



## ON THE VARIABILITY IN L<sub>2</sub> LEARNERS' PERFORMANCE: FOCUS ON THE OUTCOME OF L<sub>2</sub> ACQUISITION

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### ABSTRACT

It is quite known that L<sub>2</sub> acquisition is a complex process in which many factors are involved. Relatedly, it is not easy to decide which factor is actually superior to another. Accordingly, one of the challenges for L<sub>2</sub> acquisition is to explain not just success with L<sub>2</sub> but also failure. That is, L<sub>2</sub> researchers have wondered about why most L<sub>2</sub> learners do not achieve the same degree of proficiency in an L<sub>2</sub> as they do in their L<sub>1</sub>. The major question, then, is why variations occur in the performance of L<sub>2</sub> learners.

The present study addresses the debate on the causes of variability in L<sub>2</sub> learners' performance. First, it traces the conceptual framework of such a debate and, in so doing, a multidisciplinary approach was adopted. Second, it reports the results of an experiment conducted on 180 students in the Department of English, Faculty of Arts, Minufiya University, Egypt. Results were obtained and conclusions were made.

**Keywords:** Variability; L<sub>2</sub> learners' proficiency, Gender.

### INTRODUCTION

It is well known that some people learn a second language more easily than others. Relatedly, L<sub>2</sub> 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).

The most fundamental change in the area of L<sub>2</sub> 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<sub>2</sub> acquisition research, then, is to explain not just

success with L<sub>2</sub> but also failure. Relatedly, L<sub>2</sub> researchers have wondered about why most L<sub>2</sub> 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<sub>2</sub> learner. In this connection, Ritchie and Bhatia (1996: 23) maintain that "we stress the fact that adult L<sub>2</sub> production at any given point in the acquisition process is highly variable, changing systematically in a number of ways under a variety of conditions". 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; Eslamin & Fatahi, 2008; Hoey, 2007; Jiang, 2007; Kimberly, 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).

**The Purpose:** This study addresses the debate on the causes of variability in L<sub>2</sub> learners' performance. First, it traces the conceptual framework of such a debate by critically review the research that was carried out on such an issue. In so doing, a multidisciplinary approach was used with a view to discussing it from all its aspects. Second, this study summarizes the results of an empirical study, conducted by the author, on speakers of English as an L<sub>2</sub>.

#### REVIEW OF LITERATURE

##### The Nature of L<sub>2</sub> Learners' Knowledge

**(Competence):** In recent years, the nature of competence in a language and how it is to be distinguished from performance is an issue which has constantly resurfaced (Brown, 1996). Knowing a second language well means knowing information similar to that of a native speaker of a language. Given the complexity of the knowledge that must be learned, it should be clear that the study of the acquisition of that knowledge is a highly complex field. The following section is meant to examine the interrelated components of L<sub>2</sub> learners' knowledge or competence, which is considered a major reason for the variations in their performance (El-Daly, 1993).

The notion of competence is one of the most controversial and confusing terms in use in the fields of Linguistics and Applied Linguistics. Among the causes of this confusion is the ordinary 'common sense' use of the word 'competence', as reflected in current dictionary definitions. A typical example is to be found in the Collins English Dictionary (1979), which gives as its main definition, "the condition of being capable: ability". Everybody, thus, has a natural tendency to associate 'ability' with 'competence'. Turner (1980) distinguishes between 'cognitive competence' and 'social competence'. The former concerns, among other things, 'those basic

skills which are a precondition for subsequent skills' (p. 39), while the second involves, 'certain interpersonal problem-solving skills' (p. 43). Competence, according to Turner, is seen as relating to "an underlying organization of skills" (p. 40). In addition, when Burner (1973) says that "what seems to be at work in a good problem-solving 'performance' is some underlying competence in using the operation of physics .or whatever", he seems to have in mind some idea of skill in using knowledge. For Burner, 'what is learned is competence, not particular performance' (p. 111). He goes on to equate learning "competence" with learning to be skillful with a body of knowledge" (see Robinson & Ellis, 2011). According to Taylor (1988), the confusion arises from the fact that different writers use the term in different ways. He points out that some writers use the term to refer to something absolute whereas others appear to mean by it something 'relative'. This latter group seems to include the idea of "ability" within competence, thus equating it with 'proficiency' (p. 148).

The clarity of the distinction drawn by Chomsky between 'knowledge' as represented by competence and 'putting to use that knowledge' is furthermore firmly established by such statements as the following: "A person who has learned a language has acquired a system of rules that relate sound and meaning in a certain specific way. He has, in other words, acquired a certain competence that he puts to use in producing and understanding speech" (Chomsky, 1970, p.184). Chomsky's idea of competence has nothing to say about language use, or about ability to use the language knowledge represented as competence, or about how the language user makes use of his knowledge, or even about how competence is acquired. Simply, Chomsky is using the term 'competence' as a technical linguistic term. For him, linguistics is about grammar, and competence, being a technical linguistic term also concerns grammar, or more precisely "knowledge" of grammar. Chomsky distinguishes two types of competence: (1) pragmatic competence, and (2) grammatical competence (Chomsky, 1977, p.40).

Pragmatics is concerned with the role played by non-linguistic information such as background knowledge and personal beliefs in our use and

interpretation of sentences. Grammatical competence, on the other hand, subsumes three primary types of linguistic ability: syntactic, semantic and phonological. Chomsky's notion of competence demonstrate how complex and important linguistic competence is, and, if native speakers of English have grammatical competence by intuition, this may demonstrate how much effort second and foreign language learners have to exert to learn English. However, grammatical competence, as described above, is only one part of "proficiency". The other part is what has been known as 'communicative competence' (Hymes, 1972).

