RESEARCH ARTICLE

ON THE UNSYSTEMATICITY IN L$_2$ LEARNING AND PERFORMANCE: REFLECTIONS FROM A MULTIPERSPECTIVE VIEW

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ABSTRACT

Language teachers are always interested in how they can help students learning a second language in a classroom setting become proficient in that language. This question may look simple; however, it is quite complex, and entails a lot of issues that have been investigated for a long time. The present study argues that unsuccessful performance is not the only problem that classroom teachers are facing. The problem becomes worse when students' performance becomes unsystematically incorrect. In such a case, it would be difficult for classroom teachers to pinpoint the exact problems these students are facing. To put it simply, although all language teachers want their students to perform successfully, no one can guarantee systematic successful performance. Accordingly L$_2$ researchers have wondered about why most L$_2$ learners do not achieve the same degree of proficiency in a second language, and why variations occur in the learning and performance of the individual L$_2$ learner.

The present study, then, addresses the debate on the causes of variability in L$_2$ learners' performance. First, it traces the conceptual framework of such a debate and, in so doing, a multidisciplinary approach was adopted. The purpose was to provide a thorough review on the issues pertinent to the present issue under investigation. Examples of such issues are (1) the nature of L$_2$ learners' knowledge (competence); (2) cognitive psychology and L$_2$ learners' knowledge; (3) L$_2$ learners' knowledge from an applied linguistics' view; (4) information-processing approaches with a special focus on 'Attention' research in cognitive psychology and SLA; (5) variation from a sociolinguistic perspective. Second, the present study reports the results of an experiment conducted on fifteen learners of English as an L$_2$, enrolled in the Intensive English programme at the University of Pittsburgh, USA. Results were obtained and conclusions were made.

Keywords: Unsystematicity; Noticing hypothesis; L$_2$ writing; Correction tasks.

1. Introduction: The Locus of Variation

As Wolfram (2005: 1) maintained, if structure is at the heart of language, then variation defines its soul. That is, variability is everywhere in language, from the unique details in each production of a sound or sign to the auditory or visual processing of the linguistic signal. As Sapir (1921: 147) put it, "Everyone knows that language is variable".   However, variability in language has often been disregarded or dismissed as tangential to the description of structural patterning and irrelevant to the study of linguistic competence: "it was not until the advent of sociolinguistics a half-century ago that the admission of language variation became more than a footnote to linguistic description. The study of language variation is now one of the most rapidly expanding subfields of linguistics with a well-established cohort of researchers, but its status is still somewhat marginal within theoretical linguistics" (Wolfram, 2005: 1).

Many research studies have shown that the linguistic behavior of the L_2 speaker is commonly believed to differ from that of the native speaker (Birdsong, 1992; Epstein et al,, 1998; Sorace, 2000). In this regard, Tsimpli (2006: 387) points out that the differences between the L_2 speaker and the native speaker are both qualitative and quantitative, especially in early stages of L_2 development, and involve several aspects of language. Moreover, empirical research on L_2 grammatical development has shown that even advanced L_2 speakers may differ from native speakers of a language in the degree of (in) consistent use of target forms, or in the (in) consistent application of grammatical constraints on the use of L_2 grammar (See Sorace, 2000; White &Genesse, 1996). As Tsimpli (2006: 387) maintained, this variation is also termed 'optionality' or 'variability' and refers to the performance data of the individual L_2 speaker.

In general, the difference between L_1 and L_2 learners is considered to be either a difference in the learning mechanisms employed in the developmental process, or an (in) ability of the learner's system to successfully analyze L_2 input, resulting in a non-target mental representations of the L_2 grammar (White, 2003; Hawkins, 2001). As Tsimpli (2006) points out, the majority of research on L_2 variation attempts to account for the L_2 data on these grounds.This notion of variability, Tsimpli continues to argue, seems to be distinct from the notion of individual variation or individual differences: 'these terms aims to describe variation among L_2 learners who have been grouped under the same level of L_2 performance, on some independent measure of evaluation' (p. 387).

The value of investigating the notion of individual variation or individual differences, as indicated above, lies in the fact that the degree of individual variation among L_2 learners has been used as a criterion for distinguishing first from second language development. Research shows that child L_1 learners follow a relatively uniform developmental pattern, whereas there is a lack of uniformity in the outcome of L_2 acquisition. The uniform, fast, and effortless process of L_1 development has been viewed within the innateness hypothesis for language acquisition. On the other hand, the lack of uniformity in the outcome of L_2 acquisition gives rise to alternative hypotheses and, accordingly, several possibilities have been offered, which will be examined in the present study.

Recent studies in L_2 acquisition have raised alternative or additional possibilities to account for variation in the performance of the L_2 speaker, which are based on two fundamental hypotheses on modern linguistic theory.   The first hypothesis concerns the competence / performance distinction in language, and the second hypothesis draws on the new 'minimalist' direction which generative linguistic research has adopted with Chomsky's (1995) minimalist program (Tsimpli, 2006: 388). For detailed discussions on these two hypotheses (See Juffs, 1998; Juffs& Harrington, 1995; Felser et al., 2003; Goad & White, 2004).

2. Theoretical Framework

One of the challenges for L_2 acquisition research is to explain not just success with L_2 but also failure. Relatedly, L_2 researchers have wondered about why most L_2 learners do not achieve the same degree of proficiency in a second language as they do in their native language; why only some learners appear to achieve native-like proficiency, and why variations occurs in the performance of the individual L_2 learner. In this connection, Ritchie and Bhatia (1996: 23) maintain that "we stress the fact that adult L_2 production at any given point in the acquisition process is highly variable, changing systematically in a number of ways under a

variety of conditions". 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 offered 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). According to Ellis (1990: 387),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 (1985:35) 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'. Tarone, then, is claiming that variability is an inherent feature of the representation of language knowledge among second language learners (Knutson, 2006; Larsen Freeman & Cameron, 2007; Lightbown&Spada, 2006; Mangubhai, 2006).

3. The Purpose

This study addresses the debate on the causes of variability in L_2 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_2.

4. Review of Literature

4.0. Introduction: SLA and Diverse Perspectives

Ritchie and Bhatia (1996) point out that the study of Second Language Acquisition (SLA) had its origins in attempts to solve practical problems. Until quite recently, research in this area was widely regarded as falling entirely within applied linguistics, and many still see the primary motivation for this research as that of contributing directly to the solution of the complex and socially important problems surrounding foreign and L_2 instruction. As Snow (1998) argues, five major groups of researchers have contributed to our understanding of L_2 acquisition: 1) foreign-language educators who are worried about their students' progress; 2) child-language researchers who noticed that L_2 acquisition might be similar in interesting ways to L_1 acquisition; 3) linguists who wanted to use L_2acquisition to test notions about language universals; 4) psycholinguists who were interested in language processing issues, and 5) sociolinguists and anthropologists who are interested in how language is used in various social settings. The problem, however, is that disciplines tend to become fragmented into 'schools', whose members are loath to accept, and are even hostile to the views of other schools using different methods and reaching different conclusions. Each group becomes convinced that it has a corner on 'truth'. One philosophical position contends that truth can never be known directly and in its totality. Multiple ways of seeing result in multiple truths (McLaughlin, 1987: 6).Specifically speaking, although

linguistics provides a useful perspective on L$_2$ learning and has led to stimulating ideas and research... "yet it must be remembered that linguistics is only one of the disciplines that SLA research can draw on... multiple sources of information are needed to build up a picture of the language knowledge in the mind" (Cook, 1993: 269-270).

4.1. Competence vs. Performance Debate

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$_2$ learners' knowledge or competence, which is considered a major reason for the variations in their performance.

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 (1980:39-43) distinguishes between 'cognitive competence' and 'social competence'. The former concerns, among other things, 'those basic skills which are a precondition for subsequent skills', while the second involves, 'certain interpersonal problem-solving skills'. Competence, according to Turner, is seen as relating to "an underlying organization of skills". In addition, when Burner (1973:111) 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'. He goes on to equate learning "competence" with learning to be skillful with a body of knowledge" (see Robinson & Ellis, 2011). According to Taylor (1988:148), 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'

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, 1970:184).This means that 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, 1977:40).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).

4.2. Competence in Cognitive Psychology

Greeno et al. (1984) have suggested a framework for characterizing competence in cognitive tasks. They 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 (1986:185) 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 (1986:9) 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 (1986:181), 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" (See 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.

4.3. L₂ Competence in 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 necessary mean coherent and complete linguistic knowledge and vice versa. Consequently, it would be a mistake to judge L₂ 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 L₂ 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, L₂ learners may not be able to use their linguistic competence even if those conditions are met.

Hosni Mostafa El-dali

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_2 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_2 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. 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).

4.4.Competence in Information-Processing Approaches

In the late 1970s and early 1980s, some scholars (Bialystok, 1978, 1982; McLaughlin, 1987) 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_2 by depending heavily on controlled processing of the L_2; through practice, the learner's use of that aspect of the L_2 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.   Blank et al. (1978) devised a test based on the language-perception continuum: the 'easiest' questions involved matching perception tasks (e.g. 'what things can you see on the table?') and the most 'difficult involved reasoning about perception (e.g. 'what happens to the cookies when we put them in the oven?'). Ellis (1982) devised a similar test for use with L_2 learners. He found that the cognitive complexity of specific tasks influenced the success with which the L_2 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_2 learners benefit in much the same way as L_2 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_1, so it is not surprising that L_1 interference is more evident. In a task which is cognitively complex (e.g. one with a wide language perception gap), 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".

4.4.1. Attentionresearch in cognitive psychology

Attention is one of those psychological topics that everyone has intuitions about, but few know exactly how to define precisely. It was long ignored in the behaviorist era as being too mentalistic and unobservable to be worthy of study in scientific psychology. In the 1950s and 1960s, however, there arose a

resurgence of interest in studying attention. The revival of interest in attention in the 1950s was motivated at least in part by the discovery of surprising limitations in the handling of simultaneous messages by air-traffic controllers and by subjects in dichotic listening tasks (Kahneman and Treisman, 1984).

