The instrumental role of error analysis in developing an effective ESL pedagogy: A review

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ABSTRACT

With the advent of cognitive psychology, the validity of behavioral psychology, which is the prime-philosophical realization of contrastive analysis, has been mitigated in Second Language Acquisition Research. Cognitive psychology prognosticates that language learning is a rule-governed or creative structure acquisition rather than habit formation, and perceives the rule governed system-acquisition as to be cognitively processed through 'the hypotheses-formation and testing' rather than through 'stimulus and reinforcement'. This revolutionary perspective intensely changes SLA process and practice from the external to internal, in other words, from sociological to biological process of learning. As a consequence, Error Analysis has been evolved as a different applied linguistics method to look into the ESL learner errors and their potential sources. The paper focuses on the different insights and methods of Error Analysis and their predictability to verify and remediate ESL errors.

Key Words: Error Analysis; SLA; Interlanguage; Errors; LAD

Background to Error Analysis (EA)

Chomsky's review of Skinner's "Verbal Behavior (1957)" upset the speculations of behavioral psychology about the theory of learning. In his book *Aspects of the Theory of Syntax*, Chomsky (1965) proposed a theory of language acquisition in terms of "Language Acquisition Device", which is supposed to facilitate the learning of abstract grammatical rules. This theory supposes that children are little linguists and they constantly form and test hypotheses. The Theory is profoundly interesting to the contemporaneous linguists, especially to Corder, who applies the very theory to the second language acquisition context. With this cognitive approach, the perception of learning-process and the parameters of learner's errors are greatly altered. The learner's errors are no more considered "habits" but "significant of internal systems" and are become central to the studies of SLA, and are caused to dawn a new research tool, generally known as EA, which mainly concentrates on intralingual errors along with interlingual ones. (Flynn 1988:37-38)

Corder is considered the founding father of EA He diagnoses the significance of learner's errors, and views them as the reflection of

the learner's mental knowledge about the target language at different levels; the learner frames different strategies to learn the target language. They, the strategies and errors, are systematic in themselves. "The learner's errors are evidence of the system" assumes Corder (1967:166). This working assumption encourages an investigation into the learner's internal strategies of learning, Further, Richards integrates the paradigm of EA to interlanguage studies and posits that "EA basically dealing with the differences between the way people learning a language speak, and the way adult native speakers of the language use the language" (Richards 1971:12) and recommends that the application of such strategies to SLA is required to solve the problems.

1.1. *Salient notations of EA*: Smith points out that Corder, as pioneer of EA, has introduced several key notions current in second language learning. Some of them are;

A. Inbuilt syllabus: it is an idea that learners will not learn what they are not ready to learn. This idea explains psycholinguistic constraint on learning, and suggests that learners are hardwired in such a way that they will learn linguistic items in an internally determined order as opposed to one determined externally by a syllabus or a teacher.

B. Input and intake: input is supposed to be what the learner is exposed to and intake is what the learner actually takes in.

C. Transitional competence: it is supposed

to be the knowledge of the language to date. (Corder 1981, p.10)

D. Errors and Mistakes: Errors are seen as representative of the learner's present transitional system and Mistakes seen as a product of performance and hence unsystematic.

E. Idiolect: Corder saw the learner's interlanguage system as a variant somewhere between the first language and the target language, which, in contrast to a dialect shared by many individuals, is possessed by the individual and the individual only.

1.2 Some basic assumptions:

Nemser (1971) and Selinker (1972) exposed the same idea in different manner as reference to Corder's "Transitional systems". Nemser coined the term "Approximative systems" and Selinker "Interlanguage" to mean the same as Corder's Transitional systems. This trinity took the research on three basic assumptions, (derivable from salient notations referred above) which are founding-driven of SLA. They are:

A. That language learners are in possession of a complex and creative learning device.

B. That the learner's language competence at any given time is internally coherent and systematic.

C. That the learner's transitional competence or interlanguage is an idiolect, held by the individual in a unique way. (Block: 2003:17-18)

2. THE RESEARCH MODEL FOR EA: The goal of EA as that of contrastive analysis is ultimately pedagogical remediation through a pragmatic research. S. Pit. Corder, for the purpose, identifies a model for EA It consists of three steps:

a. Data collection: reception of idiosyncrasy.

b. Description: accounting for idiosyncratic dialect.

c. Explanation: (the ultimate object of EA) (Husian 2010, p.467)

In this regard, Gass and Selinker (1994, p.67) suggest a more detailed and sophisticated model for EA; the model consists of the following research procedure.