#### **Cognitive Psychology and L<sub>2</sub> Learners' Knowledge :**

Greeno, Riley and Gelman (1984) have pointed out that competence has three main components: (1) conceptual, (2) procedural, and (3) utilization competence. Conceptual competence includes understanding of general principles of the task domain that constrain and justify correct performance. Procedural knowledge, on the other hand, includes understanding of general principles of action, relating actions with goals and with conditions of performance. Stated differently, conceptual competence represents understanding of principles in a form that enables their use in planning, whereas procedural competence refers to knowledge of general principles involving relations of goals, actions, and requisite conditions for actions. Silver (1986, p.185) has made the following analogy: "A person who knows how to prepare a meal only by following explicit cookbook directions is left almost helpless when a needed ingredient is unavailable or when the cookbook fails to be explicit about all the details; the person is unlikely to modify a recipe according to taste or to create other recipes based on one found in the cookbook. But when the person's procedural knowledge of cooking is enriched with conceptual information about the nature of spices, the role of various ingredients in the cooking process, and so on, then the person is likely to be able to apply the knowledge to novel situations".

The importance of discussing this relationship stems from the fact that we need to know whether our students rely on both types of knowledge when they perform language task, or they rely on one type more than the other. How does lack of knowledge in

either type affect students' performance? As Hiebert and Lefevre (1986, p.9) point out, "students are not fully competent in mathematics if either kind of knowledge is deficient or if they both have been acquired but remain separate entities". Silver (1986, p.181), also maintains that "it is the relationship among, and not the distinctions between, elements of procedural and conceptual knowledge that ought to be of primary interest". In fact, Silver's argument is based on the premise that "although we can think of the distinctions between static elements of one's procedural or conceptual knowledge base, when knowledge is used dynamically to solve a problem or perform some non-trivial task, it is the relationships that become of primary importance" (p. 180) (See Echevarria et al., 2004; Ellis, N., 2002; De Bot et al., 2007; Anne Brooks-Lewis, 2009; Wong, 2003). If conceptual knowledge is linked to procedures it can result in the following: (a) Enhancing problem representations and simplifying procedural demands; (b) Monitoring procedure selection and execution; and Promoting transfer and reducing the number of procedures required.

In this regard, El-Daly (1993) found that deficiency in his subjects' conceptual knowledge resulted in incorrect procedures and, in turn, poor performance and incorrect rationalizations for their answers. Also, differences in the quantity and quality of conceptual knowledge resulted in adopting different procedures, regardless of being correct or incorrect. That is because the subjects differed from each other in terms of quantity and quality of conceptual knowledge, each subject has his own approaches in solving the language problems he has to solve. In addition, accurate conceptual knowledge can lead to accurate procedural knowledge and, in turn, successful solutions for the problem. It must be borne in mind, however, that having an accurate and appropriate conceptual knowledge is not sufficient for successful performance if it is not linked to appropriate procedural knowledge. One of the factors that determined the subjects' success or failure in connecting both types of knowledge was the degree of difficulty of the structure and how specific or highly-advanced it was. In such a case, the ability to 'transfer' the already existing knowledge is what distinguishes experienced or advanced learners from novice ones. Finally, the

subjects of El-Daly' study were able to connect their conceptual knowledge to procedural knowledge in simple tasks. However, they failed to do the same in complex structures. This may imply that these subjects have reached what Skemp (1978) calls 'instrumental understanding' but fail to display 'relational understanding' (See Weijen et al., 2009; Stigler & Hiebert, 2009). To close up this section, it may be pertinent to cite Spolsky's words (1989: 44): "In looking at variation, our emphasis has been on language knowledge, on what is known. But it has been a critical observation of modern language teaching that languages are not just known, but used". Moreover, L<sub>1</sub> learners' performance may vary as a result of the distance between L<sub>1</sub> and L<sub>2</sub>. It must be pointed out that the variation in L<sub>2</sub> learners' performance is quite related to the problem of difficulty in L<sub>2</sub> learning. Therefore, in one way or another, specialists from various disciplines have attempted to predict and find the causes of learning difficulties. The most observable manifestations of the areas of difficulty in L<sub>2</sub> learning are the errors made by the learner.

#### **L<sub>2</sub> Learners' Knowledge: Applied Linguistics' View:**

The non-interface position has been advanced most strongly by Krashen (1982: 112). Krashen identifies two types of linguistic knowledge in second language acquisition: acquisition and learning. He argues that acquired knowledge and learned knowledge are entirely separate and unrelated. In particular, he disputes the view that learned knowledge is converted into acquired knowledge. Krashen claims that: "The use of the conscious grammar is limited. Not everyone monitors. Those who do only monitor some of the time and use the monitor for only a sub-part of the grammar ... the effect of self-correction on accuracy is modest". According to Krashen's Monitor Hypothesis, learning has only one function, and that is as a monitor or editor and that learning comes into play only to make changes in the form of our utterances, after it has been produced by the acquired system. Krashen suggests that second-language performers can use conscious rules only when four conditions are met. Those conditions are necessary and not sufficient; that is, a performer may not fully utilize his conscious grammar even when all four conditions are met. These conditions are (1) sufficient time; (2)

focus on form; (3) knowing the rule, and (4) the rule needs to be simple (See Tarone, 1984; Sharwood-Smith, 2004). According to this position, it can be argued, for example, that successful written performance does not necessarily mean coherent and complete linguistic knowledge and vice versa. Consequently, it would be a mistake to judge L<sub>2</sub> learners' linguistic knowledge on the basis of their actual performance, since both knowledge and performance are unrelated. Although linguistic knowledge appears, in some situations, to be a factor in determining the type of performance, it cannot be concluded that it is a prerequisite to successful performance. I may further argue that, based on the non-interface position, linguistic knowledge can help L<sub>2</sub> learners to make changes in their linguistic output provided that there is sufficient time for the learners to focus on form and that they know the rules. In some cases, however, L<sub>2</sub> learners may not be able to use their linguistic competence even if those conditions are met.

