p. 9). Along the same line, Swan (1989) found that "in contrast to the stereotype of the over-talkative women... it is men who dominate the talk...men have been found to use more interruptions...and simply to talk more than women" (cited in Gascoigne, 2002, p. 83). Along the same line, as reported by Holmes (1995), men use interaction as a means of gaining and exchanging information, whereas women use it as a way to connect to others (cited in Gascoigne, 2002, p. 83). Furthermore, studies of $\mathrm{L}_{1}$ classroom interaction have long shown that boys tend to dominate classroom interaction and that educators, at times, reinforce this type of behavior by giving additional time and attention to males (Gascoingne, 2002, p. 83). According to Holms (1995, cited in Gascoigne, 2002), it is "females who lost out. Their polite ways of participating in classroom talk means they are disadvantaged in mixed-sex classrooms" (p. 203).

The dominance model is, as Aslan (2009) asserts, rather radical in comparison with the deficit model which is more conservative. Along the same line, Block (2002) argues, "In this model women are perceived to perform their 'woman-ness' in an ethnomethodological frame as they continually negotiate their position of relative powerlessness vis a vis men" (p.53).
Cultural difference model perceives men and women as belonging to separate but equal
cultures which predate the development of individuals who are socialized into them (Block, 2002). Unlike deficit model, it does not take the differences negatively (Aslan, 2009). As Block (2002) reports cultural difference model adopts a socially liberal position that men and women are different but equal: women's speech and communication styles are not inferior to men's; rather the relationship between the two are problematic at least in part because of culture clash (Block, 2002). Overall, if communication breaks down between men and women, it's caused by misinterpreting the other party's form of interaction (Tannen, 1993, cited in Aslan, 2009, p. 12).

In second language acquisition, the concept of gender is variously interpreted. To Ellis (1994), there was nothing conclusive in studies of gender differences in SLA in achievement, attitudes and strategy use at that time. Accordingly, Ellis (1994) holds: "Sex is, of course, likely to interact with other variables in determining $\mathrm{L}_{2}$ proficiency. It will not always be the case, therefore, that females outperform males. Asian men in Britain generally attain higher levels of proficiency in $\mathrm{L}_{2}$ English than do Asian women for the simple reason that their jobs bring them into contact with the majority English speaking group, while women are often "enclosed" in the home. Sex interacts with such factors as age, ethnicity, and, in particular social class (p. 204).

However, in a study reported by Aslan (2009), it was reported gender influences strategy choice. Along the same vein, females and males are observed to employ various strategies in language acquisition. In a similar study, Ehrman and Oxford (1990) who looked at the strategies used by 1200 university students came to this conclusion that gender differences made a profound influence. Also, Gascoigne (2002), in a study on "the Role of Gender in $\mathrm{L}_{2}$ Interaction: Socialization via $L_{2}$ Materials" brings that males tend to use linguistic devices such as interruptions, directives, and sentence-initial conjunctions. Females, in contrast, tend to rely more heavily upon questions, justifiers, intensive adverbs, personal pronouns and word-initial adverbs (Gascoigne, 2002, p. 83). Kimura (2006, cited in Piasecka, 2010, pp. 146-149) thoroughly discusses the differences between females and males in terms of various abilities: With respect to motor abilities, Kimura (2006), concluded men do better at such tasks as throwing things at a target (e.g. a game of darts) or catching objects (e.g. ball games), whereas women have an advantage at the so-called subtle motor activities (e.g. performing movement sequences using fingers, like in weaving, knitting or sewing). In much the same way, females are better at calculations and tests which refer to the material that was learned at school. In terms of verbal abilities, girls usually start speaking earlier than boys; they use longer sentences. Their articulation and grammar are more correct. Consequently, they have a richer vocabulary. Moreover, they are better at spelling, reading and tests in which they have to generate words according to a certain rule (e.g. words that start with a certain letter).

While the research shows that the topic of the text was an important factor in the reading performance; for example, female students did better on female topics, gender differences have also been identified in attitudes to reading. Furthermore, girls have more positive attitudes to reading and higher reading achievement than boys. It appeared that students who had more positive reading attitudes and whose self-concepts were higher were more successful on reading tasks.

Kaushanskaya, Marian, and Yoo (2011) report the mechanisms of gender differences in language acquisition have been proposed to involve the declarative memory system. The existent study shows that gender differences on phonological memory tasks, just same as gender differences on lexical and semantic retrieval tasks, might be driven by women's reliance on the declarative memory system. However, on phonological memory tasks, the involvement of the declarative memory system is constrained by the overlap between the material being obtained and the information stored as part of long-term knowledge.

Kaushaskaya et al. (2011), also, continue the mechanism responsible for the female advantage when learning phonologically-familiar novel words therefore appears to be greatly flexible and dynamic in nature, and is likely based on the active recruitment of descriptive structures (long-term memory) during the encoding of verbal information (See Shakouri and Saligheh, 2012; Ehrlich, 1997).

## 4. The Present Study

### 4.1. The Purpose

This research reports on the results of an experiment, carried out by the author, on speakers of English as a foreign language. The purpose of this experiment is to examine the performance of 90 male-university students and 90 female-university students in three language skills: listening comprehension skill; structure and written expressions, and reading comprehension skills. The overall umbrella, under which the experiment is designed, is 'systematicity', and/or 'variability', and whether learners' gender is responsible for it. In other words, the present study is mainly concerned with clarifying and providing an evidence for the variation in $L_{2}$ learners' performance; that is, it shows how their performance is not unitary or systematic. This objective can be expressed in the following questions:

1. To what extent is $L_{2}$ learners' performance varied from one language skill to another? In other words, do students who perform in a certain way in one skill perform the same way in another? Relatedly, how does their varied or systematic performance in various language skills relate to the underlying representation of their knowledge?, and what does it tell about the nature of each of these skills?
2. To what extent is this variation or systematicity in $L_{2}$ learners' performance in various language skills related to their progress in language learning or academic status? In other words, is the variation in performance associated with beginning students only?; whereas advanced students' performance is totally systematic, and what is the direction of this variation or systematicity?
3. To what extent does male-students' performance in various language skills vary from that of female-students, within and among groups?