Many of the contemporary ideas of attention are based on the premise that there are available to the human observer a myriad of cues that surround us at any given moment. Our neurological capacity is too limited to sense all of the millions of external stimuli, but, even were these stimuli detected, the brain would be unable to process all of them (Solso, 1991).   Generally, attention has been conceptualized in two ways. First, it has often been considered as a state of concentrating on something. In this tradition, William James (1970/1890) called attention the "focalization of consciousness". As a state, it has some similarities to other psychological states, such as emotions like anxiety or happiness, which are also not directly observable, but rather must be inferred from behavior. An alternative way to conceptualize attention is as processing capacity, which can be allocated in a variety of ways to different stimuli and activities. According to James (1970/1890: 403) "attention is the taking possession of the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thoughts.... It implies withdrawal from some things in order to deal effectively with others".The following discussion is concerned with some of the theories that have attempted to explain attention by using ideas from information processing theory. Of the most influential theories in the field, the majority fall into two broad categories: "bottleneck" theories and capacity model theories.

It is worth noting that both bottleneck and capacity theories are based on the idea that humans have limited information processing capacity. That is, we are never able to deal with of all the inputs that continuously flood into our processing systems from our senses and memory, and even if we were, we are limited in the number of motor responses we can make. One can describe bottleneck theories as a strong version of this limited capacity idea, in that only one message at a time can enter consciousness, since at some point processing is reduced to a single channel. Capacitymodels, on the other hand, are a weaker version; in that information can be processed via many channels but that, there is a fixed capacity limit to be distributed amongst the channels. The issue all of these theories had to resolve was the location of selection to the stimuli. More specifically, the models had to explain the process by which we are able to make sense of our environment, given that we are constantly bombarded with information.The initial model was termed the bottleneck theory of attention, since information could only be attended to from one source at any given time. Broadbent (1957) developed the filter model to explain the proposition that a bottleneck occurs before pattern recognition, and that attention determines what information reaches the pattern recognition stage. This model asserts that the selective filter allows information to come in from only one channel at a time, into working memory.

Triesman proposed a model which consists of two components, each relying on the other to function properly, named the attenuation model. In this model, the selective filter distinguishes between two messages on the basis of their physical characteristics, such as location, intensity and pitch. The 'dictionary' in Treisman's model allows for selection between messages on the basis of content. Certain information requires a very low threshold in activating awareness of a stimulus. The attenuation model therefore proposes that there is a decrease in the perceived loudness of an unattended message. This message will usually not be loud enough to reach its threshold unless it has a very low threshold to begin with, or there is a general momentary decrease for all messages.

Broadbent and Treisman's models proposed that the selection filter in attention occurs prior to selection, or pattern recognition stage. Later models by Deutsch and Deutsch (1963), and Norman (1968), attempted to merge growing information regarding memory and the selection process of attention. These more recent models claimed that "selection occurs after the pattern recognition stage. In these models attention is equivalent to the selection stage "(Beneli: 1997). Deutsch and Deutsch suggested that both channels of information are recognized but are quickly forgotten unless they hold personal pertinence to the individual. In shadowing experiments, the participant is asked to repeat a certain message that would create

the personal significance needed in attention. Norman elaborated on Deutsch and Deutsch's model by suggesting that selection is determined not only by the pertinence of the sensory input but also the strength of the input.

These theories have far more ideas in common than they do differences; yet, it is the differences which are the key aspects. First, Broadbent's filter is all-or-nothing (it does not allow through unattended messages), whereas Treisman's filter allows unattended messages through, but in an attenuated form. Second, Broadbent's is a simple single filter model, whereas Treisman's can be thought of as a two-stage filtering process: firstly, filtering on the basis of incoming channel characteristics, and secondly, filtering by the threshold settings of the dictionary units.

4.4.2. Functions of the attentional system

Our attentional system performs many functions other than merely turning out familiar stimuli and turning in novel ones. The three main functions of attention are l) selective attention in which we choose to attend to some stimuli and to ignore other, 2) search, in which we actively seek out particular stimuli, and 3) divided attention, in which we prudently allocate our available attentional resources to coordinate our performance of more than one task at a time.

4.4.2.1. Selective attention

The process of "selective attention" is one in which "the organism selectively attends to some stimuli, or aspects of stimuli, in preference to others" (Kahneman, 1973: 3). As Schneider et. al. (1984: 3) argue, this concept presupposes that there is some bottleneck, or capacity limitation, in the processing system and that subjects have the ability to give preference to certain stimuli so that they pass through this bottleneck easily and at the expense of other stimuli. In his discussion of 'selective attention', Sternberg (1996: 82) provides the following example: "suppose you are at a dinner party. It's just your luck to be seated next to someone who sells 110 brands of vacuum cleaners and describes to you in excruciating detail the relative merits of each brand. As you are talking to this blatherer, who happens to be on your right, you become aware of the conversation of the two diners sitting on your left. Their exchange is much more interesting, especially because it contains juicy information you had not known about one of your acquaintances. You find yourself trying to keep up the semblance of a conversation with the blabbermouth on your right while tuning in to the dialogue on your left. Cherry (1953) referred to this phenomenon as the cocktail party problem, based on his observation that cocktail parties are often settings in which selective attention is salient.

Selectivity is the result of capacity limits of the human information processing system. These limits are relative; they depended on the type of activity. Well-practiced tasks are automatic and require mental effort and engage attentive processes. In this connection, Haberlandt (1997) argues that theories differ in terms of the respective roles attributed to attentive and to automatic processes. According to so-called bottleneck theories of attention, the two types of processes are serial: automatic processes are followed by attentive processes. According to other theories, "attentive and automatic processes occur in parallel throughout processing" (Shiffrin, 1988: 66). In this regard, four varieties of selective attention are identified: 1) detection; 2) filtering; 3) search, and 4) resource allocation (Enns, 1990). First, detection involves noticing the absence or presence of a stimulus or the difference between a pair of stimuli. Detection depends on the observer's sensitivity as well as the observer's response bias to be lenient or strict (Haberlandt, 1997: 64). Detection involves the judgment as to whether a stimulus is present. Second, filtering involves the selection of one of several messages on the basis of its attributes. According to filter theories, analysis of information prior to the filter is automatic but superficial. Subsequent analyses are deeper but they require more cognitive resources and more time (Haberlandt, 1997: 64). Filtering involves concentration on one of reveal inputs while excluding others. Third, search refers to the identification of a target among a set of distracters. When targets and distracters differ consistently, the search is automatic. When targets and distractersare mixed, however, the view's full attention is required. To put it differently, search refers to "a scan of the environment for particular features actively looking for something when you are not sure where it will appear" (Sternberg 1996: 86). According to Duncan and Humphreys' (1989) similarity theory, the difficulty of search tasks depends on the

degree of similarity between the targets and the distracters, as well as on the degree of disparity among the distracters, but not on the number of features to be integrated.

Moreover, Cave and Wolfe (1990) have proposed another theory called "guided search". According to these researchers, the guided-search model suggests that all search involve two consecutive stages: 1) Parallel stage, in which the individual simultaneously activates a mental representation of all the potential targets, based on their possession of each of the features of the target, and 2) Serial stage, in which the individual sequentially evaluates each of the activated elements, according to the degree of activation, and then choose the true targets from the activated elements. According to their model, the activation process of the parallel initial stage helps to guide the evaluation and selection process of the serial second stage of the search.

4.4.2.2. SLA research on attention and noticing

Over the past two decades, researchers in the field of second language acquisition (SLA) have become increasingly interested in concepts traditionally associated with cognitive psychology. N. Ellis (2002: 299) points out, "We are now at a stage at which there are important connections between SLA theory and the neuroscience of learning and memory". The concept of attention has become especially important because of its crucial role in so many aspects of SLA theory such as input, processing, development, variation, and instruction.In this regard, R. Ellis (1994: 10) points out that "Schmidt is one of the few linguists who have adopted the conceptual and experimental rigours of experimental psychology in answering questions concerning the role of consciousness in L$_2$ acquisition". Much of Schmidt's work (1990; 1992; 1993 a, b; 1994 a, b; 1995 a, b; 2001) ties findings from cognitive psychology into SLA theory. Reviewing the psychological literature on consciousness has led Schmidt to propose the *Noticing Hypothesis*, which states that "noticing is the necessary and sufficient condition for converting input into intake" (1990: 129). Since then, a considerable amount of research has addressed the issue of noticing in SLA.

The noticing hypothesis seems to have been motivated by a seminal study by Schmidt and Frota (1986), which documents the role of noticing for a beginner learning Portuguese in Portugal over a period of 22 weeks. Their findings question the assumption that language acquisition is a purely subconscious process (Krashen, 1982), since the learner clearly noticed some of the grammatical structures he seemed to have acquired. Schmidt and Frota, however, admitted that they were unable to trace much of what had been acquired to what had been noticed. Self reports are inherently subjective. Moreover, memory effects may play a role depending on the amount of time that passes before the diary entry is made. Nevertheless, first person accounts seem to be the most valid method for assessing what is noticed.Posner and Petersen (1990) describe attention in terms of three networks: alertness, orientation, and detection. Alertness refers to a general state of readiness to receive input. The higher the level of alertness, the faster the speed of selecting information for processing will be. Orienting attention to a stimulus facilitates the processing of that stimulus. Orientation differs from alertness in that a learner might for example be ready to learn (alertness) but not know whether to focus on form or meaning (orientation). Detection particular features actively looking for something when you are not sure where it will appear (Sternberg, 1996: 86). According to Duncan and Humphreys' (1989) similarly theory, the difficulty of search tasks depends on the degree of disparity among the distracters, but not on the number of features to be integrated.