The interface position has been argued from a weak and strong position. The weak interface position was proposed by Seliger (1979). Seliger suggests that different learners end up with different representations of the rules they have been taught and, in turn, these rules do not describe the internal knowledge that is called upon in natural communication. The strong interface is advocated by Stevick (1980), Bialystok (1978, 1979), and Sharwood-Smith (1981), among others. This position would predict that L<sub>2</sub> learners' linguistic knowledge interacts with their communicative experiences and, as a result, both competence and performance can be mutually enhanced. That is, students' linguistic competence can be improved during the composing process and their written production will become better (See Spada & Lightbown, 2008).

The variability position maintains that L<sub>2</sub> learners' performance varies according to the kind of language use that they engage in and the kind of knowledge that they acquire. That is, different kinds of knowledge are used in different types of language performance. In this regard, El-Daly (1993) suggests that the nature of the task that L<sub>2</sub> learners are performing determines the, strategies and the outcome of L<sub>2</sub> learners' attempts to solve the language problem, they are going to solve. In his

investigation of the relationship between conscious knowledge of grammar and the accuracy of L<sub>2</sub> learners' written production, El-Daly (1993) found that students' errors in essay writing were not just due to carelessness or forgetfulness as some of the subjects claimed during the interview. Rather, students' deficiency in their knowledge of grammar results in inaccurate composition writing and successful correction of errors. When asked to correct their errors, L<sub>2</sub> learners with deficiency in conscious knowledge of grammar seem to rely on their feelings about the structure of the target language. But, since these 'feelings' are based on incorrect knowledge, L<sub>2</sub> learners tend to follow false assumptions and, in turn, their corrections of errors are unsuccessful (See Rosenberg, 2009; Saeidi & Chong, 2003).

The above discussion suggests that morphosyntactic competence is an essential component; however, it does not necessarily guarantee coherent and accurate written texts. For example, native speakers control the grammar of their language, either consciously or unconsciously; yet, they cannot write them, and very often cannot produce a coherent summary, essay, or term paper. In fact, several national studies have shown that students in the United States perform at a remarkably low level on writing tasks (See Boyer, 1983; Mouhanna, M. & Mouhanna, L., 2010).

**Information-Processing Approaches** : In the late 1970s and early 1980s, some scholars (Bialystok, 1978, 1982; McLaughlin, 1978) began to apply general cognitive psychological concepts of computer-based information processing models to the investigation of SLA. Under this approach, SLA is viewed as the development of a highly complex skill-like the attainment of other, non-linguistic skills, such as playing chess or mathematical problem solving (See Schmidt, R., 2001; Ellis, N., 2005; Manghubi, 2006). The information-processing approach distinguishes between two types of processes: controlled and automatic. Controlled processing requires attention and is sharply limited in capacity; automatic processing; which does not require attention; takes up little or no processing capacity. The learner is claimed to begin the process of acquisition of a particular aspect of the L<sub>2</sub> by depending heavily on controlled processing of the



L<sub>2</sub>; through practice, the learner's use of that aspect of the L<sub>2</sub> becomes automatic. In the process of acquisition, learners shift from concrete, novice processing to more abstract, expert style by restructuring their representations of the relevant processes. (Ritchie & Bhatia, 1996).

Another factor that may influence performance in different tasks is the cognitive complexity of the activity the learner is asked to perform. Ellis (1982) devised a test for use with L<sub>2</sub> learners. He found that the cognitive complexity of specific tasks influenced the success with which the L<sub>2</sub> learners performed the tasks, and also the complexity and accuracy of their use of language. There is also evidence from the case studies (e.g. Hatch 1978) to show that L<sub>2</sub> learners benefit in much the same way as L<sub>2</sub> learners from talking about the here-and-now. Ellis (1986: 89) points out that the explanation for the differential effects of tasks in interlanguage performance lies in the amount of attention the learners is able to pay to what he is saying: "In an elicitation task such as translation the learners is required to compare the target language with his L<sub>1</sub>, so it is not surprising that L<sub>1</sub> interference is more evident. In a task which is cognitively complex, the learner's attention is likely to be taken up with non-linguistic issues, with the result that he cannot focus on those interlanguage forms that are the most recent additions to his competence and that are therefore not fully automatized. The resulting speech is likely to be less target-like, less complex and more fragmentary than in easy tasks".

It is clear, therefore, that the nature of the task determines the kind of language-learner language that is observed. El-Daly (1995, 1997) found that his subjects' overall performance in two listening tasks was not totally systematic or unitary all the way. That is, their performance differed from one listening task to another. In this sense, the study supports the variability position (McLaughlin, 1978; 1982; Bialystock, 1982). Stated simply, the variability position maintains that L<sub>2</sub> learners' performance varies according to the kind of language use that they engage in and the kind of knowledge that they acquire. El-Daly argues that: "L<sub>2</sub> learners' proficiency is not an absolute construct; rather, it relies on what kind of language task the learner is performing.... That is, we will be mistaken to expect the learner

who performs highly in one task to, necessarily perform at the same high or low level in another task ... so, we should accept the variability in our students' performance". Fillmore (1976) found that some of her subjects produced a high instance of one-word and fragmentary utterances in elicited data, while their spontaneous speech contained higher proportions of complex utterances.

**Variation from a Sociolinguistics' Perspective:** The relevance of sociolinguistics to second language acquisition is two-fold. First, it is concerned with variation; the product, process, acquisition, and cognitive location of such variation. Second, it is concerned with sociological and social-psychological aspects of language (Preston, 1996: 229). Ellis (1986: 97) points out, 'this perspective not only enables a more accurate and reliable picture of interlanguage to be drawn, but also provides insights into the mechanisms by which the learner passes from one developmental stage to the next. It provides, therefore, a much more powerful account of SLA than early interlanguage theory'. This perspective will be examined next (See Trenkic, 2007; Brantmeirer, 2003).