Finding answers to these questions may help us understand the phenomenon of variation or systematicity of $L_{2}$ learners' performance, and the factors that determine their performance in various language skills.

### 4.2. Methodology

The subjects of this study are 180 undergraduate university students. They are students of English as a foreign language in the faculty of Arts, Department of English, Minufiya University, Egypt. They were equally divided into three levels: 1) Beginners; 2) Intermediate, and 3) Advanced. Each level ( $\mathrm{N}=60$ students) was, in turn, equally divided into two subgroups; males $(\mathrm{N}=30)$, and females $(\mathrm{N}=30)$. This means that the present study is conducted on 90 male students, and 90 female students, distributed on three different levels.

The subjects were assigned to their level according to their academic status in their university. That is, first-and second-year students were considered `beginners'; third-year students 'intermediate', and fourth-year students 'advanced'. The subjects were chosen randomly; and their participation in the present study was mainly due to their belief that this was a glearning experience for them.

The instruments used in the present study consisted of a number of language proficiency measures as described below:

## 1. TOEFL Listening Comprehension (LC)

TOEFL is a four-choice norm-referenced test of English proficiency consisting of three subjects: 1) listening comprehension; 2) structure and written expression, and 3) reading comprehension.

The (LC) subtest consists of audiotaped texts followed by questions. Specifically, it is made of 58 items; distributed in three parts: part one contains 20 short statements; part two contains 30 short conversations, and part three contains longer conversations followed by 8 questions.

## 2. TOEFL Structure and Written Expressions (SWE)

This subtest consists of 40 individual items; distributed on o sections; the first section is made of 15 incomplete sentences, and the second one is made of 25 sentences in which each sentence has four underlined words or phrases. Subjects had to identify the one underlined word or phrase that must be changed in order for the sentence to be correct.

## 3. TOEFL Reading Comprehension (RC)

The reading comprehension subtest consists of several reading texts, each followed by several items. Specifically, it is made of five reading passages (varied in length and difficulty), followed by 50 items.

### 4.3. Procedures / Analysis

The subjects in each group were met three times. This means that I had nine meetings with all the subjects, since I have three groups of students participated in the study. These meetings were distributed as follows:
Meeting 1: Beginners (males and females) were met in the language laboratory to perform on the listening comprehension subtest.
Meeting 2: Intermediate (males and females) were met to do the same as above.
Meeting 3: Advanced (males and females) were met to do the same as above.
It must be mentioned that the above three meetings were conducted one after the other and on the same day.
Meeting 4: (two days later) Beginners (males and females) were met to perform or the 'structure and written expression' subtest.
Meeting 5: (the same day immediately after meeting 4) intermediate (male and female) did the same as above.
Meeting 6. (the same day immediately after meeting 5) Advanced (male and female) did the same as above.
Meeting 7, 8 , and 9 were conducted in the same order as above with regard to the 'Reading Comprehension' subtest. It should be stated that instructions were given to all subjects in Arabic, and they were given the chance to ask any questions related to what they had to do in any subtest. No specific time was determined for the (SWE) and (RC) subtests; that is, all subjects were given as much time as they needed finish the tasks. Their answer sheets were collected and graded. Finally, the data were analyzed quantitatively; that is, all necessary statistical analyses were carried out, as the following section may illustrate

## 5. Results / Discussion

Next, the results of the statistical analyses of students' performance in the three language skills will be provided.

## 1. Subjects' Performance in the Listening Comprehension (LC) Subtest

Table (1)
Descriptive statics of all subjects' performance in the listening comprehension subtest.

|  |  | Males | Females | Total |
| :--- | :---: | :---: | :---: | :---: |
| Beginners | N | 30 | 30 | 60 |
|  | X | 517 | 567 | 1084 |
|  | $\mathrm{X}^{2}$ | 9825 | 11405 | 21230 |
| Intermediate | N | 30 | 30 | 60 |
|  | X | 577 | 686 | 1263 |
|  | $\mathrm{X}^{2}$ | 11683 | 16988 | 28671 |
|  | N | 30 | 30 | 60 |
|  | X | 704 | 660 | 1364 |
|  | $\mathrm{X}^{2}$ | 18868 | 15682 | 34550 |

Table (2)

| Group | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | 60 | 1084 | 21230 | 18.07 | 5.24 |
| Intermediate | 60 | 1263 | 28671 | 21.05 | 5.90 |
| Advanced | 60 | 1364 | 34550 | 22.73 | 7.68 |

The above tables show that "Beginners" scored a total of 1084 marks in the listening comprehension skill, with a mean of 18.07 and standard deviation of 5.24 ; whereas the Intermediate subjects scored a total of 1263, with a mean of 21.05 and standard deviation of 5.90. The Advanced subjects scored a total of 1364 with a mean of 22.73 and standard deviation of 7.68 .

To get a more accurate and explanatory picture of all subjects' performance in the listening comprehension subtest, we need to check the performance of both males and females in the three groups with a view to determining whether there is a variation within and among groups in the (LC) skill, or not.

Table (3)

|  |  | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | Males | 30 | 517 | 9825 | 17.23 | 5.52 |
|  | Females | 30 | 567 | 11405 | 18.90 | 4.79 |
| Intermediate | Males | 30 | 577 | 11683 | 19.23 | 4.42 |
|  | Females | 30 | 686 | 16988 | 22.87 | 6.59 |
| Advanced | Males | 30 | 704 | 18868 | 23.47 | 8.85 |
|  | Females | 30 | 660 | 15682 | 22.00 | 6.22 |

The above table shows that there is a clear variation in the performance of the subjects in the (LC) subtest within and among groups. The females in the Beginning and Intermediate groups scored better than the males in both groups. However, the males in the Advanced group scored better than the females. Moreover, comparing the performance of all males in the three groups shows that there is a systematic progress in learners, performance; that is, Advanced males performed better than the Intermediate males in the three groups shows that there is a systematic progress in learners' performance; that is, Advanced males performed better than the Intermediate males who, in turn, performed better than the Beginning males. This is not the case, however, if we compare the performance of all females in the three groups. The females in the Advanced group didn't achieve the highest score, as the males did. The females in the Intermediate group did better than those in the Beginning and Advanced groups. The following Tables will clearly illustrate this observation.