4.4.2.3. Divided attention

Early work in this area was done by Neisser and Becklen (1975). It was noticed that the attentional system must coordinate a search for the simultaneous presence of two or more features. In this regard, Neisser and Becklen hypothesized that improvement in performance would have occurred eventually as a result of practice. They also hypothesized that the performance of multiple tasks was based on skill (due to practice), not on special cognitive mechanisms. Spelke, Hirst, and Neisser (1976) used a dual-task paradigm to study divided attention during the simultaneous performance of two activities. They found that the speed and accuracy of simultaneous performance of two controlled processes was quite poor. The two tasks that were examined were 1) reading for detailed comprehension, and 2) writing down dictated words. Spelke and her colleagues found out that, given enough practice, the subjects' performance improved on both tasks. That is,

they showed improvements in their speed of reading and accuracy of reading comprehension. Subjects' performance on both tasks reached the same levels that the subjects had previously shown for each task alone. They suggested that these findings showed that controlled tasks can be automatized so that they consume fewer attentional resources. Pashler (1994) argued that when people try to perform two overlapping speeded tasks, the responses for one or both tasks are almost always slower. When a second task begins soon after the first task has started, speed of performance usually suffers. The slowing due to simultaneous engagement in speeded tasks is termed the psychological refractory period (PRP) effect.In divided attention tasks, the subjects are asked to spread attention over as many stimuli, or potential stimuli, or sources of stimuli, as possible. In focused attention tasks, the subject attempts to place all available attention on just one stimulus, type of stimuli, or source of stimuli, ignoring and/or excluding all other inputs. In this regard, Shiffrin (1988: 34) points out that, "As a general rule, subject finds it extremely difficult to divide attention. When there are more tasks to be carried out, more stimuli to be attended, more potential stimuli to be monitored, or more attributes to be attended, performance is reduced".

In conclusion, studies of attention fall into two broad classes, which are concerned respectively with divided and with focused or selective attention. Divided attention tasks used to establish limits to performance and to measure the extent to which different tasks can be combined without loss. They are also used to analyze the causes of dual-tasks decrements and to locate the stages of processing that limit performance. Tasks of selective or focused attention are used to study resistance to distraction, and to establish the locus beyond which relevant and irrelevant stimuli are treated differently. As Dodd and white (1980: 14) argue "Attention... involves a selection of information [which] is often related to central processor control, depending on specific goals and plans, certain information will be selected and other information rejected". According to Leahey and Harris (1994: 109), how we select activities to attend to and how we determine how many stimuli we can process simultaneously depends on a variety of factors: 1) the number of sources is important; that is, it is harder to pay attention to five people talking than it is to one; 2) the similarity of sources is important; that is, "some people find that they can study well with instrumental music in the background, but not with vocal music. The latter, being linguistic, is similar enough to reading to interfere, while purely instrumental music in not", and 3) the complexity of sources or tasks is another important variable; that is, it is much easier to pay attention to several simple stimuli or simultaneously perform more than one simple task than it is if the stimuli or tasks are complex. Haberlandt (1997: 64) points out that, "Attention plays a role in perception and performance, even though we may be unaware of it. We become aware of its role, however, when a stimulus is difficult to perceive, when we execute two tasks simultaneously, and when we face an overload of information". Sternberg (1996: 743) provides the following example: "driving a car is initially a controlled process. Once we master driving, however, it becomes automatic under normal driving conditions (on familiar roads, in fair weather, with little or no traffic). Similarly, when first learn to speak a foreign language, you need to translate word-for-word from your native tongue; eventually, however, you begin to think in the second language. This thinking enables you to bypass the intermediate-translation stage and allows the process of speaking to become automatic".

One of the most influential attentional studies in SLA was conducted by VanPatten (1990), who investigated the notion of attention as a limited resource. More specifically, the study examined whether learners were able to consciously attend to both form and meaning when processing input. Results showed that the 'content only and lexical groups' significantly outperformed 'the form and morphology groups'. This led VanPatten to conclude that it was difficult, especially for beginners, to notice content and form at the same time. Moreover, he postulated that learners would notice meaning before form, since their primary objective is to understand the prepositional content of utterances. VanPatten's findings have led SLA researchers to try and find ways to help learners focus on both form and meaning. One such way is input enhancement, which refers to the manipulation of certain aspects of the input (e.g., form) to make them more salient and thereby more noticeable to learners (Sharwood Smith, 1993).

Tomlin and Villa (1994) suggest that there are four conceptions of attention in SLA. One is that of attention as a limited capacity system. The idea being that the brain may be presented (through the sensory system) with an overwhelming number of stimuli at any given time, and it seems impossible to process them all. The limitations of attention refer not only to the amount (or duration) of attention that may be given to a single stimulus but also to the number of stimuli that may be attended to simultaneously. This leads to a second conception of attention, namely that it constitutes a process of selection. The overwhelming amounts of incoming stimuli force the attentional system to be selective. The third conception of attention, involves controlled rather than automatic processing of information. The underlying assumption here is that some tasks require more processing effort, and hence a higher degree of attention, than others. A person may therefore perform two tasks at the same time, especially if one requires automatic processing (low attention). By the same token, it is more difficult to perform two tasks if both require controlled processing (high attention). The fact that controlled processing of two simultaneous tasks is sometimes possible led researchers to develop a fourth conception of attention, which is that it must involve a process of coordination among competing stimuli and responses. In this process, attention must be established, maintained, discontinued, and redirected in order to perform different actions.According to Schmidt (1994: 179) noticing refers to the "registration [detection] of the occurrence of a stimulus event in conscious awareness and subsequent storage in long term memory...". Schmidt is careful to distinguish 'noticing' from 'understanding', which he defines as "recognition of a general principle, rule or pattern" (1995: 29). Understanding represents a deeper level of awareness than noticing which is limited to "elements of the surface structure of utterances in the input" rather than underlying rules (Schmidt, 2001: 5).

Stronger evidence for the facilitative role of noticing comes from a study by Jourdenais, et al. (1995). Results showed that the Enhanced group used the target structure more often than the Unenhanced group on both the think-aloud protocols and the written production task, suggesting that input enhancement made the target forms more noticeable. Moreover, subsequent production by the Enhanced group was more target-like than the Unenhanced group, suggesting that noticing facilitated acquisition. A more innovative experimental design by Leow (1997, 2000, 2001) provides further evidence for the facilitative role of awareness in SLA. Leow (1997) used a crossword puzzle task as input that was designed to initially induce learner error. Eventual clues in the puzzle provided learners with the correct form, thereby increasing their chances of noticing the mismatch. Similar results were found in a subsequent study (Leow 2000). Results showed that participants who displayed evidence of awareness performed better on the post-exposure tasks than those classified as unaware. In a similar experimental design, Rosa and O'Neill (1999) investigated the role of awareness in acquiring syntactic structures. Among other things, the study found that awareness seemed to increase learners' ability to recognize the syntactic structures on the post-test. There was also a strong correlation between awareness and intake (Perry & Lewis, 2009; Larsen Freeman & Cameron, 2007).

Leow's explanation seems to support VanPatten's (1990) findings that attention to both form and meaning is difficult. However, the modality of the input in this case (written) differed front that in VanPatten's study (aural). The question, then, would be "could modality differentially affect attention to meaning and form?". Wong (2004) tried to address this question with a partial replication of VanPatten (1990). His variations included the addition of a written mode of input and using English (instead of Spanish). Findings for the aural input mirrored those of VanPatten, since there was a significant decrease in performance when participants had to attend to both content and form. However, no significant difference was found when the input was written (which incidentally took less time to read than the aural input). Moreover, when processing both form and meaning, the listening task proved more difficult than the written task, suggesting once again that different modalities may impose different attentional demands (Eskildsen, 2008).To conclude, the noticing hypothesis has served to generate important theoretical and empirical debates in SLA. It has also provided an opportunity to integrate useful concepts from cognitive psychology into SLA theory.

Hosni Mostafa El-dali

4.5. 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 19th century European Neo-grammarians: that sound change was without exception. In this regard, two approaches, in particular, have had considerable influence on L$_2$ acquisition and are reviewed next. 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 byspeakers 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).

5. Empirical Study

5.1. Experimental Methodology

5.1.1. Subjects

Fifteen subjects participated in this study. They were from a variety of language backgrounds. There were nine females and 6 males. Two subjects were under twenty years of age. Seven subjects were between twenty and twenty-five years old. Six subjects were over twenty-five years of age. Three subjects had studied English in their home countries for more than eight years. One subject had studied English in her home country for exactly eight years, three for seven years, six for six years, one for four years, and one for five years.

Only four subjects indicated that their previous English classes gave the most attention to writing. Emphasis on grammar was mentioned as the core of most subjects' previous English classes. None of the subjects had ever been in an English-speaking environment before coming to the USA. Twelve had been in the USA for less than one year. Three had been in the USA for more than a year, one of them for more than sixteen years.

Table (1) shows the distribution of the subjects of this study according to their native countries.

Table (1): Distribution of the subjects according to their countries.

Country	Number of subjects
Japan	5
Taiwan	4
Malaysia	1
Turkey	1
Indonesia	1
Brazil	1
Saudi Arabia	1
Korea	1

5.1.2. Instruments

The instruments of this study consisted of four tasks:

5.1.2.1. Questionnaire

A questionnaire was constructed to elicit information from each subject about his/her name, country, sex, age, linguistic background, and the extent of his/her exposure to the English language. Each subject was also asked to pinpoint the most difficult areas of grammar that always troubled him/her when he/she wrote in English (see Appendix 1).

5.1.2.2. Free composition

The subjects were asked to write an essay of about two hundred words. The topic was "The Value of Learning English." It was chosen because it was related to students' interest and not technical. In order to keep the classroom's atmosphere as natural as possible, students' regular teachers assigned' this task as if it were a regular class assignment. Written instructions were given to the students before they wrote. To guarantee that every student knew what he/she should do, teachers read the instructions and asked students to feel free to ask questions if they did not understand. Specifically, students' attention was drawn to the necessity .of concentrating on both form and meaning. The time allowed was forty minutes (see Appendix 2).

5.1.2.3. Focused/unfocused correction tasks

The basis of these two tasks was the morphosyntactic errors that appeared in each student's essay. In an unfocused correction task, all sentences with morphosyntactic errors were provided. Each sentence contained one or more errors from the individual's essay. Each student was told that there were grammatical errors in the sentence and was asked to correct them. Written instructions were given to each student. The time allowed for this task was fifteen minutes (see Appendix 3).

Having done this task, students were given written instructions on how to work on the "focused correction task" (see Appendix 4). In the focused correction task the same sentences from the student's essay were presented. This time, the students' attention was drawn to the specific errors (i.e., the errors were underlined). Before students started to work on this task, their regular teacher explained the written instructions clearly and slowly. Students were asked to correct the errors that appeared in each sentence (see Appendix 4).