The earliest work on variable language focused on geographical distribution, but not for its own sake. That is, historical linguists investigated area diversity in order to test the major tenet of the late 19<sup>th</sup> century European Neo-grammarians: that sound change was without exception. In this regard, two approaches, in particular, have had considerable influence on L<sub>2</sub> acquisition. These approaches are (1) the Labovian paradigm, and (2) the dynamic paradigms. William Labov established an approach to quantitative studies of language variation. The central hypothesis of this approach is that the alternative forms of linguistic elements do not occur randomly; and the frequency of their occurrences is predicted by (1) the shape and identity of the element itself and its linguistic context; (2) stylistic level; (3) social identity, and (4) historical position (assuming that one form is on the way in, the other on the way out). According to Labov's "observer' paradox", the more aware respondents are that speech is being observed, the less natural their performances will be (Labov, 1972). In her study, Tarone (1982) suggests that the stylistic continuum of the language acquirer operates much like that of

the native speaker. The more attention the learner pays to speech, the more prestige forms are likely to occur (where prestige forms are construed to be target language (TL) forms or learners' understandings of what those forms are). In her account, stylistic fluctuation is due to the degree of monitoring or attention to form, and varying degrees of attention to form are by-products of the amount of time that various language tasks allow the language user for monitoring (for example, writing perhaps the most spontaneous, conversation the least) (See Brown, 2009; Brantmeier, 2004).

Bailey (1974) summarizes an alternative approach to variation and change known as wave theory. From this point of view, synchronic language variation is seen as a by-product of the spread of rule changes over time. This approach has been especially popular in the study of Creole language communities. Bickerton (1975) claims that such rule spread is easy to see there; first, because change (under pressure from a standard language) is often rapid and, second, because forms that might have gone out of use are retained even by speakers who have learned new ones, because the old forms have symbolic, speech-community membership value (See Lanfer, Girsai, 2008; Larsen-Freeman & Cameron, 2007; Kissau, 2007).

**Variation among Language Users: Individual Characteristics:** The two main, well-documented findings of SLA research of the past few decades are as follows: Second language acquisition is highly systematic and (2) second language acquisition is highly variable. Although these two statements must appear contradictory at first sight, they are not. The first one primarily refers to what has been called the route of development (the nature of the stages all learners go through when acquiring the second language – L<sub>2</sub>). The route remains largely independent of both the learner's mother tongue (L<sub>1</sub>) and the context of learning (e.g. whether instructed in a classroom or acquired naturally by exposure). The second statement usually refers to either the rate of the learning process (the speed at which learners are learning the L<sub>2</sub>), or the outcome of the learning process (how proficient learners become), or both. We all know that both speed of learning and range of outcomes are highly variable

from learner to learner: some do much better much more quickly than others (Myles, 2004, p. 1).

The fact that some adults are more successful at acquiring an L<sub>2</sub> than others has led to investigations of individual characteristics. Researchers sought to explain this variance among learners in terms of teaching methods (Chasatin, 1969), intelligence (Pimsleur, Mosberg & Morrison, 1962), analytic language skills, referred to as 'foreign language aptitude' (Carroll & Sapon, 1959), attitude (Gardner & Lambert, 1972), cognitive variables (Naiman, Frohlich & Stern, 1975) and social factors (Schumann, 1976). However Ellis (1986: 100) points out that the identification and classification of the different individual factors has proved to be problematic. The main difficulty is that it is not possible to observe directly qualities such as aptitude, motivation or anxiety. Each factor is a complex of features which are manifest in a range of overlapping behaviors. Ellis proposed a distinction between two main types of factors that influence L<sub>2</sub> acquisition: (1) Personal factors that can be grouped together under three headings (a) group dynamics, (b) attitudes to the teacher and course materials, and (c) individual learning techniques; (2) General factors which include age, aptitude, cognitive style, motivation and personality. Izzo (1984), on the other hand, divided the influencing factors into three categories: personal, situational, and linguistic factors (See Lightbown & Spada, 2006; Loewen & Thompson, 2009).

In addition to the problematic nature of identifying and classifying the different individual factors that influence L<sub>2</sub> acquisition, there is some difference of opinion concerning the role of these individual factors in L<sub>2</sub> acquisition. Those who are interested in the acquisition process as it occurs in adolescents or adults learning foreign languages in formal classroom settings believe that individual variation differentiates the process of L<sub>2</sub> acquisition from that of L<sub>1</sub> acquisition. Whereas L<sub>1</sub> acquisition is quite uniform across the population in terms of developmental scheduling, the strategies used to achieve it, and the control over the language which is ultimately achieved, there is considerable variation among individuals in the ability to acquire L<sub>2</sub>. Some individuals seem to acquire languages after the first with ease while others find it difficult to

learn later languages. The researchers who take this position maintain that the reason for the phenomenon is due to variations in learner characteristics such as motivation, attitudes and language learning aptitude.

The second and opposing view is that individual variation plays no greater role in the acquisition of L<sub>2</sub> than it does in the learning of L<sub>1</sub>; that is, its role, if any, is trivial. This position is taken by those investigators who have been looking at the acquisition of L<sub>2</sub> by relatively young children in naturalistic settings where the language is not taught explicitly. Their aim, therefore, is to demonstrate that the same process which accounts for the learning of L<sub>1</sub> is also responsible for the learning of later ones. In any case, however, it is my content that individual differences have a lot to do with L<sub>2</sub> learners' variation in mastering L<sub>2</sub> (Poole, 2005; Reynolds, 2010).

Age is the variable that has been most frequently considered in discussions of individual differences in SLA for two main reasons: (1) the ease with which it can be measured; that is, it can be described reliably and precisely, and (2) the need to submit to empirical investigation the commonly held belief that children are better language learners than adults. However, there is a noticeable lack of agreement in the conclusions reached by those who investigated the effects of age on L<sub>2</sub> acquisition. Regardless of this remark, age has always been considered as an important factor, and its importance is not in itself but because of various physiological and psychological concomitants. All other factors tend to change with the learner's age, that is, a discussion of particular age levels necessarily involves the corresponding changes in these other factors. According to Ellis (1986), it is necessary to separate out the effects of age on the route of SLA from those on rate or success of SLA. Bailey et al. (1974) and Fathman (1975) found that age does not alter the route of acquisition. However, rate and success of SLA appear to be strongly influenced by the age of the learner. That is, if learners at different ages are matched according to the amount of time they have been exposed to the L<sub>2</sub>, it is the older learners who reach higher levels of proficiency. It might be pertinent here to shed light on some of the differences between young and old

learners' differences that may affect their acquisition of L<sub>2</sub>.