Table (4)

| Comparison Groups |  | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\bar{X} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | Males | 17.23 | 19.23 | 5.52 | 4.42 | 1.52 | Insignificant |
| Intermediate ${ }^{(2)}$ |  |  |  |  |  |  |  |
| Beginning ${ }^{(1)}$ | Males | 17.23 | 23.47 | 5.52 |  | 3.22 | 0.01 |
| Advanced ${ }^{(2)}$ |  |  |  |  | 8.85 |  |  |
| Intermediate ${ }^{(1)}$ | Males | 19.23 |  | 4.42 |  | 2.31 | 0.05 |
| Advanced ${ }^{(2)}$ |  |  | 23.47 |  | 8.85 |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=30$
$\mathrm{T}=2.00$ Significant at the level of 0.05
$\mathrm{T}=2.66$ Significant at the level of 0.01
The above table shows that there are significant statistical differences between the scores of the males in the Advanced and Beginning groups at 0.01 in favor of the advanced group. The T value that signifies these differences is 3.22 , which is statistically significant at the level 0.01 . Similarly, there are significant statistical differences between the scores of the males in the Advanced and Intermediate groups at 0.05 in favor of the Advanced group, as well. The T value that signifies these differences is 2.31 , which is statistically significant at the level 0.05 . Moreover, there are not significant statistical differences between the scores of the males in both the Beginning and Intermediate groups. The T value is 1.52 which is not statistically significant.

Table (5)

| Comparison Groups |  | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\overline{\mathbf{X}} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | Females | 18.90 | 22.87 | 4.79 | 6.59 | 2.62 | 0.05 |
| Intermediate ${ }^{(2)}$ |  |  |  |  |  |  |  |
| Beginning ${ }^{(1)}$ | Females | 18.90 | 22.00 | 4.79 |  | 2.13 | 0.05 |
| Advanced ${ }^{(2)}$ |  |  |  |  | 6.22 |  |  |
| Intermediate ${ }^{(1)}$ | Females | 22.87 |  | 6.59 |  | 0.52 | Insignificant |
| Advanced ${ }^{(2)}$ |  |  | 22.00 |  | 6.22 |  |  |

The above table shows that there are significant statistical differences between the scores of the females in the Beginning and Intermediate groups at 0.05 in favor of the Intermediate group. The T value that signifies these differences is 2.62 , which is statistically significant at the level 0.05 . Similarly, there are, naturally, significant statistical differences between the scores of the females in the Beginning and Advanced groups at 0.05 in favor of the Advanced group. Moreover, there are not significant statistical differences between the scores of the females in both the Intermediate and Advanced groups. The T value is 0.52 , which is not statistically significant.

Table (6)
Means and standard deviation of the subjects' scores
(Males and Females) in the (LC) subtest

| Comparison Groups | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\overline{\boldsymbol{X}} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | 18.07 | 21.05 | 5.24 |  | ** | 0.01 |
| Intermediate ${ }^{(2)}$ |  |  |  | 5.90 | 2.90 |  |
| Beginning ${ }^{(1)}$ | 18.07 | 22.00 | 5.24 |  | ** | 0.01 |
| Advanced ${ }^{(2)}$ |  |  |  | 6.22 | 3.85 |  |
| Intermediate ${ }^{(1)}$ | 21.05 |  | 5.90 |  | 1.33 | Insignificant |
| Advanced ${ }^{(2)}$ |  | 22.73 |  | 7.68 |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=60$
2.62 Significant at 0.01
1.98 Significant at 0.05

The above table provides us with a conclusive summary of the performance of the subjects in the three groups in the (LC) subtest. There are significant statistical differences between the scores of the subjects in both the Beginning and Intermediate groups in favor of the latter group. The T value that signifies these differences is 2.90 which is statistically significant at the level of 0.01 . Also, there are significant statistical differences between the scores of the subjects in both the Beginning and Advanced groups in favor of the latter group. The T value that signifies these differences is 3.85 , which is statistically significant at the level or 0.01 . Moreover, there are not significant statistical differences between the scores of the subjects in both the Intermediate and Advanced groups. The T value is 1.33 which is not statistically significant.

Table (7)
Analysis of variance ( $2 \times 3$ ) in the subjects' scores in Listening Comprehension:
Gender x Language Level

| Source of Variance | Squares | Degrees of <br> Freedom | Variance | F | Sign. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 7942.55 | 119 |  |  |  |
| Between Groups | 942.18 | 5 |  |  |  |
| Within Groups | 7000.37 | 174 | 40.23 |  |  |
| Gender | 73.47 | 1 | 73.47 | 1.83 | Insign. |
| Language Level | 670.23 | 2 | 335.12 | 8.33 | 0.01 |
| Interaction | 198.48 | 2 | 99.24 | 2.47 | Insign. |

(1.174)
6.81 Significant at 0.01
3.91 Significant at 0.05
(2.174)
4.75 Significant at 0.01
3.06 Significant at 0.05

The above table shows that the subjects' gender (being male or female) had no significant effect on their performance in the Listening Comprehension subtest. On the contrary, being Beginner, Intermediate or Advanced learners had significant effect on their performance; an observation which sheds light on the nature of L y learners' interlangua. The F value that signifies this effect is 8.33 , which is statistically significant at the level 0.01 . The above table also shows that there is no significant statistical interaction between the subjects' gender and language education level (Beginner, Intermediate, and Advanced). The F value for the interaction between them is 2.47 , which is not statistically significant. The following figure may illustrate this case.


Figure (1)

## 2. Subjects' Performance in the Structure and Written Expressions (SWE)

The following table presents a descriptive statistical analysis of all subjects (males and females) in the structure and written expressions subtest.