5.1.2.4. Interviews

Each student was interviewed to explain his/her performance in the essay, the unfocused correction task and the focused correction task. I interviewed the students individually. The meetings were held in the students' lounge in the Department of Linguistics. Conducting the interview, with each subject took about twenty to, thirty minutes. Every subject had the opportunity to choose the time of the interview. However, I had to reschedule three of the meetings because there subjects failed to keep their appointments. Subjects (13) preferred to meet in Hillman library.During the interview, students were asked to explain why changes were made and were probed to clarify as often as necessary. No feedback on the correctness of the changes was given before the end of the interview. Students' explanations were tape-recorded, and transcribed (see Appendix 5).

5.1.2.5. Data Analysis

The data analysis had a quantitative and a qualitative, interpretative part. The quantitative part consisted of a statistical comparison of the number of errors in the composition, unfocused correction and focused correction tasks (by means of one-way ANOVA). First, the number of students' errors in the essay, unfocused correction and focused correction tasks was calculated. Students' errors in the unfocused correction task were counted as either remaining ones that were previously made in the essay (and never corrected), or new errors. Similarly, students' errors in the focused correction task were categorized as either remaining, or new errors. Second, the frequency distributions and descriptive statistics for students' errors in the essay, unfocused correction and focused correction tasks, were made.The qualitative part was an analysis of each student's conception of the grammatical rules that were violated in order to explain any discrepancies between their performances in the tasks. This analysis was inductive, based entirely on the individual's explanations, and aimed at accounting for the differences between the tasks.

6. RESULTS

Tables (1, 2, 3, 4, 5) present the number of students' errors in the essay, unfocused correction and focused correction tasks. (See Appendix). The statistical analysis indicates that the condition (essay, unfocused correction, focused correction) affected the number of errors made by students. Students made the most errors in the essay, the fewest errors in the focused correction task. The mean number of errors in the essay is 14.2 with a standard deviation of 6.5. The mean number of errors in the unfocused correction task is 7.6 with a standard deviation of 2.9, while the mean number of errors in the focused correction task is 4.2 with a standard deviation of 3.1 (See Figure 1).

The results of this study demonstrate that students' errors in the essay were not just due to carelessness or forgetfulness as some of the subjects claimed during the interview. An examination of the performance of the subjects suggests that deficiency in their knowledge of grammar results in inaccurate composition writing and unsuccessful correction of errors. When asked to correct their errors, L_2 learners with deficiency in conscious knowledge of grammar seem to rely on their "feelings" about the structures of the target language. However, since these "feelings" are based on incorrect knowledge, L_2 learners tend to follow false assumptions and, in turn, their corrections of errors are unsuccessful. In addition, they appear to search for various ways to express the meanings of their erroneous sentences in new forms, but many of these contain new errors. Thus, it can be concluded that relying on "feelings and experience" (to use Subject (4)'s words), without having adequate conceptual knowledge of grammar rules leads to unsuccessful performance, even if students' attention is drawn to their errors. This conclusion is based on four pieces of evidence. First, many errors do not get corrected in the unfocused correction task. An examination of the performance of the subjects shows that none of the subjects was able to correct all his/her errors in the unfocused correction task.

Secondly, even when the error is identified (as in the focused correction task), students often fail to correct it. Subject (6) made twelve errors in the unfocused correction task, eleven of which were previously made in the essay and never corrected, and only one of which was new. Although his attention was drawn to his errors, he was unable to correct them successfully. All he did was either leave the incorrect structures as they were or use new structures which were also incorrect. He made twelve morphosyntactic errors in the same structures he had used incorrectly in the unfocused correction task. This clearly suggests that he lacks the necessary knowledge of grammar and, consequently, drawing his attention to his errors did not improve his performance. Likewise, Subject (1) was unable to see or correct the errors although they were underlined for her. That is, although her attention was drawn towards a specific grammar error, she could not correct it; instead, she tended to express the meaning of the sentence in a different form which sometimes happened to be correct. Moreover, because she appeared to be lacking accurate grammar knowledge, the new versions of her erroneous sentences contain yet more grammar errors.

Third, many new errors are introduced, even when the subjects are paying attention. Subject (1) for example, made three new errors in the unfocused correction task, and two new errors in the focused correction task. Subject (2) made five new errors in the unfocused correction task, and three new errors in the

focused correction task. Subject (7) made six errors in the unfocused correction task; five of them were new. Five of the nine errors made by Subject (9) were new, and four of the five errors made by Subject (10) were also new in the unfocused correction task. Subject (13) made six errors in the unfocused correction task, four of which were new.

Finally, even when the subjects' errors are eliminated, it is often because students tend to write new sentences instead of correcting them. For example, Subject (1) tended to focus more on the semantic aspect of her sentences than on their grammatical accuracy. In other words, she did not use grammar knowledge to correct her erroneous sentences. Instead, she tended to use what one could call "stylistic variations" of those sentences, which happened to be correct. Likewise, Subject (2) managed to reduce the number of his errors from twenty-seven errors in the essay to thirteen in the unfocused correction task because his new sentences were correct. Subject (11) also managed to reduce the number of his errors from fifteen errors in the essay to eight in the unfocused correction task. She managed to correct some of her errors in the essay by coming up with new sentences that happened to be correct. An examination of Subject (12)'s performance also shows that the decrease in the number of errors in the unfocused and the focused correction tasks is due to the fact that she tended to change the whole sentence in such a way that avoided the structures she previously used in the essay. She made eleven errors in the essay, four in the unfocused correction task, and three in the focused correction task. Subject (8) clearly stated that she was relying on making new sentences rather than correcting the already written erroneous sentences:

> S.281. See..the sentence is not good...the meaning...I have to change it, all of it...it is not clear...so I changed the words. I didn't make attention for grammar...I want this sentence to mean anything.

To sum up, this study shows that the students' unsuccessful performance in the essays was due to their fragmentary knowledge of grammar. No matter how attentive L_2 learners are in performing language tasks, their performance in error correction tasks will be unsuccessful as long as their knowledge of grammar is fragmentary.

Analyzing the subjects' performance in essay writing and two correction tasks support the general hypothesis of the present study: the subjects' performance in the tasks displayed various degrees of competence in English. That is, the overall competence of L_2 learners is not systematic or unitary all the way. This implies that a good student in solving grammar problems is not necessarily good at writing. Also, successful performance, either in writing or grammar tasks does not necessarily guarantee successful and accurate verbal explanations on students' part. Moreover, the results of the present study support the hypotheses that students' performance in the correction tasks would be better than that in the writing task. And, their performance in the focused correction task would be better than that in the unfocused correction task. Relatedly, students' poor performance in writing, at least at the sentential level, is mainly due to a deficiency in their knowledge of grammar.

Accordingly, interpreting the subjects' behavior in the writing and the error correction tasks seems to support the non-interface position introduced earlier in the review of literature. Consequently, it would be a mistake to judge L_2 learners' knowledge on the basis of their performance, since both knowledge (competence) and performance are unrelated. One can argue, then, that successful performance does not necessarily mean coherent and complete linguistic knowledge, and vice versa. Relatedly, although linguistic knowledge appears, in some situations, to be a factor in determining the type of performance, it can not be concluded that it is a prerequisite to successful performance. Regarding error correction, the non-interface position predicts that linguistic knowledge can help L_2 learners to make changes in their linguistic output. The results of the present study, partially, support such a prediction. However, in some cases, L_2 learners may not be able to use their linguistic knowledge in making successful changes.

In addition to the above analysis, another interpretation can be provided, which is based on cognitive psychology's perspective. That is, in addition to the deficiency in grammar knowledge as a reason for students' inaccurate composition writing, there is another possible reason that makes these students commit many

morphosyntactic errors in writing such as the many constraints that writing in a foreign language imposes on foreign language learners and deficiency in students' abilities to transfer their knowledge of grammar to complex tasks such as writing. It can be argued that composing in English as a second language is a multidimensional activity which requires L_2 learners to do more than one thing simultaneously. This argument is compatible with the principles of the attention theory. 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. 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.

This study, then, supports the claim that second language learner has difficulty in attending to both form and content in the input. In other words, the attentional resources are limited and therefore it is difficult to understand the content of input when the attention is allocated to a certain form in the input. This can serve as evidence supporting such theoretical and pedagogical proposals as consciousness-raising (Rutherford &Sharwood-Smith, 1985) input enhancement (Sharwood-Smith, 1993; Alanen, 1995), and focus on form (Doughty & Williams, 1998). They all start with the common assumptions that (1) a focus on meaning is necessary with a sufficient amount of input; (2) a certain level of conscious attention to form is also necessary; (3) it is difficult, however, to pay attention to form while processing input for meaning; and (4) therefore some sort of encouragement to attend to form is helpful and facilitative for SLA. The present study, then, provides some evidence for Assumption 3; simultaneous attention to form and meaning is difficult. Furthermore, these studies favor focus on form. VanPatten (1990: 295) suggests that "if attention to form needs to be conscious at some point, then the input must be easily comprehended". Therefore the learner is able to allocate most of the attentional resources to the form on the spot, which will facilitate the processing and acquisition of that form (Stubbs, 2007; De Bot et al., 2007).

This study shows that although 'noticing' or 'conscious awareness' may have some positive effect on L_2 learners' performance; this effect, however, is constrained by two important factors: (1) learners' overall linguistic competence, and (2) the nature of the task; that is, whether it requires controlled or automatic processing of information. These two factors determine the amount of attention and degree of coordination on the part of L_2learners. In this sense, this study does not exclusively support Schmidt's Noticing Hypothesis. Rather, it supports the claim that Noticing is necessary but not sufficient condition for convening input into intake. As a whole, this study supports the claim that L_2 learners have difficulty in attending to both form and content in the input. This is why conscious awareness or 'Noticing' is not sufficient condition for converting input into intake.

The subjects' performance in essay writing can be analyzed in the light of what "Divided attention" phenomenon maintains. To remind the reader, research on this phenomenon shows that, at certain times, the attentional system must coordinate a search for the simultaneous presence of two or more features. To put it simply, the attentional system must perform two or more discrete tasks at the same time. In such a case, "the speed and accuracy of simultaneous performance of two activities was quite poor" (Spleke, Hirst, and Neisser, 1976). Relatedly, it was, also hypothesized that the performance of multiple tasks was based on skill (due to practice), not on special cognitive mechanisms (Neisser&Becklen, 1975).