The younger learner differs from older one chiefly as regards habits. The younger learner is usually more elastic, more able to learn in new directions. He does not have sets of reflexes and habits which the adult has acquired and practiced. In a given learning situation, the difference in success between the learner of six and one of 16 or 27 will rest primarily on the influence of these existing habits. If some activity could be found which had no relation whatever to the past experience of the older learner, then habit would make no difference. But, the older learner's existing habits, if they can be put to good use in performing the new task, will give him an advantage. If the new task requires modification or inhibition of these habits, they will interfere with his performance of new task (Kimberly, 2009). On the basis of what has been mentioned above, the advocates of an early beginning in rest their case on several arguments, many of which involve hypotheses about the habits of an of learner. One argument has a physiological basis and holds that increasing age produces greater rigidity of the speech organs and muscular speech habits. A second argument also rests largely on habit, that after fifteen or twenty years of using one set of highly complicated and coordinated movements in speech, the student will never quite master another because habits of speech production in his native language will continually interfere. A third argument also emphasizes habit and maintains that after the student has established habits of thinking in his native language he will find it much more difficult to begin thinking in a second one and hence to speak it fluently (See Knutson, 2006; Hoey, 2007). Moreover, the elementary-school age has been advocated as the best period for language learning because the child is less self-conscious. He is more willing to make strange sounds and to take part in activities which the self-conscious adult will shun for fear of being laughed at.

Motivation is another source of the differences between the young child and the older learner. Generally, the adult is the better motivated; but, like so many other influences on language learning, this one may work for good or ill. The child can play at language learning. In informal situations



he casually picks up the new language from his playmates or nurses. In formal instruction, grade school marks usually are not taken so seriously and do not entail the lasting consequences that high school and college records may. The child profits because less is expected of him, and this fact fosters lack of self-consciousness and ease of learning. The adult learner, on the contrary, usually has more at stake. His business or professional success may directly depend on his linguistic achievement, and this will put a lot of pressure on the adult learner (Izumi, 2002; Jiang, 2007; Ellis, R. et al., 2001).

Motivation may be considered as having two chief aspects; intensity and kind. Usually they are directly related, and the "kind" of motivation is essentially synonymous with the purpose for which the students want the language. Thus, for example, the motivation of the student who has immediate professional interest in a language is certain to be more intense than that of the student who is merely satisfying a requirement or who thinks he may go abroad sometime. Conversely, weak motivation is usually connected with only a vague purpose or, more commonly, no purpose at all. In their work on motivation in L<sub>2</sub> learning, Gardner and Lambert (1972) introduced us to the terms "integrative" and "instrumental" orientation. They defined "integrative motivation" as "a willingness or a desire (on the part of L<sub>2</sub> learners) to be like representative members of the other language community, and to become associated, at least vicariously, with that other community (p.14). This means that the extremely integratively motivated learner is oriented principally towards members of the target language community, with whom he or she would like to develop personal ties. The opposite type of learner has few signs of interest in members of other cultural group, but is intent on using them and their language as an instrument of personal satisfaction for such benefits as social recognition or economic advantage. To put it differently, an instrumental orientation "is more self-oriented in the sense that a person prepares to learn a new code in order to derive benefits of a non-interpersonal sort" (Gardner & Lambert, 1972: 14). In addition, Brown (1981) identifies three types of motivation (1) global motivation, which consists of a general orientation to the goal of learning a L<sub>2</sub>; (2)

situational motivation, which is the motivation for performing particular learning tasks.

The chief differences which age produces in motivation are related to immediacy, and hence predictability, of use. The older learner generally has better motivation because his need is more likely to be immediate. He wants language skill for his further education, for his business, for his profession and for recreational use or for some other interest he has developed. Hence, because he knows he wants a language and why he wants it, he works harder to obtain it. This means that motivation is always connected with the purposes in view. The older learner is likely to know more clearly, not only that he wants to learn the language, but also what language and what he needs of it.

Another possibility that has been explored is differences in the affective states of young and older learners account for age differences in SLA. Neufeld (1978) distinguishes "primary" and "secondary" levels of language. Primary levels include a reasonably large functional vocabulary, and basic mastery of pronunciation and grammatical rules. Secondary levels include the ability to handle complex grammatical structures and different language styles. According to Neufeld, all learners have an innate ability to acquire primary levels (See Eskildsen, 2008). However, children are more likely to achieve secondary levels than adults because they are much more strongly motivated by the need to be accepted by their peer groups. According to Ellis (1986: 110), this theory can accommodate all the known facts about age differences in SLA. First, it explains why the route of acquisition is not influenced by age. If innate abilities account for the acquisition of primary levels, no differences in route between children and adults will be observed. Adults, however, will acquire primary levels more rapidly because of their greater cognitive abilities. The exception to this will be pronunciation, because of the difficulty of consciously manipulating this aspect of language. Children will prove the more successful learners, particularly when pronunciation is concerned, because they are strongly motivated to become part of the first language community and require a native-like accent to achieve this.