Table (8)
Descriptive statics of all subjects’ performance in the Structure and Written Expressions (SWE)

|  |  | Males | Females | Total |
| :--- | :---: | :---: | :---: | :---: |
| Beginners | N | 30 | 30 | 60 |
|  | X | 620 | 679 | 1299 |
|  | $\mathrm{X}^{2}$ | 13458 | 15927 | 29385 |
| Intermediate | N | 30 | 30 | 60 |
|  | X | 791 | 793 | 1584 |
|  | $\mathrm{X}^{2}$ | 22019 | 21791 | 43810 |
|  | N | 30 | 30 | 60 |
|  | X | 9334 | 906 | 1840 |
|  | $\mathrm{X}^{2}$ | 29974 | 27840 | 57814 |

Table (9)

| $\mathbf{G r o u p}$ | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | 60 | 1299 | 29385 | 21.65 | 4.59 |
| Intermediate | 60 | 1584 | 43810 | 26.40 | 5.76 |
| Advanced | 60 | 1840 | 57814 | 30.67 | 4.81 |

The above tables show that the beginning subjects scored a total of 1299 in the (SWE) subtest, with a mean of 21.65 and standard deviation of 4.59 ; whereas the Intermediate subjects scored a total of 1584 , with a mean of 26.40 and standard deviation of 5.76. The Advanced subjects scored a total of 1840 , with a mean of 30.67 and standard deviation of 4.81 .

To get a more accurate and explanatory picture of all subjects' performance in the (SWE) subtest, we need to check the performance of both males and females in the three groups with a view to determining where there is a variation within and among groups in the (SWE) subtest, or not.

Table (10)

|  |  | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | Males | 30 | 620 | 13458 | 20.67 | 4.64 |
|  | Females | 30 | 679 | 15927 | 22.63 | 4.32 |
| Intermediate | Males | 30 | 791 | 22019 | 26.37 | 6.23 |
|  | Females | 30 | 793 | 21791 | 26.43 | 5.26 |
|  | Males | 30 | 934 | 29974 | 31.13 | 5.46 |
|  | Females | 30 | 906 | 27840 | 30.20 | 4.00 |

The above table shows that there is a clear variation in the performance of the subjects in the (SWE) subtest within and among groups. The females in the Beginning and Intermediate groups scored better than the males in both groups. This is not the case, however, in the

Advanced group; that is, the males scored better than the females. This was the situation in the listening comprehension subtest.

Moreover, comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance; that is, Advanced males performed better than the Intermediate males who, in turn, performed better than the Beginning males. The same can be applied to the females in the three groups. It should be kept in mind that this was not the case in the (LC) subtest. The following table will illustrate this observation more clearly.

Table (11)

| Comparison Groups | Means |  | Standard <br> Deviations |  | T | Significant |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  |  | $\overline{\boldsymbol{X}} \mathbf{1}$ | $\overline{\mathbf{X}} \mathbf{2}$ | SD1 |  |  |  |
| Beginning | Males | 20.67 |  | 26.37 |  | 6.64 |  |

$\mathrm{N}=\mathrm{N}_{2}=30$
2.66 Significant at 0.01
2.00 Significant at 0.05

The above table shows that there are significant statistical differences between the scores of the males in the Beginning and Intermediate groups at 0.01 in favor of the latter group. The $T$ value that signifies these differences is 3.95 . Similarly, there are significant statistical differences between the scores of the males in the Beginning and Advanced group in favor of the latter group, at 0.01 . The T value that signifies these differences is 7.86 . Moreover, there are significant statistical differences between the scores of the males in the Intermediate and Advanced groups at 0.01 in favor of the latter group, as well. The $T$ value that signifies these differences is 3.09 .

Table (12)

| Comparison Groups |  | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\overline{\mathbf{X}} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning | Females | 22.63 | 26.43 | 4.32 | 5.26 | 3.01 | Insignificant |
| Intermediate |  |  |  |  |  |  |  |
| Beginning | Females | 22.63 | 30.20 | 4.32 | 3.99 | 6.93 | 0.01 |
| Advanced |  |  |  |  |  |  |  |
| Intermediate | Females | 26.43 |  | 5.26 |  | 3.08 | 0.01 |
| Advanced |  |  | 30.20 |  | 3.99 |  |  |

The above table shows that there are not significant statistical differences between the scores of the females in the Beginning and Intermediate groups. The T value is 3.01 which is not statistically significant. It also shows, however, that there are significant statistical differences between the scores of the females in the Beginning and Advanced group. The T value that signifies these differences is 6.93 . Similarly, there are significant statistical differences between the scores of the females in the Intermediate and Advanced groups at 0.01 in favor of the Advanced group. The T value that signifies these differences is 3.08 .

Table (13)
Means and standard deviation of the subjects' scores
(Males and Females) in the (SWE) subtest

| Comparison Groups | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\overline{\mathrm{X}} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | 21.65 | 26.49 | 4.59 |  | 4.95 | 0.01 |
| Intermediate ${ }^{(2)}$ |  |  |  | 5.76 |  |  |
| Beginning ${ }^{(1)}$ | 21.65 | 30.67 | 4.59 | 4.81 | 10.42 | 0.01 |
| Advanced ${ }^{(2)}$ |  |  |  |  |  |  |
| Intermediate ${ }^{(1)}$ | 26.40 |  | 5.76 |  | 4.37 | 0.01 |
| Advanced ${ }^{(2)}$ |  | 30.67 |  | 4.81 |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=60$
2.62 Significant at 0.01
1.98 Significant at 0.05

The above table provides us with a conclusive summary of the performance of the subjects (Males and Females) in the three groups in the (SWE) subtest. There are significant statistical differences between the scores of the subjects in the Beginning and Intermediate groups in favor of the latter group, at the level of 0.01 . The T value that signifies these differences is 4.95. Relatedly, there are significant statistical differences between the scores of the Beginning and Advanced groups in favor of the latter group, at the level of 0.01 . The T value that signifies these differences is 10.42 . Moreover, there are significant statistical differences between the scores of the subjects in the Intermediate and Advanced groups in favor of the latter group at the level of 0.01 . The T value that signifies these differences is 4.37.