In "divided attention" tasks, the subjects are asked to spread attention over as many stimuli, as possible. In this regard, Shiffrin (1988:34) points out that, "as a general rule, subjects find it extremely difficult to divide attention. When there are more tasks to be carried out, more stimuli to be attended….. Performance is reduced". Many studies show that subjects' exhibit reduced performance when they try to accomplish simultaneously an increased number of tasks or to attend simultaneously to an increased number of stimuli. These are studies of divided attention deficits. Also, much research in attention assumes that there is a limited pool of attentional resources or capacity that can be distributed across tasks. For example, according to simple capacity models, if the subject has 100 units of capacity and is required to perform two tasks each requiring 75

units, performance should decline when shifting from performing the tasks individually to performing them simultaneously.

Subjects' performance in the two correction tasks reflects what "Selective Attention" phenomenon maintains. In these tasks, subjects relatively attend to a certain "stimuli" or aspects of stimuli, in preference to others. As Kahneman (1973) and Schneider et al. (1984) point out, this concept presupposes that there is some capacity limitation, or some bottleneck in the processing system; however, subjects have the ability to pass through this bottleneck and at the expense of other stimuli, by giving performance to certain stimuli. In the present study, subjects gave preference to "form" only at the expense of 'meaning'; and their major focus was on correcting the errors they previously made in essay writing. What is worth mentioning, here, is that some students were able to correct only some of their errors, but not all errors. And, the number of the corrected errors differed from one subject to another. In this regard, it can be argued that selectivity is the result of capacity limits of the subjects' information-processing system; and these limits are relative, and they depended on the type of activity itself. Students' performance in the correction tasks was better than that in the essay writing. And, more specifically, their performance in the "focused" correction task was better than their performance in the "unfocused" correction task. This observation can be explained in the light of the four varieties of "selective attention": (1) detection; (2) filtering; (3) search, and (4) resource attention.

First, as a result of 'selective attention', the subjects' ability to detect the errors increased.   That is, their ability to notice what is missing or incorrect in the sentence they previously wrote in the essay' has been improved. It must be emphasized, however, that this ability depends on the observer's sensitivity and his ability to respond. Second, the subjects' ability of 'filtering' has been improved; that is, they were able to select, analyze deeply, and concentrate on a particular item and exclude others. Third, as a result of noticing deep analysis, and concentration, the subjects' search mechanisms have become automatic. In this regard, Cave and Wolfe's (1990) theory of "guided search" seems to be quite pertinent. To remind the reader, the guided-search model suggests that search involves two consecutive stages: (1) Parallel stage, in which the individual simultaneously activates a mental representation of all the potential targets, and (2) Serial stage, in which the individual sequentially evaluates each of the activated elements, according to the degree of activation, and then chooses the true targets from the activated elements. In focused attention tasks, the subjects attempt to place all available attention on just one stimulus, ignoring and / or excluding all other inputs (Lanfer&Girsai, 2008).

7. Discussion

From a linguistic point of view, the results of this study demonstrate that deficiency in students' knowledge of grammar results in inaccurate composition writing and unsuccessful correction of errors. When asked to correct their errors, L_2 learners with deficiency in conscious knowledge of grammar seem to rely on their 'feelings' about the structures of the target language. However, since these 'feelings' seem to be based on incorrect knowledge, L_2 learners tend to follow false assumptions and, in turn, their corrections of errors are unsuccessful. This conclusion is based on four pieces of evidence. First, many errors do not get corrected in the unfocused correction task. An examination of the performance of the subjects shows that none of the subjects was able to correct his/her errors in the unfocused correction task. Second, even when the error is identified (as in the focused correction task), students often fail to correct it. Third, many new errors are introduced, even when the subjects are paying attention. Finally, even when the subjects' errors are eliminated, it is often because students tend to write new sentences instead of correcting them.

This study, also, presents strong support for the claim that it is difficult, especially for beginners, to notice content and form at the same time. Also, this study provides further evidence for the facilitative role of increased attention in improving L_2 learners' performance. This implies that our students' failure to perform on language tasks may be due, sometimes, to cognitive deficiency; rather than linguistic one. And, in broad terms, language acquisition may not be fully understood without addressing the interaction between language and cognition. Therefore, further research is needed in this area, at least, to know how our students think and how to teach them to think strategically.

The results of this study show that the existence of knowledge is not sufficient to distinguish skilled or fluent performance from less skilled. Through practice and experience the learner must gain easy access to knowledge. Cognitive psychologists describe this difference in access as "automatic" or "not automatic" or "controlled". In other words, foreign language learners may appear to have the necessary knowledge to make correct responses; however, they are unable to display this knowledge in multi-dimensional tasks. In such tasks, learners are required to do more than one thing simultaneously. This argument is compatible with the principles of the attention theory.

Moreover, L_2 learners may appear to have the necessary knowledge to make correct responses; however, they are unable to transfer this knowledge while writing; listening to spoken English; reading written texts, and solving certain types of grammatical problems. So, knowledge of the correct principles do 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. Accordingly, in thinking about foreign language learners' performance as an object of study, the essence of the underlying knowledge that accounts for their performance must be examined. This examination of the learners underlying knowledge will in turn uncover the basis for the strategies they use in solving language problems. In this regard, Johnson (1988) maintains that when learning a language is viewed as learning skills, the process appears to be usefully broken into two or three phases. The first is the development of declarative knowledge; however, declarative linguistic knowledge cannot be employed immediately but only through procedures activating relevant parts of declarative knowledge. In the second or associative phase, the skill is performed. In the third phase, the skill is continually practiced, and becomes automatic and faster. Accordingly, one can argue that deficiency in the subject's declarative knowledge may result in (1) failure to detect the erroneous item that must be corrected for the sentence to be correct; (2) failure to decide whether the sentence is correct or incorrect; and, in most cases, the sentence seems grammatically correct although it violates a certain invisible grammatical rule. In addition, because there was no link between declarative and procedural knowledge, many subjects (males and females) failed to correct the item they identified as erroneous, or provide accurate rationalizations for their performance. Therefore, examining the relationships between declarative and procedural knowledge is a worthwhile pursuit since students often fail to recognize or construct these relationships, and, sometimes are able to reach correct answers for problems they do not really understand. Therefore, it seems that the best way for effective classroom instruction and for improving our students' performance is to link conceptual with procedural. Such a link has many advantages for acquiring and using procedural knowledge. These advantages are: (A) Enhancing problem representations and simplifying procedural demands. (B) Monitoring procedure selection and execution. (C) Promoting transfer and reducing the number of procedures required. Moreover, linking conceptual knowledge and procedural knowledge has benefits for conceptual knowledge. Problems for which no routine procedures are available are solved initially by facts and concepts in an effortful and laborious way. As similar problems are solved repeatedly, conceptual knowledge is gradually transformed into set routines (condition-action pairs) for solving the problem. The condition-action pairs constitute the basic elements of the procedural system (Anderson, 1983; Hiebert&Lefevre, 1986). Thus knowledge that is initially conceptual can he converted to knowledge that is procedural. In addition, procedures can facilitate the application of conceptual knowledge because highly routinized procedures can reduce the mental effort required in solving a problem and by making possible the solution of complex tasks.

8. Pedagogical Implications

Becoming a foreign language teacher means becoming a member of a professional community. In turn, becoming a member of a community means acquiring the common knowledge and shared values of that community. Beginning teachers should aim to acquire the following (1) A knowledge of the spoken and written language; (2) A knowledge of how language in general is put together, and (3) A knowledge of pedagogy. These three types of knowledge translate into different professional abilities. For example, the first knowledge area means that the teacher can speak and write the foreign language with a high level of

proficiency. The second knowledge area implies that the teacher can explain the workings of grammar and vocabulary to native learners in a way that is both logical and informative. The third knowledge area – pedagogy – is crucial for putting things into practice.

Classroom teachers should concentrate on both domain-specific and met cognitive knowledge. Instruction should be designed to facilitate students' construction of knowledge bases that are structured in terms of higher-order principles. These knowledge structures should include not only declarative knowledge of principles, but also procedural knowledge of them; that is, knowledge of how to use the principles to solve problems. The structures should include knowledge of the conditions of the applicability of the principles, a specification of the kinds of problems to which they should be applied. In addition, instruction should be designed to explicitly assist students in acquiring meta cognitive knowledge of how to plan their problem-solving efforts, how to set goals and sub goals or these efforts, and how to monitor their progress towards their goals. Inn Schoenfeld's (1985) terms, instruction needs to foster the acquisition of the "basics" of a domain, domain-relevant problem-solving strategies or heuristics, and met domain understanding or "sense-making".

Reciprocal teaching can be a very promising approach to help students become efficient problem-solvers (Palincsar& Brown, 1984). The instruction provided during the reciprocal teaching sessions involves extensive modeling and practice in four strategies that are deemed to be ideal comprehension-fostering and comprehension-monitoring activities. First, it involves extensive modeling of the type of comprehension-fostering and comprehension-monitoring activities. Second, the reciprocal teaching routines encourages students to respond, even if the level of which they are capable is not yet that of an expert. But because the students do respond, the teacher has an opportunity to gauge their competence and provide appropriate feedback. In this way, the procedure provides an opportunity for the students to make overt their level of competence, a level that in many procedures is masked by students' tendency not to respond until they approach full competence.

Thus, the reciprocal teaching procedure involves continuous trial and error on the part of the student, joined with continuous adjustment of the part of the teacher to their current competence. Through interaction with the supportive teacher and their more knowledgeable peers, the students are to perform at an increasingly more mature level; sometimes this progress may be fast, sometimes slow, but irrespective of the rate, the teacher provides an opportunity for the students to respond at a slightly challenging yet manageable level. The teacher does not merely instruct the students and then leaves them to work unaided; he/she enters into an interaction where the students and the teacher are mutually responsible for getting the task done. As the students adopt more of the essential skills initially undertaken by the adult, the adult acts less as a model and more like a sympathetic coach. In order to perform this essential role, however, the teacher must somehow be sensitive to each student's need at any stage of the process. He/ she must engage in on-line diagnosis that will guide his/her own level of participation, a level of participation that is finely tuned to the student's changing cognitive and met cognitive status. Diagnosis involves more than initial estimates of starting competence; it also involves continuous evaluation and revision in the teacher's theory of the student's competence, a theory that must be responsive to the level of participation of which the student is currently capable.