There are various theoretical perspectives toward language aptitude. From these different

perspectives rises a disagreement among researchers on whether the status of language aptitude is a general or a personal one. Language Aptitude, according to Ellis, is a general factor. However, the researchers who classify language aptitude as a personal factor believe that there are factors within the learner that must be taken into account. They also believe that descriptive analysis of the target language and accurate preparation of classroom material cannot insure second language learning (Izzo, 1984:6). In my view, language aptitude is a personal factor that distinguishes one person from another as far as the language acquisition ability is concerned (See Eslamim & Fatahi, 2008). Carroll (1963) argues that language aptitude (LAP) consists of four factors: phonetic coding, grammatical sensitivity, rote memory for foreign language materials, and inductive language ability. The phonetic coding ability is the ability of foreign language learner to store new language sounds in memory. Grammatical sensitivity refers to the ability of language learner to recognize the syntactical patterning of sentences in a language. Inductive ability is "the ability to examine language material, and from this to notice and identify patterns and correspondences and relationships that involve either meaning or grammatical form" (Carroll, 1973:8). Carroll concluded that language learners with a higher aptitude seem to learn faster than those with a lower aptitude. On the other hand, Pimsleur (1966) claims that language aptitude consists of three components verbal intelligence, auditory ability and motivation. Auditory ability was defined as the main factor differentiating normal achievers from under-achievers in foreign learning. One of the issues that still confuse researchers is whether aptitude is distinct from intelligence or not. Oiler (1980), for example, does not believe that they are separable. He argues that general intelligence and the ability to use language in language tests are essentially the same. On the other hand, Gardner and Lambert (1965) used a factor analysis to examine the relationship among intelligence, language aptitude and second language achievement. They proposed that there is such a thing as language aptitude separate from general intelligence. It seems to me that aptitude and intelligence are not separable. Both are related to

the performance of learners in classrooms and academic tests. It is noticeable that we use the words "smart or intelligent" to praise students who achieve well in the classroom and academic tests. Those students seem to have great abilities. However, some, if not the majority of those students cannot communicate in a way that matches their academic standing. Genesee (1976) found that although academic language skills correlate with intelligence, the ability to acquire interpersonal communication skills in second language does not. This may demonstrate that language aptitude is important in terms of high achievement in academic matters in the classroom, but it may not have anything to do with successful mastery of L<sub>2</sub>. By successful mastery of L<sub>2</sub> I mean the ability of L<sub>2</sub> learners to communicate in the target language effectively (See Dekeyser, 2003; Cohen, 2008; Conley, 2008; Bardovi-Harlig, 2006).

Schumann (1978) lists "attitude" as a social factor on a par with variables such as "size of learning group" and "motivation" as an affective factor alongside "culture shock". Stern (1983: 376-7) classifies learners' attitudes into three types: (1) attitudes towards the community and people who speak the L<sub>2</sub>; (2) attitudes towards learning the language concerned; and (3) attitudes towards language learning in general. In any case, it is not always clear in SLA research what the distinction is between attitudes and motivation. What matters here, however, is the role of attitudes and motivation in L<sub>2</sub> acquisition. The following is a summary of the major findings in this regard:

- 1) Motivation and attitudes are important factors, which help to determine the level of proficiency achieved by different learners.
- 2) The effects of motivation/ attitudes appear to be separate from the effects of aptitudes. The most successful learners will be those who have both a talent and a high level of motivation for learning.
- 3) In certain situations an integrative motivation may be more powerful in facilitating successful L<sub>2</sub> learning but in other situations instrumental motivations may count far more. Strong (1983) found that an Integrative orientation towards members of the target language group enhances acquisition of that language. However, Strong noticed that integrative motivation does not play

the same role in the second language learning of young children that it might for adults.

- 4) The level and type of motivation is strongly influenced by the social context in which learning takes place (Ellis, 1986:118-119). Corder (1967: 146) supports these findings when he argues that "given motivation, it is inevitable that a human being will learn a second language if he is exposed to the language data." Therefore, Nseendi (1984) proposes that activity and exercises should follow from consideration of the learner's motivation, and should make the learner want to learn (p.102). One complication in this regard is that motivation is subject to change within a fairly brief period of time. Motivation cannot be assumed to be as relatively constant as age, intelligence, and some other qualities of the student.

The experience of many teachers has suggested that certain types of personality might be more successful in learning a language than other. Many researchers especially in psychology, tried to explore those personal traits that are said to constitute the personality of an individual. Eysenck (1964) identifies two general traits: extrovert/ introvert and neurotic / stable. One of the intuitively appealing hypotheses that has been investigated is that extroverted learners learn more rapidly and are more successful than introverted ones. Krashen (1981) argues that an outgoing personality may contribute to "acquisition". The classroom learner may also benefit from being extroverted by getting more practice in using the L<sub>2</sub>. Rossier (1976) did find that his subjects' oral fluency correlated significantly with extroversion/ introversion measured by Eysenck's 'Personality Inventory'. However, Naiman et al. (1978) found no significant relationship between extroversion/introversion and proficiency (Basturkmen et al., 2004).

Another major aspect of personality that has been studied with regard to SLA is inhibition. It is hypothesized that the defensiveness associated with inhibition discourages the risk taking which is necessary for rapid progress in a L<sub>2</sub>. According to Krashen (1981), adolescent learners tend to obtain less input and to make less effective use of the input they do obtain than younger learners. According to Strong (1983), personality variables can be seen to be consistently related to the "natural

communicative language," but only erratically to the linguistic task language.

Finally, individuals may vary in their abilities to tolerate ambiguity. Ambiguity Tolerance (AT) can be defined as a person's ability to function rationally and calmly in a situation in which interpretation of all stimuli is not clear. In their attempt to identify the characteristics of good language learners, Naiman et al. (1975) found that (AT) was positively related to L<sub>2</sub> success. It was reported that those students who have a high intolerance of ambiguity may have a great deal of difficulty dealing with the amount of ambiguity present in the second language classroom, and therefore, may drop the subject as soon as possible (p. 259). This finding is consistent with the intuitive notion that a person who is more comfortable with ambiguity will function better in L<sub>2</sub> environment (See Beare & Bourdages, 2007; Poole, 2003).

To sum up, Gregg (1996: 53) points out that "it is true that L<sub>2</sub> learners often display a good deal of mismatch between their presumed knowledge and their use of that knowledge in performance; between what Bialystok and ShaRwood Smith (1985) characterize as knowledge and control, or what Anderson (1983) calls declarative and procedural knowledge. Nor is this mismatch necessarily without theoretical interest, as it suggests that competence may not in fact be a unitary object".