Table (14)
Analysis of variance ( $2 \times 3$ ) in the subjects' scores in the (SWE) subtest: Gender $x$ Language Level

| Source of Variance | Squares | Degrees of Freedom | Variance | F | Signif. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 7082.73 |  |  |  |  |
| Between Groups | 2512.49 |  |  |  |  |
| Within Groups | 4570.24 | 174 | 26.27 |  |  |
| Gender | 6.05 | 1 | 6.05 | 0.23 | Insign. |
| Language Level | 2441.34 | 2 | 1220.67 | 46.47 | 0.01 |
| Interaction | 65.10 | 2 | 32.55 | 1.24 | Insign. |

The above table shows that the subjects' gender (being male or female) had no significant statistical effect on their performance in the (SWE) subtest. On the contrary, being Beginner, Intermediate or Advanced learners (Language level) had significant effect on their
performance; an observation which sheds light on the nature of $L_{2}$ learners' interlangua. The F value that signifies this effect is 46.47 , which is statistically significant at the level 0.01 .

The above table also shows that there is no significant statistical interaction between the subjects' gender and language education level. The $F$ value for the interaction between them is 1.24 , which is not statistically significant. The following figure may illustrate this case.


Figure (2)

## 3. Subjects' Performance in the Reading Comprehension (RC) subtest

The following table presents a descriptive statistical analysis of all subjects (males and females) in the reading comprehension subtest.

Table (15)
Descriptive statics of all subjects' performance in the Reading Comprehension (RC) subset

|  |  | Males | Females | Total |
| :--- | :---: | :---: | :---: | :---: |
| Beginners | N | 30 | 30 | 60 |
|  | X | 727 | 854 | 1581 |
|  | $\mathrm{X}^{2}$ | 18407 | 24988 | 43395 |
| Intermediate | N | 90 | 30 | 120 |
|  | X | 2570 | 784 | 886 |
|  | $\mathrm{X}^{2}$ | 77495 | 21208 | 27070 |
| Total | N | 30 | 90 | 60 |
|  | X | 936 | 2606 | 1511 |
|  | $\mathrm{X}^{2}$ | 30260 | 78538 | 39615 |
|  | N | 60 | 60 | 180 |
|  | X | 1740 | 1925 | 5176 |
|  | $\mathrm{X}^{2}$ | 52058 | 64355 | 156028 |

Table (16)

| Group | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | 60 | 1511 | 39615 | 25.18 | 5.10 |
| Intermediate | 60 | 1740 | 52058 | 29.20 | 5.16 |
| Advanced | 60 | 1925 | 64355 | 32.8 | 6.56 |

The above tables show that the Beginning subjects scored a total of 1511 in the (RC) subtest, with a mean of 25.18 and standard deviation of 5.10 ; whereas the Intermediate subjects scored a total of 1740 , with a mean of 29.00 , and standard deviation of 5.16 . The Advanced subjects scored a total of 1925 , with a mean of 32.8 and standard deviation of 6.58 .

To get a more accurate and explanatory picture of all subjects' performance in the (RC) subtest, we need to check the performance of both males and females in the three groups with a view to determining whether there is a variation within and among groups in the (RC) subset, or not.

Table (17)

|  |  | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | $\overline{\boldsymbol{X}}$ | $\mathbf{S D}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | Males | 30 | 727 | 18407 | 24.23 | 5.13 |
|  | Females | 30 | 784 | 21208 | 26.13 | 4.90 |
| Intermediate | Males | 30 | 854 | 24988 | 27.47 | 4.75 |
|  | Females | 30 | 886 | 27070 | 29.53 | 5.49 |
| Advanced | Males | 30 | 989 | 34095 | 32.97 | 7.05 |
|  | Females | 30 | 936 | 30260 | 31.20 | 5.94 |

The above table shows that there is a clear variation in the performance of the subjects in the (RC) subtest within and among groups. The females in both the beginning and Intermediate groups scored better than the males in both groups. This is not the case, however, in the Advanced group; that is, the males scored better than the females. This was the situation in the (LC) and (SWE). Moreover, comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance; that is, Advanced males performed better than the Intermediate males, who, in turn, performed better than the Beginning males. The same can be applied to the females in the three groups. It should be kept in mind that this was the case in the (SWE), but not in the (LC) subtest.

Table (18)

| Comparison Groups |  | Means |  | Standard Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\bar{X} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning | Males | 24.23 | 28.47 | 5.13 | 4.75 | 3.27 | 0.01 |
| Intermediate |  |  |  |  |  |  |  |
| Beginning | Males | 24.23 | 32.97 | 5.13 |  | 5.40 | 0.01 |
| Advanced |  |  |  |  | 7.05 |  |  |
| Intermediate | Males | 28.47 |  | 4.75 |  | 2.85 | 0.01 |
| Advanced |  |  | 32.97 |  | 7.05 |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=30$
2.66 Significant at 0.01
2.00 Significant at 0.05

The above table shows that there are significant statistical differences between the scores of the males in the Beginning and Intermediate groups at 0.01 in favor of the latter group. The T value that signifies these differences is 3.27 . Similarly, there are significant statistical differences between the scores of the males in the Beginning and Advanced groups in favor of the latter group at the level of 0.01 . The T value that signifies these differences is 5.40 . Moreover, there are significant statistical differences between the scores of the males in the Intermediate and Advanced groups at 0.01 in favor of the latter group. The T value that signifies these differences is 2.85 , which is statistically significant.

Table (19)

| Comparison Groups | Means |  | Standard <br> Deviations |  | T | Significant |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  | $\overline{\mathbf{X}} \mathbf{1}$ | $\overline{\mathbf{X}} \mathbf{2}$ | SD1 | SD2 |  |  |  |
| Beginning |  | 26.13 |  | 4.90 | 5.48 | 2.49 | 0.05 |
| Intermediate |  |  | 29.53 |  | 5.48 |  |  |
| Beginning |  | 26.13 |  | 4.90 |  | 3.55 | 0.01 |
| Advanced | Females |  | 31.20 |  | 5.94 |  |  |
| Intermediate |  | 29.53 |  | 5.49 |  | 1.11 | Insign. |
| Advanced | Females |  | 31.20 |  | 5.94 |  |  |

The above table shows that there are significant statistical differences between the scores of the females in the Beginning and Intermediate groups at 0.05 in favor of the latter group. The T value that signifies these differences is 2.49 . Similarly, there are significant statistical differences between the scores of the females in the Bea-inning and Advanced groups at 0.01 in favor of the latter group. The T value that signifies these differences is 3.55 . However, there are not significant statistical differences between the scores of the females in the Intermediate and Advanced groups. The T value is 1.11 which is not statistically significant.