1. Data needs to be collected. This is typically done with written data.

2. Identifying errors: (into word class etc.)

3. Classifying errors: (over generalization, tense etc.)

4. Quantifying errors: (how many overgeneralization errors occur? How many tense errors occur?)

5. Analyzing source of errors: (interlingual, intralingual, due to a certain method)

6. Remediation for errors: (pedagogical intervention) (Husain 2010, p.467)

Like Gass and Selinker, Muriel (2006) provides the same model that with more explanation critically examines the errors. The model can be very useful to a researcher. It consists of the following steps:

a. Collection of data or learner' errors: most of the samples of EA are collected from the sources that respond to the same task or test. Some samples are collected over terms in order to assess the changing patterns in error occurrence with the shift exposure and proficiency of the target language.

b. Identification of errors: the errors will be identified in the samples collected in order to determine the different categories or sub- categories in which deviations from the target language norms are found. In this context, Corder (1967) differentiates systematic errors (deviations due to learner's incompetence of target language knowledge) and mistakes (deviations caused by the failure of processing the target language). Mistakes he exempts from analysis.

c. Description of errors: usually, the learner's errors that identified will be classified into the different linguistic levels like phonological, syntactic, morphological, or lexical etc., general linguistic categories like passive construction, auxiliaries etc. or more specific/sub-categories like articles, prepositions, verb-forms etc.

d. Explanation of errors: it is a most crucial attempt of EA to account for why an error is made. Usually, EA refers to two chief sources of errors. 1. Interlingual error sources 2. Intralingual error sources. The factors like negative transfer of the first language patters,

elements etc are referred to interlingual sources and the factors like non-cross linguistic interference or developmental in character are referred to be intralingual sources. Frequently, the distinction is built upon contrastive analysis procedures since it involves comparative knowledge or analogy between the first and the target language systems.

e. The evaluation of errors: It incorporates the assessment of the effect and intensity of error on something or someone addressed. It explains how serious or to what extent the error affects intelligibility or social acceptability. (Muriel 2006: 37-39)

This is the chief procedure EA approach adopts to analyze the learner's errors.

3. INTERLANGUAGE: EA is evolved into Interlanguage hypothesis (Connor 1996: 12-14). It is Nemser (1971) and Briere (1964/1968) that have first harboured the concept of Interlanguage but this concept is well associated with Larry Selinker. The notion of Interlanguage is the resultant of the observation that the second language learner often models the linguistic structures on a peculiar linguistic system which is different from the source language system as well as from the target language system. This unique language system is known as Interlanguage.

3.1. The fundamental characteristics of interlanguage system: the concept of Interlanguage forms some assumptions about SLA. Some of the salient ones are:

A. Learner builds a system of abstract linguistic norms that exist with the production and comprehension of second language. This system of norms is viewed to be the 'mental grammar' of the learner and is generally referred to as Interlanguage.

B. The system of the learner or 'mental grammar' is permeable. That is to say, the mental grammar of the learner is susceptible to the external (through the input like teaching or methods or transfer of training etc) and internal (learner's strategies of target language like omission, simplification, transfer or overgeneralization etc) influences that constitute the evidence of the internal processing of the learner.

C. The mental grammar of the learner is in a constant state of flux and so is transitional. The learner alters the mental grammar cumulatively by modifying the target language norms and reconstructing the whole system. This procedure leads to Interlanguage continuum. (Ellis 1997: 33)

D. Interlanguage system consummates in three different competences; namely 1. Fossilized competence 2. Functional competence 3.Transitional competence. The concept of fossilized competence was taken from Corder (Selinker: 1996:98). It states that many second language learners seem to reach a stable proficiency level of the target language and cease to advance any further. On their way to reach that stable level, they pass through different stages, characteristically transitional. Some learners achieve competence in specific domains only. They are competent in using

the new language mainly for specific purposes and this mode of competence is referred to as functional competence.

3.2. Interlanguage hypothesis development: the following are the prominent studies that have precipitated to develop Interlanguage Hypothesis.

3.2.1 Studies of the first language transfer: After Selinker's postulation of Interlanguage hypothesis (1972), Krashen (1981) proposed Monitor Model Theory. At its initial phrase, it greatly relied on the creative construction theory, which assumes that "language learning is a creative process in which the learner makes unconscious hypotheses on the basis of input. The process of input in turn is controlled by innate mechanisms, the same ones that operate in the first language". This assumption is the crux for the monitor model theory. It negates the principle of the first language transfer, which is axiomatic to contrastive analysis. Monitor model suggests that when learner acquires a second language unconsciously, the first language transfer is not evident, but it is evident when the acquisition is conscious. Monitor model dose not assign a role to the first language transfer but Interlanguage hypothesis accords a central role to it. The notion of the first language transfer in the case of Interlanguage hypothesis is what Selinker (1996) asserts on the firm evidence that the preferred learning strategy of the second language learner is the search for interlingual identification, a notion derived from Weinriech (1953/68). It means to say that interlingual identification/transfer is

interwoven with interlanguage hypothesis. (Malmkjan: 2004:83)

3.2.2. The studies of universal grammar or LAD (language acquisition device): the study of the role of universal grammar in the process of SLA also helps to explain the insignificant role of the first language transfer. Berns (2010) states that one of the contributions of Interlanguage hypothesis to the field of SLA in early 1990s, is historically established, research based and theoretically motivated frame work for the study of SLA, which can easily account for both the role of native language transfer and universal grammar in shaping Interlanguage.