#### **Empirical Evidence**

**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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> learners' performance, and the factors that determine their performance in various language skills.

#### 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 (N=60 students) was, in turn, equally divided into two sub-groups; males (N=30), and females (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 g learning 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.

#### 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.

#### 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.

#### 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.

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.

## RESULTS / DISCUSSION

The present study was mainly undertaken to examine the phenomenon of variation and / or systematicity in L<sub>2</sub> 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 (See Appendix):

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 males 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. 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 L<sub>2</sub> 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).
- 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.
  - 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 males 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.
  - 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.

**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
	N	30	30	60
Beginners	X	517	567	1084
	X <sup>2</sup>	9825	11405	21230
Intermediate	N	30	30	60

	X	577	686	1263
	X <sup>2</sup>	11683	16988	28671
	N	30	30	60
Advanced	X	704	660	1364
	X <sup>2</sup>	18868	15682	34550
	N	90	90	180
Total	X	1798	1913	3711
	X <sup>2</sup>	40376	44075	84451

**Table (2)**

Group	N	X	X <sup>2</sup>	$\bar{X}$	SD
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 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 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 (3)

		N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	Males	30	517	9825	17.23	5.52
	Females	30	567	11405	18.90	4.79
<b>Intermediate</b>	Males	30	577	11683	19.23	4.42
	Females	30	686	16988	22.87	6.59
<b>Advanced</b>	Males	30	704	18868	23.47	8.85
	Females	30	660	15682	22.00	6.22

Table (4)

Comparison Groups	Means		Standard Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup>	17.23		5.52		1.52	Insignificant
Intermediate <sup>(2)</sup> Males		19.23		4.42		
Beginning <sup>(1)</sup>	17.23		5.52		3.22	0.01
Advanced <sup>(2)</sup> Males		23.47		8.85		
Intermediate <sup>(1)</sup>	19.23		4.42		2.31	0.05
Advanced <sup>(2)</sup> Males		23.47		8.85		

N<sub>1</sub> = N<sub>2</sub> = 30; T = 2.00 Significant at the level of 0.05; T = 2.66 Significant at the level of 0.01

Table (5)

Comparison Groups	Means		Standard Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup>	18.90		4.79		2.62	0.05
Intermediate <sup>(2)</sup> Females		22.87		6.59		
Beginning <sup>(1)</sup>	18.90		4.79		2.13	0.05
Advanced <sup>(2)</sup> Females		22.00		6.22		
Intermediate <sup>(1)</sup>	22.87		6.59		0.52	Insignificant
Advanced <sup>(2)</sup> Females		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 Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup>	18.07		5.24		**	0.01
Intermediate <sup>(2)</sup>		21.05		5.90	2.90	
Beginning <sup>(1)</sup>	18.07		5.24		**	0.01
Advanced <sup>(2)</sup>		22.00		6.22	3.85	
Intermediate <sup>(1)</sup>	21.05		5.90		1.33	Insignificant
Advanced <sup>(2)</sup>		22.73		7.68		

$N_1 = N_2 = 60$ ; 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 (2x3) in the subjects' scores in Listening Comprehension: Gender x Language Level**

Source of Variance	Squares	Degrees of 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<sub>2</sub> learners' interlanguage. 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. **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
<b>Beginners</b>	N	30	30	60
	X	620	679	1299
	X <sup>2</sup>	13458	15927	29385
<b>Intermediate</b>	N	30	30	60
	X	791	793	1584
	X <sup>2</sup>	22019	21791	43810
<b>Advanced</b>	N	30	30	60
	X	934	906	1840
	X <sup>2</sup>	29974	27840	57814
<b>Total</b>	N	90	90	180
	X	2345	2378	4723
	X <sup>2</sup>	65451	65558	131009

**Table (9)**

Group	N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	60	1299	29385	21.65	4.59
<b>Intermediate</b>	60	1584	43810	26.40	5.76
<b>Advanced</b>	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)**

		N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	Males	3	62	1345	20.6	4.64
		0	0	8	7	
	Females	3	67	1592	22.6	4.32
		0	9	7	3	
<b>Intermedi ate</b>	Males	3	79	2201	26.3	6.23
		0	1	9	7	
	Females	3	79	2179	26.4	5.26
		0	3	1	3	
<b>Advanced</b>	Males	3	93	2997	31.1	5.46
		0	4	4	3	
	Females	3	90	2784	30.2	4.00
		0	6	0	0	

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) 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 (11)

Comparison Groups	Means		Standard Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning Intermediate	20.67	26.37	4.64	6.23	3.95	0.01
Beginning Advanced	20.67	31.13	4.64	5.46	7.86	0.01
Intermediate Advanced	26.37	31.13	6.23	5.46	3.09	0.01

N = N<sub>2</sub> = 30; 2.66 Significant at 0.01; 2.00 Significant at 0.05

Table (12)

Comparison Groups	Means		Standard Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning Intermediate	22.63	26.43	4.32	5.26	3.01	Insignificant
Beginning Advanced	22.63	30.20	4.32	3.99	6.93	0.01
Intermediate Advanced	26.43	30.20	5.26	3.99	3.08	0.01

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 Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup> Intermediate <sup>(2)</sup>	21.65	26.49	4.59	5.76	4.95	0.01
Beginning <sup>(1)</sup> Advanced <sup>(2)</sup>	21.65	30.67	4.59	4.81	10.42	0.01
Intermediate <sup>(1)</sup> Advanced <sup>(2)</sup>	26.40	30.67	5.76	4.81	4.37	0.01

N<sub>1</sub> = N<sub>2</sub> = 60; 2.62 Significant at 0.01; 1.98 Significant at 0.05

The above table (Table 13) 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) 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<sub>2</sub> 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.