Reciprocal teaching is intended to mimic the conditions of natural learning; every attempt is made to base the reciprocal teaching interaction on the forms of guided learning that are said to occur naturally between experts and novices, both in the ideal home and school settings and in the workplace. The teacher models and explains, relinquishing part of the task to the novices only at the level each one is capable of negotiating at any point in time. Increasingly, as a novice becomes more competent, the teacher increases her demands, requiring participation at a slightly more challenging level. In this regard, Vygotsky (1978) argued that all higher psychological functions (e.g., perception, voluntary attention, intentional memory) have social origins. Specifically, he claimed that adults and peers that are more capable mediate the child's experiences. They organize the environment, interpret and give meaning to events, and direct attention

to relevant dimensions of experience. They also provide ways to cope with information, showing children, for example, how to categorize, memorize, retrieve, integrate, and talk about their experiences. In these ways, adults not only tell children about their world, they also show them ways to think about that information. Thus, knowledge and cognitive processes are socially transmitted.

One implication of a theory such as Vygotsky's is that L_2 learners' eventual cognitive status can be determined by the power and breadth of the knowledge and strategies to which he or she has been exposed. In fact, an important aspect of Vygotskian theory is that L_2 learners can often complete tasks, when working with other people, that they could not accomplish working independently. Vygotsky suggested that those abilities children demonstrate when given assistance are in the process of becoming internalized. These abilities are not yet mature; they are maturing. The distance between what the learner can do working alone ·and what he or she can accomplish with aid was labeled "the zone of proximal development:.

It seems that the "Good Strategy User Model" is promising in this regard. Pressley and his associates have developed this model. Elements of good thinking include an array of strategies for accomplishing goals; knowledge about when and how these techniques should be used (met cognition); and an extensive on-strategic knowledge base that should be used (met cognition); and an extensive non-strategic knowledge base that issued in conjunction with the strategic and met cognitive processes.

In addition to strategies, met cognition, and an extensive knowledge base, the good strategy user model also emphasizes motivational beliefs and cognitive styles. That is, beliefs about competency for particular tasks in specific domains, or about ability in general are assumed to affect the thinker's motivation to perform strategically and to acquire new procedures. In this regard, McCombs (1986) maintains that these motivational beliefs are tied to self-esteem in that those who see themselves as able to control their own cognition will be more likely to allocate effort and attention to strategic processing.

In summary, good strategyuse involves the coordination of strategies, met cognition, styles, motivational beliefs, and the knowledge base. A competent thinker analyzes task situations to determine the strategies that would be appropriate. Then, a plan is formed for executing the strategies, and progress during strategy execution is monitored. According to Pressley (1986) and Presley al. (1989), strategy instruction should directly teach all the components of good strategy use. This means that one of our priorities in teaching methodology should be encouraging students to think strategically. Accordingly, teachers need to emphasize the relationship between strategyuse and competent performance. Students' poor performance may, in part, be due to inappropriate procedures which, in turn, motivate students to use incorrect procedures.

This instructional model emphasizes the following points: 1) teachers should teach only a few strategies at time and teaching them well, rather than teaching many strategies concurrently and superficially; 2)students should be taught to monitor their performance as they execute strategies and perform educational tasks;3) students should be taught when and where to use strategies(meta cognition knowledge); 4)students; motivation should be maintained by making clear to them that competent functioning is often a result of using the right strategies; 5) strategies should be taught as part of the actual academic tasks that students face; 6)teaching strategies alone is not sufficient; therefore, there should be an interaction between strategies and the knowledge base. As Glaser (1984) points out, success cannot be attributed to either strategies or knowledge alone, but to strategies and other knowledge operating in combination; 7) there should be a gradual release of control from the teacher tithe student, with teachers resuming control as needed; and 8) strategy instruction is a long-term and detailed, with extensive presentation of information about strategies and extended practice in applying strategies.

Finally, Leinhardt and Ohlsson (1989: 35) suggest that students need to know: a) when the presentation of a new knowledge item begins and ends, b) which previously learned knowledge units a newly presented item should be related to, c) whether a lesson segment contains a presentation of a new knowledge item, or merely involves practice of already presented items, d)how to label and index knowledge items for later retrieval and e) whether symbols or symbol systems have distinct or identical referent. The basic message of Leinhard and Ohlsson's study is as follows:

Instruction is not simply an opportunity to learn, not simply a stream of information. Good instruction is crafted in such a way as to facilitate the difficult task of constructing new chunks of knowledge and of that stream ... Effective instruction, computer-based or otherwise is characterized by the degree to which it helps the learner set up the coming learning task in the appropriate way.

9. Teacher and Learners' Performance

It should be borne in mind that unsuccessful performance is not the only problem that classroom teachers are facing. That is, when the unsuccessful performance is systematic, it may be easier for teachers to remedy the problem by working on a specific problem. This can be done for example, by providing students with what they are lacking with a lot of practice students may be able to catch the correct structures. The problem, however, becomes worse when student's performance becomes unsystematically incorrect. In such a case, it would be difficult for class room teacher stop in point the exact problems these students are facing. Accordingly, although all language teachers want their students to perform successfully, no one can guarantee systematic successful performance on students' part. If this is the case, classroom teachers need to consider two things: first, second language learners' competence in a second language is developmental process and, accordingly, their errors are natural phenomena. In this way, I think we can end this fruitless debate on what is "learning" and what is "acquisition" (Krashen, 1987). Second, as long as errors are not considered a stigma, classroom teachers should direct their efforts towards "systematic performance." Systematic performance can be either successful, a high level of classroom instruction, or unsuccessful which we must naturally expect and accept. The first step towards helping students perform on language tasks successfully and systematically is to systematicize their erroneous performance. To do that, both teachers and students should cooperate to pinpoint the following: 1) The major problems that students believe to be problematic for them. This can be done by using questionnaires at the beginning of the term; 2) Teachers, then, can design tasks that test students' level of performance in the areas they previously claimed to be problematic;3) These tasks must be presented in a chronical form, that is, they should range from simple, complex and more complex tasks;4) By now, teachers and students must examine together the latter's performance in all these tasks to see whether students previous claims are correct or not, and to see whether other areas of the target language structure are problematic and students themselves do not know;5) After having an idea about the major problems, teachers should work hand-in-hand with their students to eliminate these problems.

It must be borne in mind that this process is not an easy one or has a specific end. Rather, it is tedious and requires continuous and close relationship between classroom teachers and their students. Teachers need to be enthusiastic, flexible and ready to work closely with their students as advisors not as authoritative figures. Learners, on the other hand, need to be motivated, extrovert and ready to take risks.

With this in mind, this study suggests that cooperative learning can be an optimal start keeping in mind the variance in our students' abilities. According to Calderon (1987), cooperative learning is a strategy for the classroom that used to increase motivation and retention, to help students develop a positive image of self and others, to provide a vehicle for critical thinking and problem solving, and to encourage collaborative social skills. In this regard,Christison and Bassano (1987) have identified six strategies for helping teachers understand group dynamics and promote peer support in the second/foreign- language classroom. These strategies are 1) restructuring; 2) one-centered; 3) unified group; 4) dyad, 5) small group, and 6) large group. It may be fair to claim that through cooperative learning techniques students can become real partners in the learning enterprise. Since most consequential problems are solved via collaboration, students who learn to work together in an educational setting are better prepared to meet life's obligations. Through cooperative learning techniques learners are asked to do things in the EFL classroom that they are asked to do in real life - take charge of and responsibility for their own learning (Christison, 1990).

REFERENCES

Alanen, R., 1995. Input Enhancement and Rule Presentation in Second Language Acquisition. In P. Schmidt (Ed.), Attention and Awareness in Foreign Language Learning (p 259-302). Honolulu: University of Hawaii Press.

Anne Brooks-Lewis, K., 2009. Adult learners' perceptions of the incorporation of their L_1 in foreign language teaching and learning. Language Learning, vol. 62.

Beare, S. and Bourdages, J., 2007. Skilled writers' generating strategies in L_1 and L_2: An exploratory study. In G. Rijlaarsdam, M. Torrance, and L. Van Waes (eds.), Studies in -Writing, vol. 20, Amsterdam.

Beneli, I., 1997. Selective Attention and Arousal. California State University, Hearing Research Centre.

Bialystok, E. 1978. A Theoretical Model of Second Language Learning: Language Learning 28: 69-84.

Bialystok, E. 1979. Explicit and Implicit Judgments of L_2 Grammaticality. Language Learning 29: 81-104.

Bialystok, E. 1982. On the Relationship between Knowing and Using Linguistic Forms. Applied Linguistics 3: 181-206.

Bickerton, D. 1975. Dynamics of a Creole System. Cambridge University Press.

Birdsong, D. 1992. Ultimate attainment in second language acquisition. Language 68: 706-755.

Blank, M, Gessnec, M. and Esposito, A. 1978. Language without communication: a case study. Child Language 6(2): 329-352.

Boyer, E. 1983. High School. New York: Harper and Row.

Brantmeier, C. 2003. Does gender make a difference? Passage content and comprehension in second language reading. Reading in a Foreign Language 15 (1): 39-78.

Brantmeier, C. 2004. Gender, violence-oriented passage content and second language reading comprehension. The Reading Matrix 4 92): 22-51.

Broadbent, D., 1957. Perception and Communication. London: Pergamon Press Ltd., 4.

Brown, A. 2009. Students' and teachers' perceptions of effective foreign language teaching: A comparison of ideals. The Modem Language Journal 93: 46-60.

Brown, G. 1996. Language Learning, Competence and Performance. In Brown, G., Malmkjar, K. and Williams, J. (eds.), Performance and Competence in Second Language Acquisition. Cambridge University Press.

Bruner, J. 1973. The Relevance of Education. New York: Norton.

Calderon, M. 1987. Cooperative Learning. Paper presented at Tselta Independent School District, El Paso, Texas, USA.

