A study investigated success and efficiency of second language learners at varying proficiency levels in communicating intended meaning, including examination of factors contributing to communication breakdown and delay. Three groups of adults (native English-speakers and low- and high-proficiency learners of English as a Second Language) performed concept identification tasks for both concrete and abstract concepts. The groups were equally successful in communicating concrete concepts but not abstract concepts. Abstract concepts required more linguistic and cultural knowledge and grammatical accuracy, knowledge of discourse rules, and development of meaningful contexts were often more crucial in communicating them. In addition, constituent features of concrete concepts are generally visual and support agreement more easily. It was also found that the speaker was more likely to fail if the interlocutor did not participate actively by asking questions, rephrasing and repairing speaker utterances, rearranging clues, and synthesizing examples to obtain a pattern of meaning. Efficiency of communication was also found to be greater for concrete than for abstract concepts, attributed to several factors. Errors made within a context were found less distracting to interlocutors than errors in single significant words. Results suggest that negotiation of meaning is a necessary linguistic skill for second language learners. (MSE)
This study was an attempt to explore the success and efficiency of second language learners at different target language levels in communicating their intended meanings. The study included an examination of the factors contributing to learners' communication breakdowns and delay in the communication process. Three groups of adult subjects (native speakers, high proficiency ESL speakers, and low proficiency ESL speakers) were exposed to a concept identification task. The results of the study lend support to the proposition that a primary goal of L2 teaching should be developing the learners' survival skills for the negotiation of meaning in communication situations. Students' success in getting the message across should also be given evaluational priority over grammatical accuracy at the early stages of L2 learning.

Two hypotheses (H) were tested in the study:

The first H predicted that speakers differ in terms of their success in conveying their intended meanings as a function of their proficiency level in the TL.

The second H claimed that speakers differ in terms of the number of Communication Strategies (CS) they use in conveying their meanings, irrespective of the type of CS they use, as a function of their proficiency level in the TL.

Communication strategies have been defined as means/tools that L2 speakers use to compensate for gaps in their knowledge of the second language.
Method

There were three groups of 20 adult subjects each: two groups of Persian ESL students at two distinct levels of TL development, and a comparison group of native speakers (NS) of English.

The Michigan Test of English Language Proficiency and the IEA (International Educational Achievement) Test of Proficiency in English as a Foreign Language were used to determine the subjects' levels of grammatical and oral proficiency respectively. On the basis of the results (see Appendix A), two groups of ESL students at two different levels of TL proficiency were chosen for the study. Group 3 (G3) were the native speakers, Group 2 (G2) the high proficiency ESL speakers, and Group 1 (G1) the low proficiency ESL speakers.

Task

The communicative task designed for the study was a concept identification task, comprising 20 concrete concepts (e.g., pomegranate, abacus, seesaw and lantern) and abstract concepts (e.g., courage, pride, flattery and fate).

The task involved oral interaction between the subjects and their NS interlocutors with subjects communicating the concepts of interest.

In order to make the communicative task as close as possible to a real communication situation, each subject had a different interlocutor in order to avoid the subjective judgment of the same interlocutor as to the amount of information that s/he considered sufficient for the conveyance of the target items.

Procedures

In the case of concrete nouns (CN), the pictures of the target items, and in the case of abstract nouns (AN), the target words were put on separate cards and were presented to all subjects in the same order. The subjects were then asked to try to communicate the target concepts, without using the target words, to their interlocutors. A communication gap was, therefore, created between the subjects and their interlocutors to elicit purposeful, creative, authentic and unpredictable communication (features
of real life communication outlined in the literature, e.g., Johnson 1977). Interaction between the subject and the interlocutor continued until the interlocutor identified the target concept, or one of the parties gave up.

All interactions were tape recorded and then transcribed for subsequent analyses.

Results

Success

The analysis of the success rate of the subject groups in communicating the target concepts was done primarily by a simple count of each subject's frequency of successful communication. An analysis of variance was then conducted on the mean scores of the groups.

Table 1 shows that while groups were equally successful in communicating concrete concepts, ($F (2,57) = 1.29, n.s.$), they differed in the success of their communication of abstract concepts, ($F (2,57) = 12.71, p < .01; \text{Newman Keuls}, p < .05$).

Table 1. Summary for between group differences in success

<table>
<thead>
<tr>
<th>CN Set</th>
<th>AN Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>n.s.</td>
</tr>
<tr>
<td>G3 &gt; G2 &gt; G1</td>
<td>*</td>
</tr>
</tbody>
</table>

* $p < .5$

The results clearly indicated that AN were more difficult for the learners to communicate than were CN. The data were examined in an attempt to clarify in what way(s) AN were more challenging to the learners. The analysis showed that AN demanded more linguistic and cultural knowledge from the speakers and that, in general, grammatical accuracy,
knowledge of discourse rules and development of meaningful contexts were often more crucial to the communication of AN than to that of CN.

The following two examples demonstrate that in communicating CN speakers could simply name the features of the target items or use simple phrases to describe them, without necessarily having to put them in grammatically well-formed sentences. In the case of AN, however, syntactic accuracy and development of a meaningful context were often important for their communication.

Example 1:

"It's a mythical - well, religious figure - with two wings -- young -- usually chubby, young -- wings". (cherub)

Example 2:

"It's a quality of somebody who is fearless, who is - who does a lot of things that may be even dangerous without hesitation, who couldn't hesitate to - even become killed in some - something that he believes in, would go ahead in the front row." (courage)

The second reason that the communication of AN was more difficult than that of CN is that the constituent features of CN are visual; there is generally more agreement about the constituent features of CN than about those of AN. An interlocutor could build up a visual image of a given concrete target item on the basis of the clues received from the speaker. In the case of AN, however, the semantic components are not only invisible but also may carry social and cultural values of its speech community.