3.3. The revised interlanguage hypothesis: In 1993, even though the basic claims of Interlanguage hypothesis remained unaltered and further reinforced by research findings in the intervening years, the hypothesis undergoes substantial modifications and expansions since its inception in 1972.

The application of the Interlanguage hypothesis is formerly limited to the adult acquisition of second language, but later, owing to the findings in Immersion Program, like the French Immersion Program in Canada, its application is extended to the case of children acquiring a language. It is evidenced in the programs the children producing interlanguages, in which apparently fossilized linguistic systems have been observed. These valuable findings have prompted to query whether those children are using their LADs to internalize the target

language or they are using the psycholinguistic processes that are more characteristic with adult SLA. A great deal of research is needful to determine, how, if at all, they differ from the adult learners.

The Interlanguage hypothesis is further expanded with the studies of the influence of universal grammar on the progress of Interlanguage. Since universal grammar is assumed to be central to the development of natural languages, the crucial enquiry is that, is interlanguage a natural language? This question receives two responses. One is from Selinker's initial hypothesis, which logically concludes that:

A. natural languages are produced by LADs.

B. language universals exist in human languages by virtue of the way in which LAD is structured.

C. but interlanguages, unlike native language, fossilize and evidence native language transfer.

D. interlanguages therefore are a product of latent psychological structures, not LAD's.

E. So, interlanguages do not have to obey language universals. On contrary, Adjemian (1976) and some others hold a differed position and claim that interlanguages are natural languages (although, unlike other natural languages, interlanguage rule systems are 'permeable'). As natural languages, interlanguages do have to obey language

universals. In a nutshell, interlanguages are the products of the same LAD that produces natural languages. So they too have to obey language universals. In this view, interlanguages fossilize because of complex changes in cases where parameters have already been set for one language and a second language must be learned. For this issue, a likely debate is certainly ongoing.

The third factor for the modification of interlanguage hypothesis is the interlanguage process development concerned. Increasing evidence affirm that interlanguage development seems to be vary in accord with social set up and discourse domain. It is observed that learns can produce a significantly more fluent, grammatical and transfer-free interlanguage in some social context than in others. And the important processes like fossilization may be more prominent for a given learner in one context than in other. This variedness in interlanguage production has been reviewed in Tarone (1988) is likely to be the problem of data-elicitation, a complex problem of SLA, which must be carefully accounted for.

Fossilization Phenomena itself, which broadened the scope of interlanguage hypothesis, is another crucial factor required serious investigation. Many important queries are posed. Is fossilization inevitable? Is it inevitable or temporary? Some answers are that the inevitability or temporariness relies on sociolinguistic forces, like the learner's identity with native

speaker group or target language speaker group. Regarding psycholinguistic processes shaping interlanguage, there has been a modified idea. As is the case with transfer principle in 1990, so are enquiries about interlanguage; that can we predict in advance what native language characteristics will influence an interlanguage? Which ones will not? When native language transfer combines with the psycholinguistic influences like learner strategies, transfers of training and markedness factors etc, the high probability of fossilization is observed. Still, the research on interlanguage has a multiple problems to solve in the intervening years. (Berns: 2010: 137-139)

4. ERRORS: the perception of errors in learning has been drastically changed with the Corder's "significance of the learner's errors" (1967), which observers that learner's errors predict the inner strategies and processes of the learner at a particular point of time in course of target language development and they are windows through which one can assess the learner's mind. In EA approach, learner language is considered to be independent of both the first language and the target language and the state of learner's mind signifies the learner's transitional competence of the target language system. Further, Corder claims that "The making of errors is significant because it is a part of learning process itself; a way the learner has of testing his hypotheses about the nature of the language he is learning. This process is inclusive of testing whether the aspects of

existing first language knowledge can be used in the target language". Errors are, thus, a sign of the learner's exploration rather than simply 'transferring' the old habits.

4.1. Error sources: Selinker (1972) proposes five processes involved in the problem of errors:

1. Language transfer: Some, but certainly not all, item, rules and subsystems of a learner's interlanguage may be transferred from the first language.