Cave, K. and Wolfe, J., 1990. Modeling the role of parallel processing in visual search. Cognitive Psychology 22 (2): 225-227.

Cherry, E., 1953. Some experiments on the recognition of speech, with one and two ears. Journal of the Acoustical Society of America 25; 975-979.

Chomsky, N. 1970. Aspects of the Theory of Syntax. Cambridge, MA : MIT Press.

Chomsky, N. 1995. The minimalist program. Cambridge, MA: MIT Press.

Christison, M. and Bassano, S. 1987. Look who's talking. Hayward, CA: The Alemany Press.

Christison, M. 1990. Cooperative learning in the EFL classroom. Forum, volume XXVIII, No. 4: 6-9.

Cook, V. 1993. Linguistics and Second Language Acquisition. The Macmillan Press Ltd.

Cross, J., 2002. Noticing in SLA: Is it a valid concept? TESL-EJ, 6(3): A-2.

De Bot, K.: Lowie, W. &Verspoor, M. 2007. A dynamic systems theory approach to second language acquisition. Bilingualism: Language and Cognition 1011: 721.

Deutsch, J. & Deutsch, D., 1963. Attention: Some Theoretical Considerations. Psychological Review 70: 809-890.

Dodd, d. & White, R., 1980. Cognition. Boston: Allyn and Bacon.

Doughty, C. & Williams, J. (eds.), 1998. Focus on form in classroom second language acquisition. Cambridge: Cambridge University Press.

Ellis, N.C., 2002. Reflections on frequency effects in language processing. Studies in Second Language Acquisition 24: 297-339.

Ellis, N.C., 2005. At the interface: Dynamic interactions of explicity and implicit language knowledge. Studies in Second Language Acquisition 27: 305-352.

Ellis, R 1990. A Response to Gregg. Applied Linguistics 11(4): 389-392.

Ellis, R. 1982. The Origins of Interlanguage. Applied Linguistics III: 207-223.

Ellis, R. 2006. Current issues m the teaching of grammar: An SLA perspective. TESOL Quarterly 40: 83-107.

Ellis, R., 1994. The Study of Second language Acquisition. Oxford: Oxford University Press.

Ellis, R., Basturkmen, H. &Loewen, S. 2001. Preemptive focus on focus in the ESL classroom. TESOL Quarterly 35 (3): 407-432.

Enns, J., 1990. Relations between components of visual attention. In J. Enns (ed.), The Development of Attention: Research and Theory. Amsterdam: Elsevier Science Publishers.

Epstein, S., Flynn, S. and Martohardjono, G. 1998. Second language acquisition: Theoretical and experimental issues in contemporary research. Brain and Behavioural Sciences 19: 677-714.

Eskildsen, S. 2008. Constructing another language - usage-based linguistics in second language acquisition. Applied Linguistics, Oxford University Press, 1-23.

Freeman, D. & Long, M. 1991. An Introduction to Second Language Acquisition Research. Longman, London and New York.

Gelman, R. &Meck, E., 1986. The notion of principle: The case of counting. In Helbert, J. (ed.), Conceptual and procedural knowledge. The Case of Mathematics. Hillsdale, NJ: Erlabaum.

Glaser, W. 1984. The identity society. New York: Harper & Row.

Greene J., Riley, M. &Gelman, R. 1984. Conceptual competence in children's counting. Cognitive Psychology 16: 94-134.

Goad, H. and White, L. 2004. Ultimate attainment of L_2 inflection: Effects of L_1 prosodic structure. In Foster-Cohen, S., Sharwood-Smith, M., Soarce, A. and Ota, M. (eds.). EUROSLA Yearbook: 119-145.

Haberlandt, K., 1997. Cognitive Psychology, Allyn and Bacon.

Hatch, E. 1978. Second Language Acquisition: a Book of Readings. Newbury House, Rowley, Mass.

Hawkins, R. 2001. Second language syntax: A generative introduction. Oxford: Blackwell.

Hiebert, J. &Lefevre, H., 1986. Conceptual and Procedural Knowledge. The Case of Mathematics, Hillsdale, NJ: Erlbaum.

Hymes, D., 1972. On Communicative Competence. In J. Pride and J. Holmes (eds.), Sociolinguistics. Hiddlesex: Penguin.

James, W.,1970/1890. The Principles of Psychology. New York : Holt.

Jourdenais, R., Ota, M., Stauffer, S., Boyson, B. & Doughty, C., 1995. Does Textual Enhancement Promote Noticing? A Think Aloud Protocol. In R. Schmidt (Ed.), Attention and Awareness in Foreign Language Learning (PP. 1-65). Honolulu: University of Hawaii Press.

Juffs, A. 1998. Some effects of first language argument structure and morphosyntax on second language sentence processing. Second Language Research 14: 406-424.

Juffs, A. and Harrington, M. 1995. Parsing effects in L_2 sentence processing: subject and object asymmetries in wh-extraction. Studies in Second Language Acquisition 17: 484-512.

Kahneman, D. &Treisman, A., 1984. Changing views of attention and automaticity. In R. Parasuraman and Davies, D. (eds). Varieties of Attention. Orlando, FL: Academic Press.

Kahneman, D., 1973. Attention and Effort. Englewood Cliffs, NI: Prentice-Hall.

Kissau, S., 2007. Gender differences in second language motivation: An investigation of micro- and macro-level influences. The Reading Matrix 7 (1): 31-58.

Krashen. S. 1982. Principles and Practice in Second Language Acquisition. New York: Pergamon.

Lanfer, B. &Girsai, N. 2008. Form-focused instruction in second language vocabulary learning: A case for contrastive analysis and translation. Applied Linguistics, 29/4: 694-716.

Hosni Mostafa El-dali

Larsen Freeman, D. & Cameron, L., 2007. Complex systems and applied linguistics. Oxford: Oxford University Press.

Leahey, T. & Harris, R., 1994. Learning and Cognition. Prentice-Hall, Inc.

Leow, R.P., 1997. Attention, awareness, and foreign language behavior. Language Learning 47: 467-505.

Leow, R.P., 2000. A study of the role of awareness in foreign language behavior: Aware versus unaware learners. Studies in Second Language Acquisition 22: 557-584.

Leow, R.P., 2001. Do learners notice enhanced forms while interacting with the L2? An online and offline study of the role of written input enhancement in L2 reading. Hispania 84: 496-509.

Mangubhai, F. 2006: What do we know about learning and teaching second languages: Implications for teaching. Asian EEL Journal 8(3): 1-20.

McLaughlin, B., 1987. Theories of Second Language Learning. London: Edward Arnold.

Neisser, U. &Becklen, R., 1975. Selective looking: Attending to visually significant events. Cognitive Psychology 7: 480-494.

Norman, D.A., 1968. A Memory While Shadowing. Quarterly Journal of Experimental Psychology 21: 85-93.

Nunan, D., 1996. Issues in second language research: examining substance and procedure. In Ritchie, W. and Bhatia, T. (eds.), Handbook of Second Language Acquisition: Academic Press.

Perry, R. & Lewis, C., 2009. What is successful adaptation of lesson study in the US? Journal of Education Change 10(4): 365-391.

Poole, A., 2005. Focus on form instruction: foundations, applications, and criticisms. The Reading Matrix 5 (1).

Posner, M.I & Petersen, S.E., 1990. The attention system of the human brain. Annual Review of Neuroscience 13: 25-42.

Pressley, M.,Goodchild, F., Fleet, J., Zajchowski, R. and Evans, E., 1989. The challenges of classroom strategy instruction. Elementary School Journal 89: 301-342.

Preston, D., 1996. Variationist linguistics and second language acquisition. In Ritchie, W. and Bhatia, T. (eds.), Handbook of Second Language Acquisition. Academic Press.

Ritchie, W. & Bhatia, T., 1996. *Handbook of Second Language Acquisition*. Academic Press Inc.

Robinson, P. & Ellis, N. 2011. Handbook of Cognitive Linguistics and Second Language Acquisition. Routledge, Taylor & Francis Group.

Rosa E. & O'Neill, M. D., 1999. Explicitness, Intake, and the issue of Awareness: Another Piece of the Puzzle. Studies in Second Language Acquisition 21: 511-556.

Rutherford, W. & M. Sharwood-Smith, 1985. Conscious-raising and universal grammar. Applied Linguistics 6: 274-282.

Sapir, E. 1921. Language: An introduction to the study of speech. New York: Harcourt, Brace and Co.

Schmidt, R., 1992. Psychological mechanisms underlying second language proficiency. Studies in Second language Acquisition 14: 357-385.

Schmidt, R.W. &Frota S.N., 1986. Developing basic conversational ability in a second language: A case study of an adult learner of Portuguese. In R. Day (Ed.), Talking to Learn: Conversation in Second Language *Acquisition* (pp. 237-326). Rowley, MA: Newbury House.

Schmidt, R.W., 2001. Attention. In P. Robinson (Ed.), Cognition and Second Language Instruction (pp. 3-32). New York: Cambridge University Press.

Schmidt, R.W., 1990. The role of consciousness in second language learning. *Applied Linguistics***11**: 129-158.

Schmidt, R.W., 1994a. Deconstructing consciousness in search of useful definitions for applied linguistics. *AILA Review* **11**: 11-26.

Schmidt, R.W., 1994b. Implicit learning and the cognitive unconscious: Of artificial grammars and SLA. In N.C. Ellis (Ed.), *Implicit and Explicit Learning of Languages* (pp. 165-209). San Diego, CA: Academic Press.

Schmidt, R.W., 1995a. Attention and awareness in foreign language learning. Honolulu. HI: Second Language Teaching and Curriculum Center, University of Hawaii.

Schmidt, R.W., 1995b. Consciousness and Foreign Language learning: A tutorial on the role of attention and awareness in learning. In R. Schmidt (Ed.), *Attention and Awareness in Foreign Language Learning* (pp. 1-65). Honolulu: University of Hawaii Press.

Schneider, W., Dumais, S. &Shiffrin, R., 1984. Automatic and control processing and attention. In R. Parasuraman and D. Davies (eds.). Varieties of Attention. Orlando, FL: Academic Press.

Schoenfeld, A. 1985. Metacognitive and epistemological issues in mathematical understanding. In Silver, E. (ed.), Teaching and learning mathematical problem solving: Multiple research perspectives. Hillsdale, NJ: Erlbaum and Associates.