**Table (14): Analysis of variance (2x3) 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.

**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
<b>Beginners</b>	N	30	30	60
	X	727	854	1581
	X <sup>2</sup>	18407	24988	43395
<b>Intermediate</b>	N	90	30	120
	X	2570	784	886
	X <sup>2</sup>	77495	21208	27070
<b>Advanced</b>	N	30	90	60
	X	936	2606	1511
	X <sup>2</sup>	30260	78538	39615
<b>Total</b>	N	60	60	180
	X	1740	1925	5176
	X <sup>2</sup>	52058	64355	156028

**Table (16)**

Group	N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	60	1511	39615	25.18	5.10
<b>Intermediate</b>	60	1740	52058	29.20	5.16
<b>Advanced</b>	60	1925	64355	32.8	6.56

The above tables (15 & 16) 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) 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 (17)

		N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	Males	30	727	18407	24.23	5.13
	Females	30	784	21208	26.13	4.90
<b>Intermediate</b>	Males	30	854	24988	27.47	4.75
	Females	30	886	27070	29.53	5.49
<b>Advanced</b>	Males	30	989	34095	32.97	7.05
	Females	30	936	30260	31.20	5.94

Table (18)

Comparison Groups	Means		Standard Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
	Beginning	24.23		5.13		
Intermediate		28.47		4.75		
Beginning	24.23		5.13		5.40	0.01
Advanced		32.97		7.05		
Intermediate	28.47		4.75		2.85	0.01
Advanced		32.97		7.05		

N<sub>1</sub> = N<sub>2</sub> = 30; 2.66 Significant at 0.01; 2.00 Significant at 0.05

The above table (18) 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) 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 Beginning 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 Deviations		T	Signifi.
			$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning females) <sup>(1)</sup>	(males +	25.18		5.10				
Intermediate females) <sup>(2)</sup>	(males +		29.00		5.16	4.04	0.01	
Beginning females) <sup>(1)</sup>	(males +	25.18		5.10				
Advanced females) <sup>(2)</sup>	(males +		32.08		6.58	6.37	0.01	
Intermediate females) <sup>(1)</sup>	(males +	29.00		5.16				
Advanced females) <sup>(2)</sup>	(males +		32.08		6.58	2.83	0.01	

$N_1 = N_2 = 30$ ; 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 (2x3) in the subjects' scores in the (RC) subtest: Gender x Language Level

Source of Variance	Squares	Degrees of 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 in 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<sub>2</sub> learners' interlanguage.

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.

**Table (22): Descriptive statics of all subjects' performance in the Reading Comprehension (RC) subset**

		Males	Females	Total
<b>Beginners</b>	N	30	30	60
	X	1864	2030	3894
	X <sup>2</sup>	119192	140360	259552
<b>Intermediate</b>	N	30	30	60
	X	2222	2365	4587
	X <sup>2</sup>	167972	191815	359787
<b>Advanced</b>	N	30	30	60
	X	2627	2502	5129
	X <sup>2</sup>	240979	213972	454901
<b>Total</b>	N	90	90	180
	X	6713	6897	136100
	X <sup>2</sup>	528143	546147	1074290

**Table (23)**

Group	N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	60	3894	259552	64.90	10.67
<b>Intermediate</b>	60	4587	359787	76.45	12.32
<b>Advanced</b>	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)**

		N	X	X <sup>2</sup>	$\bar{X}$	SD
<b>Beginners</b>	Males	30	1864	119192	62.13	10.61
	Females	30	2030	140360	67.67	9.99
<b>Intermediate</b>	Males	30	2222	167972	74.07	10.64
	Females	30	2365	191815	78.83	13.38
<b>Advanced</b>	Males	30	2627	240979	78.54	19.10
	Females	30	2502	213972	73.40	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 Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup>	62.13		10.61		4.28	0.01
Intermediate <sup>(2)</sup> Males		74.07		10.64		
Beginning <sup>(1)</sup>	62.13		10.61		6.27	0.01
Advanced <sup>(2)</sup> Males		87.57		19.10		
Intermediate <sup>(1)</sup>	74.07		10.64		3.33	0.01
Advanced <sup>(2)</sup> Males		87.57		19.10		

$N_1 = N_2 = 30$ ; 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 Deviations		T	Significant
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning <sup>(1)</sup>	67.67		9.99		3.60	0.01
Intermediate <sup>(2)</sup> Females		78.83		13.38		
Beginning <sup>(1)</sup>	67.67		9.99		5.09	0.01
Advanced <sup>(2)</sup> Females		83.40		13.30		
Intermediate <sup>(1)</sup>	78.83		13.38		1.31	Insign.
Advanced <sup>(2)</sup> Females		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 28 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.

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.

Table (27)

Comparison Groups	Means		Standard Deviations		T	Signifi.
	$\bar{X}_1$	$\bar{X}_2$	SD1	SD2		
Beginning (males + females) <sup>(1)</sup>	64.90		10.67			
Intermediate (males + females) <sup>(2)</sup>		76.45		12.32	5.44	0.01
Beginning (males + females) <sup>(1)</sup>	64.90		10.67			
Advanced (males + females) <sup>(2)</sup>		85.48		15.59	8.01	0.01
Intermediate (males + females) <sup>(1)</sup>	76.45		12.32			
Advanced (males + females) <sup>(2)</sup>		85.48		16.59	3.36	0.01

$N_1 = N_2 = 60$ ; 2.62 Significant at 0.01; 1.98

Significant at 0.05

Table (28): Analysis of variance (2x3) in the subjects' scores in the subtest: Gender x Language Level

Source of Variance	Squares	Degree of 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.

**CONCLUSION**

The above findings support the variability position (McLaughlin, 1978). Stated simply, it maintains that L<sub>2</sub> 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 L<sub>2</sub> 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 L<sub>2</sub> 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-term 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<sub>2</sub> 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 L2 learners' performance as an 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 only talk about the presence versus absence of knowledge, but also the depth, completeness, and accuracy of such knowledge.

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