Table (20)

| Comparison Groups | Means |  | Standard <br> Deviations |  | T | Signifi. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bar{X} 1$ | $\bar{X} 2$ | SD1 | SD2 |  |  |
| Beginning (males + females) ${ }^{(1)}$ | 25.18 | 29.00 | 5.10 |  | 4.04 | 0.01 |
| Intermediate (males + females) ${ }^{(2)}$ |  |  |  | 5.16 |  |  |
| Beginning (males + females) ${ }^{(1)}$ | 25.18 | 32.08 | 5.10 |  | 6.37 | 0.01 |
| Advanced (males + females) ${ }^{(2)}$ |  |  |  | 6.58 |  |  |
| Intermediate (males + females) ${ }^{(1)}$ | 29.00 | 32.08 | 5.16 | 6.58 | 2.83 | 0.01 |
| Advanced (males + females) ${ }^{(2)}$ |  |  |  |  |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=30$
2.62 Significant at 0.01
1.98 Significant at 0.05

The above table provides us with a conclusive summary of the performance of the subjects (Males and Females) in the three groups in the (RC) subtest. There are significant statistical differences between the scores of the subjects in the Beginning and Intermediate groups in favor of the latter
group, at the level of 0.01 . The T value that signifies these differences is 4.04 . Relatedly, there are significant statistical differences between the scores of the Beginning and Advanced groups in favor of the latter group, at the level of 0.01 . The T value that signifies these differences is 6.37 . Moreover, there are significant statistical differences between the scores of the Intermediate and Advanced groups in favor of the latter group at the level of 0.01 . The T value that signifies these differences is 2.83 .

Table (21)

## Analysis of variance ( $2 \times 3$ ) in the subjects' scores in the (RC) subtest: Gender x Language Level

| Source of <br> Variance | Squares | Degrees of <br> Freedom | Variance | F | Signif. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 7189.24 | 179 |  |  |  |
| Between Groups | 1551.71 | 5 |  |  |  |
| Within Groups | 5637.53 | 174 | 32.40 |  |  |
| Gender | 7.20 | 1 | 7.20 | 0.22 | Insign. |
| Language Level | 1433.68 | 2 | 716.84 | 22.13 | 0.01 |
| Interaction | 110.83 | 2 | 55.42 | 1.71 | Insign. |

The above table shows that the subjects' gender (being male or female) had no significant statistical effect on their, performance hi the (RC) subtest. On the contrary, being Beginners, Intermediate, or Advanced learners (language level) had significant effect on their performance; an observation which sheds light on the nature of $L_{2}$ learners' interlangua. The $F$ value that signifies this effect is 22.13, which is statistically significant at the level 0.01 .

The above table also shows that there is no significant statistical interaction between the subjects' gender and language education level. The F value for the interaction between them is 1.71 , which is not statistically significant. The following figure may illustrate this case.


Figure (3)

Having presented a statistical analysis of the performance of the subjects in the three subtests separately, I would like, next, to present a statistical analysis of the subjects' performance in the three subtests combined.

Table (22)

## Descriptive statics of all subjects' performance in the Reading Comprehension (RC) subset

|  |  | Males | Females | Total |
| :--- | :---: | :---: | :---: | :---: |
| Beginners | N | 30 | 30 | 60 |
|  | X | 1864 | 2030 | 3894 |
|  | $\mathrm{X}^{2}$ | 119192 | 140360 | 259552 |
|  | N | 30 | 30 | 60 |
|  | X | 2222 | 2365 | 4587 |
|  | $\mathrm{X}^{2}$ | 167972 | 191815 | 359787 |
|  | N | 30 | 30 | 60 |
|  | X | 2627 | 2502 | 5129 |
|  | $\mathrm{X}^{2}$ | 240979 | 213972 | 454901 |

Table (23)

| Group | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | - | $\mathbf{S D}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | 60 | 3894 | 259552 | 64.90 | 10.67 |
| Intermediate | 60 | 4587 | 359787 | 76.45 | 12.32 |
| Advanced | 60 | 5129 | 454951 | 85.48 | 16.09 |

The above tables show that the Beginning subjects scored a total of 3894 in the three subtests used in the study, with a mean of 64.90 and standard deviation of 10.67 , whereas the, Intermediate subjects scored a total of 4587, with a mean of 76.45 and standard deviation of 12.32 . The Advanced subjects scored a total of 5129 with a mean of 85.48 and standard deviation of 16.09 .

To get a more accurate and explanatory picture of all subjects performance in the three subtests, we need to check the performance of both males and females in the three groups with a view to determining whether there is a variation within and among groups in the three subjects, or not.

Table (24)

|  |  | $\mathbf{N}$ | $\mathbf{X}$ | $\mathbf{X}^{\mathbf{2}}$ | - | $\mathbf{S D}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Beginners | Males | 30 | 1864 | 119192 | 62.13 | 10.61 |
|  | Females | 30 | 2030 | 140360 | 67.67 | 9.99 |
| Intermediate | Males | 30 | 2222 | 167972 | 74.07 | 10.64 |
|  | Females | 30 | 2365 | 191815 | 78.83 | 13.38 |
| Advanced | Males | 30 | 2627 | 240979 | 78.54 | 19.10 |
|  | Females | 30 | 2502 | 213972 | 23.40 | 13.30 |

The above table shows that there is a clear variation in the performance of the subjects in the three subtests. The females in both the beginning and Intermediate groups scored better than the meals in both groups. This is not the case, however, in the advanced group. That is, the males in the advanced group scored better than the females. Moreover, comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance, that is,

Advanced males performed better than the Intermediate males. The same can be said in reference to the females in the three groups.