Seliger, H., 1979. Implications of a multiple critical periods hypothesis for second language learning. In Ritchie, W. (ed.), Second Language Acquisition Research. Academic Press, New York.

Sharwood-Smith, M., 1981. Consciousness-raising and the second language learner. Applied Linguistics 11: 159-168.

Sharwood-Smith, M., 2004. In two minds about grammar: On the interaction of linguistic and metalinguistic knowledge in performance. Transactions of the Philogical Society 102: 255-280.

Sharwood-Smith, M., 1993. Input enhancement in instructed SLA: Theoretical bases. *Studies in Second Language Acquisition* **15**: 165-179.

Shiffrin, K., 1988. Attention. In R. Atkinson, H. Hemstein, G. Lindzey and R. Luce (eds.). Stevens of Experimental Psychology. New York: Wiley and Sons.

Silver, E.A., 1986. Using conceptual and procedural knowledge: A focus on relationships. In J. Hiebert, (ed.).

Solso, H., 1991. Cognitive Psychology. Allyn and Bacon.

Sorace, A. 2000. Syntactic optionality in L_2 acquisition. Second Language Research 16: 93-102.

Spada, N. &Lightbown, P. 2008. Form-focused instruction: Isolated or integrated. TESOL Quarterly 42 (2): 181-207.

Spelke, E., Hirst, W. and Neisser, U., 1976. Skills of Divided Attention. Cognition 4: 215-230.

Stevick, E., 1980. Teaching languages: A way and ways. Rowley, MA: Newbury House.

Strenberg, R., 1996. Cognitive Psychology. Harcourt Brace College Publishers.

Stubbs, M., 2007. Quantitative data or multi-word sequences in English: The use of the world 'world'. In Hoey, M., Mahlberg, M., Stubbs, M. and Teubert, W. (eds.). Text, Discourse and Corpora, London, Continuum.

Tarone, E., 1982. Systematicity and attention in interlanguage. Language Learning 32: 69-82.

Tarone, E., 1984. On the variability of interlanguage systems. In Eckman, F., Bell, L. and Nelson, D. (eds.), Universals of Second Language Acquisitions. Newbury House Publishers, Inc., Rowley, MA.

Tarone, E., 1985. Variability in Interlanguage study of Style-shifting in Morphology and Syntax. Language Learning 35: 373-404

Taylor, D., 1988. The Meaning and Use of the Term 'competence' in Linguistics and Applied Linguistics. Applied Linguistics 9(2): 148-168.

Tomlin, R.S. & Villa, V., 1994. Attention in cognitive science and second language acquisition. Studies in Second Language Acquisition 16: 183-203.

Trenkic, D. 2007. Variability in second language article production: Beyond the representational deficit vs. processing constraints debate. Second Language Research 23 (3): 289-327.

Truscott, J., 1998. Noticing in second language acquisition: A critical review. Second Language Research 14(2): 103-135.

Tsimpli, I. 2006. Variation in second language acquisition. Aristotle University of Thessaloniki, pp. 387-394.

Turner, J. 1980. The Development of Competence. Educational Review 2: 37-46.

Van Patten, B., 1990. Attending to form and content in the input: An experiment in consciousness. Studies in Second Language Acquisition 12: 287-301.

Vygotsky, L. 1978. Mind in Society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

White, L. 2003. Second language acquisition and universal grammar. Cambridge: Cambridge University Press.

White, L. and Genesse, F. 1996. How native is narrative? The issue of ultimate attainment in adult second language acquisition. Second Language Research 12: 233-265.

Wolfram, W. 2005. Variation and language, an overview. Encyclopedia of Language and Linguistics, 2[nd]edn., pp. 1-13.

Wong, L. 2003. Switching to first language among writers with differing second-language proficiency. Journal of Second Language Writing 12: 347-375.

Wong, W., 2004. Processing instruction in French: The roles of explicit information and structured input. In B. VanPatten (Ed.), *From input to output: A teacher's guide to second language acquisition* (pp. 187-205). New York: McGraw Hill.

APPENDIX 1

Name:
Country:
Sex:　　Male: ____　Female: ____

To: Students in the Advanced Level.

Please answer the following questions by placing an X on the line where indicated.

1.　　How old are you?
____　(A)　　Under 20
____　(B)　　Between 20 and 25
____　(C)　　Over 25

2.　　How long did you study English in your country?
____　(A)　　6 Years
____　(B)　　7 Years
____　(C)　　8 Years
____　(D)　　More than8 years

3.　　What did your previous English classes give most attention to (Please number in order of importance, #1 being most important etc.)
____　　　Listening
____　　　Reading
____　　　Writing
____　　　Grammar
____　　　Vocabulary
____　　　Speaking/Pronunciation

4.　　Had you ever been in an English speaking environment before coming to the United States?
____　(A)　　Yes
____　(B)　　No

5.　　If yes, for how long?
____　(A)　　Less than 6 months
____　(B)　　Between 6 months and 1 Year
____　(C)　　Between 1and2 Years
____　(D)　　More than 2 Years

6.   How long have you been in the United States?

____   (A)   Less than 1 Year
____   (B)   1-2 Years
____   (C)   More than 2 Years

7.   In your view, what areas of grammar trouble you most?

APPENDIX 2

FREE COMPOSITION
Please, write an essay of about 200 words on: "The Value of Learning English"

INSTRUCTIONS
▪   Please write in ink
▪   Pay attention to the grammar and meaning of your sentences
▪   You have forty minutes to write the essay
▪   Your name is: _____

Now, begin.

APPENDIX 3

Correction Task (1)

INSTRUCTIONS
The sentences used in this task are taken from your essays on "The Value of Learning English." Each sentence contains grammatical errors. Read each sentence carefully and correct what you think is wrong.

APPENDIX 4

Correction Task (2)

INSTRUCTIONS
The sentences used in this task are taken from your essays on "The Value of Learning English." Each sentence contains grammatical errors. These errors are underlined. Read each sentence carefully and correct what is underlined. You have 15 minutes to complete this task.

Table (1).   Number of students' errors in the essay unfocused correction and focused correction tasks.

Subject	Essay	Unfocused Correction			Focused Correction		
		Remaining	New	Total	From Remaining	From New	Total
1	8	4	3	7	1	2	3
2	27	8	5	13	1	3	4
3	9	3	1	4	0	0	0
4	18	7	4	11	0	4	4
5	23	7	1	8	3	2	5
6	17	11	1	12	12	0	12
7	9	1	5	6	3	0	3
8	12	6	0	6	0	2	2
9	12	4	5	9	2	1	3
10	7	1	4	5	0	0	0
11	15	8	0	8	6	2	8
12	11	2	2	4	2	1	3
13	9	2	4	6	6	1	7
14	11	5	0	5	3	1	4
15	25	8	2	10	3	2	5

Table (2).   The mean standard deviation and other measures of central tendency of subjects' errors in the essay.

Mean	14.200	Std err	1.665	Median	12.000
Mode	9.000	Stddev	6.450		
Kurtosis	-0.383	S P kurt	1.121	Variance	41.600
S F Skew	0.580	Range	20.000	Skewness	0 .920
Maximum	27.000	Sum	213.000	Minimum	7.000

Table (3).   The mean, standard deviation and other measures of central tendency of subjects' errors in the unfocused correction task.

Mean	7.600	Std err	0.742	Median	7.000
Mode	6.000	Stddev	2.874		
Kurtosis	-0.799	S P Kurt	1.121	Variance	8.257
S F Skew	0.580	Range	9.000	Skewness	0.548
Maximum	13.000	Sum	114.000	Minimum	4.000

Table (4).   The mean, standard deviation and other measures of central tendency of subjects' errors in the focused correction task.

Mean	4.200	Std err	0.788	Median	4.000
Mode	3.000	Stddev	3.052		
Kurtosis	2.091	S P Kurt	1.121	Variance	9.314
S F Skew	0.580	Range	12.000	Skewness	1.121
Maximum	12.000	Sum	63.000	Minimum	0.000

Table (5). ANOVA Summary Table.

Source	SS	D.F	MS	P
Type of task	775.60	2	387.80	35.53*
Error	305.73	28	10.92	

* $p < 0.001$

The following figure illustrates the decrease in the number of errors made by the subjects in these three tasks.
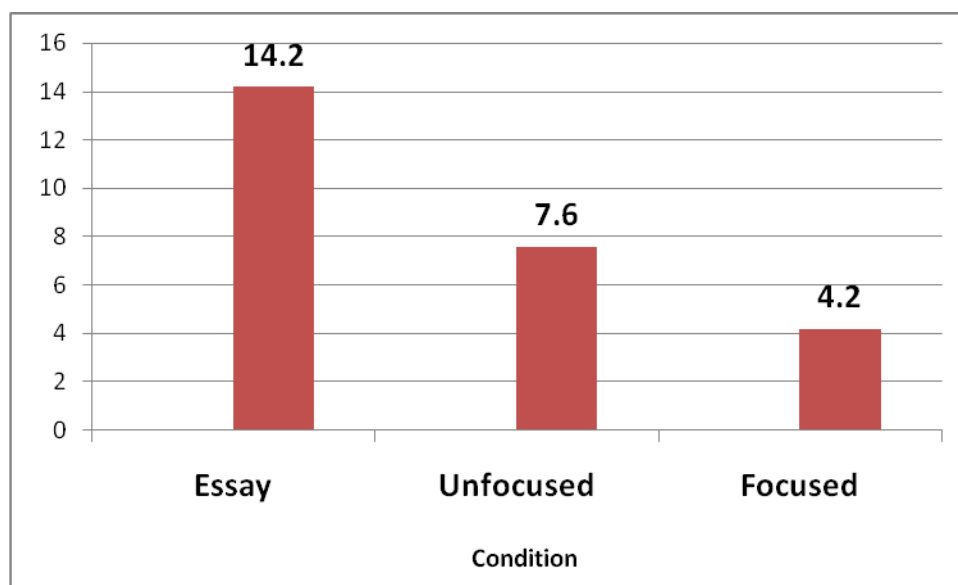

Figure (1): Plot of mean number of errors under the three conditions (the essay, the unfocused correction and the focused correction task).