2. Transfer of training: Some interlanguage elements may derive from the way in which the learners were taught.

3. Strategies of second language learning: Selinker talks about an 'identifiable approach by the learner to the material to be learned'.

4. Strategies of second language communication: An 'identifiable approach by the learner to communication with the native speakers of the TL'.

5. Overgeneralization of target language linguistic material: Some interlanguage elements are the results of a ' clear overgeneralization' of the target language rules and semantic features) (Ellis 1994: 351).

In 1974, Richards and Simpson identified seven sources of errors:

1. Language transfer;

2. Intralingual interference;

3. Sociolinguistic situation;

4. Modality of exposure to target language and production;

5. Age;

6. Succession of approximative systems; and

7. Universal hierarchy of difficulty.

According to Dulay & Burt (1974), learning is not possible without goofing (error). They have diagnosed four types of "Goofs":

1. Interference-like goofs: those errors that reflect native language structures and are not found in first (English) language acquisition data.

2. L1 Developmental goofs: those errors that do not reflect native language structure but are found in first (English) language structure.

3. Ambiguous goofs (either interference-like or L1 developmental goofs): those errors that cannot be categorized as either interference-like or developmental.

4. Unique goofs (neither interference-like nor L1 developmental goofs): those errors that do not reflect first language structure and also are not found first (English) language acquisition data (Ellis 1986: 28; Gass 2001: 84).

James (1998), on the other hand, believes in three main sources of errors:

1. Interlingual: Errors caused by negative transfer from learners source language

2. Intralingual: Errors caused by the complexities of the target language system

3. Induced: Errors caused by improper transfer of training, improper method of teaching, etc. (Dodigovic 2005: 178).

5. CRITIQUE OF EA: EA is an effective research instrument for the studies of SLA. Yet, as is the case with many other methods and tools of research, it is also subjected to criticism. Critics point out the following inadequacies of the EA approach.

1. Ambiguity in classification: the first and foremost shortcoming with EA is the classification of errors from the target language point of view.

2. Schachter (1974) points out that it is difficult to ascertain what type of error a second language learner is making or why the learner makes it. One and the same error can frequently be classified to be either interlingual or intralingual, and sometimes this may not be the case of 'either or' proposition. It is evident that some errors are resulted from the interaction of the dual factors. (Andersen 1978)

3. Lack of positive data: EA exclusively interests in learner's errors alone and ignores learner' competence. It does not account for what the learner is able to or has acquired at a given stage of development. Sometimes, non-error phenomena provide useful information about learning and learner.

4. Potential for avoidance: Absence of errors may happen from the learners' avoidance of difficult structures, which is not explained by EA. Schachter (1974) makes the point that Chinese and Japanese L1 speakers make few errors in English L2 relative clauses because they avoid them (Muriel 2006: 40; Virginia 1995: 4-5; McLaughlin 1987: 129).

CONCLUSION

The inadequacies referred to EA suggest the researcher the precautions that should be taken up as analyzing the learner corpus or data. While ascertaining the source of an error the researcher should be more pragmatic and should come up with a more probable rationale so that they can be addressed in syllabic or material designing.

Moreover, at least from the pedagogically advantageous point of view, which the ultimate task for any teaching or learning method, EA has more efficacies rather than inadequacies, A second language teacher heuristically benefits a lot from the individual or integrated approach of contrastive and EA. Schachter and Murcia (1990: 281-82) opine that "the combination of C.A and E.A may constitute a useful approach". Valdman (2002: 20) suggests that "EA could be a highly fruitful source of language data on which pedagogical norms could be based". Bhatia (1991: 190) advocates that "without sufficient understanding of the nature and cause of errors, remedial work can and indeed often does take the form of re-teaching or re-drilling the problematic features without improvement as a result. To combat an error, the teacher should be aware of its cause. And since most errors are a natural result of learning processes, the theoretical function of EA, the investigation of these processes, is of direct relevance to the improvement of teaching".

Stubbs (2001) believes that a second language researcher can analyze learner performance data to infer the inaccessible mental process of SLA. Meunier (2002) advocates the use of learner data in class room, and suggests that "exercises such as comparing learner and native speaker data and analyzing errors in learner-language will help students to notice gaps between their interlanguage and the language they are learning". Keck (2004: 99) states that "in language pedagogy, the implications of learner corpora (data) have been explored for curriculum design, materials development, and teaching methodology".

Therefore, one can deduce from these valuable statements that E.A can be an effective scientific instrument to verify ESL learner-errors and to infer their strategies about the second language learning. The corpora that these instruments yield may serve the pedagogical purposes of ESL or EFL.

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