Table (25)

| Comparison Groups |  | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - | - | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | Males | 62.13 | 74.07 | 10.61 | 10.64 | 4.28 | 0.01 |
| Intermediate ${ }^{(2)}$ |  |  |  |  |  |  |  |
| Beginning ${ }^{(1)}$ | Males | 62.13 | 87.57 | 10.61 |  | 6.27 | 0.01 |
| Advanced ${ }^{(2)}$ |  |  |  |  | 19.10 |  |  |
| Intermediate ${ }^{(1)}$ | Males | 74.07 |  | 10.64 |  | 3.33 | 0.01 |
| Advanced ${ }^{(2)}$ |  |  | 87.57 |  | 19.10 |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=30$
2.66 Significant at 0.01
2.00 Significant at 0.05

The above table shows that there are significant statistical differences between the scores of the males in the beginning and Intermediate groups at 0.01 in favor of the Intermediate males. The T value that signifies this difference is 4.28 . Similarly, there are significant statistical differences between the scores of the males in the beginning and advanced groups at 0.01 in favor of the advanced group. The T values that signifies these difference is 6.27 . Moreover, there are significant statistical difference between the scores of the males in the Intermediate and advanced groups at 0.01 in favor of the advanced group. The T value that signifies this difference is 3.33 , which is statistically significant.

Table (26)

| Comparison Groups |  | Means |  | Standard <br> Deviations |  | T | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | SD1 | SD2 |  |  |
| Beginning ${ }^{(1)}$ | Females | 67.67 | 78.83 | 9.99 | 13.38 | 3.60 | 0.01 |
| Intermediate ${ }^{(2)}$ |  |  |  |  |  |  |  |
| Beginning ${ }^{(1)}$ | Females | 67.67 | 83.40 | 9.99 | 13.30 | 5.09 | 0.01 |
| Intermediate ${ }^{(1)}$ | Females | 78.83 |  | 13.38 |  | 1.31 | Insign. |
| Advanced ${ }^{(2)}$ |  |  | 83.40 |  | 13.30 |  |  |

The above table shows that above between the scores of the females in the beginning and Intermediate groups in the three subjects at 0.01 in favor of the Intermediate females. The T values that signifies these difference is 3.60 Also, there are significant statistical difference between scores of the females in the beginning and advanced groups at 0.01 in favor of the advanced females. The T value that signifies this difference is 5.09 . In addition, there are not significant statistical difference between the scores of the females in the Intermediate and advanced groups in the subtests. The T value is 1.31 , which is not statistically significant.

Table (27)

| Comparison Groups | Means |  | Standard Deviations |  | T | Signifi. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SD1 | SD2 |  |  |
| Beginning (males + females) ${ }^{(1)}$ | 64.90 | 76.45 | 10.67 | 12.32 | 5.44 | 0.01 |
| Intermediate (males + females) ${ }^{(2)}$ |  |  |  |  |  |  |
| Beginning (males + females) ${ }^{(1)}$ | 64.90 | 85.48 | 10.67 | 15.59 | 8.01 | 0.01 |
| Advanced (males + females) ${ }^{(2)}$ |  |  |  |  |  |  |
| Intermediate (males + females) ${ }^{(1)}$ | 76.45 | 85.48 | 12.32 | 16.59 | 3.36 | 0.01 |
| Advanced (males + females) ${ }^{(2)}$ |  |  |  |  |  |  |

$\mathrm{N}_{1}=\mathrm{N}_{2}=60$
2.62 Significant at 0.01
1.98 Significant at 0.05

The above table provides us with a conclusive summary of the performance of the subjects (Males and Females) in the three tests in the three groups. There is significant statistical difference between the scores of the subjects in the beginning and Intermediate groups in favor of the Intermediate group, at the level of 0.01 . The T values that signifies these difference is 5.44 . Relatedly, there are significant statistical difference between the scores of the subjects in the beginning and Advanced groups at 0.01 in favor of the advanced group. The T value that signifies these differences are 8.01 Moreover, there are significant statistical differences between the scores of the subjects in the Intermediate and advanced at 0.01 favor of the advanced group. The T value that signifies these differences is 3.36 .

Table (28)
Analysis of variance ( $2 \times 3$ ) in the subjects' scores in the subtest:
Gender x Language Level

| Source of <br> Variance | Squares | Degrees of <br> Freedom | Variance | F | Signif. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total | 45222.78 | 179 |  |  |  |
| Between Groups | 13834.04 | 5 |  |  |  |
| Within Groups | 31388.74 | 174 | 180.40 |  |  |
| Gender | 188.09 | 1 | 188.09 | 1.04 | Insign. |
| Language Level | 12773.54 | 2 | 6386.77 | 35.40 | 0.01 |
| Interaction | 872.41 | 2 | 436.21 | 2.42 | Insign. |

The above table shows that the subjects gender (being male or Female) had no significant statistical effects on their overall performance in the three subtests. On the contrary, being Beginner, Intermediate, or Advanced learners (language level) had significant effects on their performance. The F value that signifies this effect is 35.40 , which is statistically significant at the level of 0.01 . The above table also shows that there is no significant statistical interaction between the subjects gender and language education level. The F value for the interaction between them is 2.42 , which is not statistically significant. The following figure may illustrate this case.
_Figure (4)

## $\mathbf{L}_{2}$ Learners' Performance ....

## 6. Conclusion

The present study was mainly undertaken to examine the phenomenon of variation and or systematicity in $L_{2}$ learners' performance in three language tasks. A special emphasis was given to the gender of those learners; and whether or not this variation can be observed among males and females and in what language skill it can be mostly observed. The results of this study can be summarized as follows:

1. There is a clear variation in the performance of the subjects in the Listening Comprehension (LC) task within and among groups. The Beginning subjects scored a total of 1084 marks, with a mean of 18.07 and standard deviation of 5.24 . The Intermediate subjects scored a total of 1263 , with a mean of 21.05 and standard deviation of 5.90 ; whereas the advanced subjects scored a total of 1364 with a mean of 22.73 and standard deviation of 7.68 . In addition, the females in the Beginning and Intermediate groups scored better than the males in both groups. However, the males in the advanced group scored better than the females.
2. Comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance in the LC subtest according to their language level in their university. That is, Advanced males performed better than the Intermediate males who, in turn, performed better than the Beginning males. What is worth mentioning here is that the females in the advanced group didn't achieve the highest score, as the males did. The females in the Intermediate group did better than those in the Beginning and advanced groups.
3. There is a clear variation in the performance of the subjects in the structure and written expression (SWE) subtest within and among groups. The Beginning subjects scored a total of 1299 , with a mean of 21.65 and standard deviation of 4.59. The Intermediate subjects scored a total of 1584 , with a mean of 26.40 and standard deviation of 5.76. The Advanced subjects scored a total of 1840, with a mean of 30.67 and standard deviation of 4.81 . In addition, the females in the Beginning and Intermediate groups scored better than the meals in both groups. This is not the case, however, in the advanced group; that is, the males scored better than the females; a case similar to the one mentioned in (1) before.
4. Comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance. That is, advanced males performed better than the Intermediate males who, in turn, performed better than the Beginning males. The same can be applied to the females. This was not the case in the (LC) subtest. Such observation sustains the view that L2 learners' performance is not systematic or unitary.
5. Moreover, there is a clear variation in the performance of the subjects in the reading comprehension (RC) subtest within and among groups. The Beginning subjects scored a total of 1511 , with a mean of 25.18 and standard deviation of 5.10 . The Intermediate subjects scored a total of 1740 , with a mean of 29.00 and standard deviation of 5.16 . The Advanced subjects scored a total of 1925, with a mean of 32.8 and standard deviation of 6.58 . In addition, the females in both the Beginning and Intermediate groups scored better than the males in both groups. This is not the case, however, in Advanced group; that is, the males scored better than females. This was the situation in the (LC) and (SWE).
6. Comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance; that is, Advanced males who, in turn, performed better than the Beginning males. The same can be applied to the females in the three groups. This was the case in the (SWE), but not in the (LC) subtest.
7. Examining the subjects' performance in the three tasks combined shows that there is a clear variation in their performance. The Beginning subjects scored a total of 3894 in the three subtests used in the study, with a mean of 64.90 and standard deviation of 10.67 , whereas the Intermediate subjects scored a total of 4587 , with a mean of 76.45 and standard deviation of 12.32. The Advanced subjects scored a total of 5129 with a mean of 85.48 and standard deviation of 16.09. In addition, the females in both the Beginning and Intermediate groups
scored better than the meals in both groups. This is not the case, however, in the Advanced group. That is, the males in the Advanced group scored better than the females.
8. Comparing the performance of all males in the three groups shows that there is a systematic progress in learners' performance; that is, Advanced males performed better than the Intermediate males who, in turn, performed better than the Beginning males. The same can be said in reference to the females in the three groups.

The above findings support, the variability position (Mclaughlin, 1978). Stated simply, it maintains that $\mathrm{L}_{2}$ learners' performance varies according to the kind of language use that they engage in and the kind of knowledge that they acquire. Keeping this in mind, the observed variability in the subjects' performance indicates that $\mathrm{L}_{2}$ learners' proficiency is not an absolute construct; rather, it relies on what kind of language task the learner is performing and the kind of knowledge required by such a task. Accordingly, we will be mistaken to expect from the learner who performs highly in one task to, necessarily, perform at the same high level in another task. Instead, we need to keep in mind that students' performance is not unitary, and we should accept the variability in our students' performance as a natural phenomenon. And, instead of blaming our students for not being positively systematic in their performance, it would be better if we try to know the reasons for their varied performance. In this regard, I can suggest two major reasons: (1) the nature of the task itself, and (2) the deficiency of students' knowledge (See Sheen, 2005; Han, 2005; Lee, 2005; Poole, 2003, 2005).

First, it can be argued that each of the three tasks used in the present study is a multidimensional activity which requires L2 learners to do more than one thing simultaneously. This argument is compatible with the principles of the attention theory (James, 1890). Two important features within the phenomenon of attention have been identified: (1) an individual can attend to only one thing at a time or think only one thought at a time; (2) attention appears to be serial, and we find it very difficult to mix certain activities. That is, the focus of attention is only on one place at one time. Relatedly, Broadbent (1991) pointed out that our ability to attend to several sources of information. Simultaneously is severely restricted. Consequently, a human who must process information that exceeds his channel capacity will inevitably make errors. In the listening comprehension (LC) subtest, for example, the demands on short-tern memory exceed human beings' cognitive capacity. As Fodor, Bever, and Garrett (1974) suggest, native language words are held in short-term memory only long enough for the listener to organize them into clauses and to extract the meaning that they convey. As soon as the listener has interpreted the clause, the elements that made it up are purged from memory in order to make room for incoming sounds. Foreign language input seems to be processed in the same way, as Call (1985) argued. In this regard, Miller (1956) and Klatzky (1995) claimed that the capacity of short-term memory is limited to about seven units, plus or minus two (See Reynolds, 2010; Rosenberg, 2009; Schmidt, 2001; Sharwood-Smith, 2004; Spada \& Lightbown, 2008).

Second, $L_{2}$ learners may appear to have the necessary knowledge to make correct responses; however, they are unable to display this knowledge while listening, reading and solving grammatical problems. Gelman and Meck (1986: 30) rightly points out that "knowledge of the correct principles does not guarantee correct performance. Principles specify characteristics that a correct performance must possess, but they do not provide recipes for generating a plan for correct performance. Nor do they guarantee correct execution of plan" (See Weijen et al., 2009).

In addition, it has been found that deficiency in students' conceptual knowledge results in incorrect procedures and, in turn, poor performance and incorrect rationalizations. And, the differences in the quantity and quality of conceptual knowledge result in adopting different procedures, regardless of being correct or incorrect (El-daly,1993). Consequently, in thinking about $\mathrm{L}_{2}$ learners' performance as on object of study, the essence of the underlying knowledge that accounts for their performance must be examined deeply. It must be kept in mind that when we talk about knowledge, we don't

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only talk about the presence versus absence of knowledge, but also the depth, completeness, and accuracy of such knowledge.

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