The invisibility of the semantic features of AN may affect their communication in at least two ways:

(1) Speakers may not clearly know the semantic components of certain AN and may not, therefore, be able to isolate all their constituent features. There may even be misconceptions about the precise meanings of these items. This problem was evident in the data of this study. In example 3 below, the subject was describing the target word martyrdom as a synonym for death, and did not make a distinction between the two concepts. Since the other essential semantic component of the concept (i.e., 'a cause') was missing from the description, the interlocutor was 'lost' and could not finally identify the concept.

Example 3:

S: A famous person . . one said . . I'm sorry . . he's died . . what were, what kind of word you use in a famous man, instead
of die? Because it's a . . it's impolite . . it's not a good word "die" . . what, what did, what do you say?

I: You mean instead of death. You don't say death you say . . . Why don't you say death?

S: Yes death. What did you say instead of death?

I: A word that means the same as death?

S: For example, in army . . famous officer is died. In newspaper, when you read what kind of word instead of "die" that have this meaning, die . . death?

I: Why don't you use die? I, I guess our newspapers would just say he died.

S: Yes. It's used to only die . . every person is died.

I: Yes. But why wouldn't you use death, like . .

S: Yes. Another one. (martyrdom)

(2) The second way in which the invisibility of the features of AN may affect their communication is that a definition or a context provided for the communication of a given abstract concept may reflect a number of relevant concepts. In this study, as seen in example 4, unless the subject was capable of focussing on, and specifying the aspect of the context related to the target concept, either the communication was prolonged or it became almost impossible for the interlocutor to identify the target concept.

Example 4:

S: Suppose you want to go to the unknown land, you're a person with ________? You have a ________?

I: You want to find out about this?

S: Yes.

I: Curious?

S: No. You don't know where, where is that place and you want to go to the place for discovering and . . For example you want to go to the forest. There are many many animals on there . . but you, you don't afraid of them you have a ________?

I: An objective, purpose, fear? I'm trying to think of words that would fit into that.

S: You want to fight with a . . a . . with elephant, for example. You know he is stronger than you, but you want fight them.
I: Stubborn, stupid.
S: No.
I: I'm driven. I don't know. (courage)

Another factor that can seriously affect the communication of AN is that, as mentioned previously, many of these concepts carry different social and/or cultural values for different speech communities and may, therefore, have certain connotations and associations for the ESL speakers which are not shared by the interlocutors. This adds, therefore, to the complexity of the construct of AN and may make it harder for the speakers and NS interlocutors to reach agreement on the meaning of some of those concepts. Of course, CI may also have different connotations and associations for speakers of different cultures. Furthermore, such differences may even exist among individual speakers of the same culture; however, these differences are more marked among speakers of different cultural groups and are more subtle in the case of AN. For example, in this study, in communicating the target item pomegranate NS subjects gave the following descriptions of the item.

"It's the passion fruit."

"Christ always held that to represent the sins of the world." Or, for example, the concept pride was defined by some NS subjects as follows:

"It is one of the seven deadly sins."

"It goes before the fall."

None of the above clues would have been appropriate for Persian interlocutors, who do not make the same associations with the corresponding concepts. Or, for example, while for Persian subjects the concept martyrdom was almost exclusively associated with "dying for a patriotic or a religious cause", for English-speaking subjects it was also associated with daily life contexts such as 'mother-child' relationship: "this is a quality that a lot of mothers have." This association would have made it almost impossible for a Persian interlocutor to identify the concept. Furthermore, in the case of AN, for example, the concepts flattery and pride tended to be judged negatively by Farsi speakers, whereas, they were very often defined in positive terms by English speakers.

Example 5 is the reason an interlocutor gave for his inability to identify the concept of pride from the subject's descriptions.
Example 5:

"I would use pride in a context as something that you have because you've done something well, but not that it's something that you lose because you've done something badly ... somebody can do something very badly all the time and still be proud. It's something you can have without much reason for having. It's one of the seven sins in Christianity. You hurt your pride but you don't lose it."

It appears, therefore, that the conceptual frameworks of speakers, which are established in their first language (L1) learning are transferred to their use of the second language (L2). That is, learners, at least at the initial stages of their L2 learning, only learn the new labels for previously acquired concepts with specific associations and connotations. 'Conceptual transfer' is, therefore, a subtle transfer from L1, which may create some problems in L2 communication. It seems, therefore, that 'contrastive conceptual analysis' would be an interesting area for L2 learning research.

Another factor affecting the communication of the concepts, particularly AN, was 'lexical split'. For example, the word "Patience" in Farsi, is a derivative from the verb "to wait". Thus, many subjects of the low proficiency group tried to arrive at the word "Patience" by giving clues to the verb "to wait", thinking that the same relationship exists in English. Or, for example, the same word is used in Farsi for "to define" and "to compliment"; so, a number of learner subjects used "to define a person" for "to compliment a person" in conveying the concept of flattery. Contrastive lexical analysis seems to be another important L2 learning research area where, to date, not much work has been done.

For the reasons discussed above, communicating AN was more challenging for the subjects than was communicating CN. Thus, the difference among the groups' ability to deal with the items, although not noticeable in context-embedded communicative situations (ie., CN), were detected in context-reduced communicative situations (ie., AN). These results suggest, therefore, that the type of item (by extension the type of message or topic of conversation) is a factor affecting the success of communication.

It1 was, therefore, partially confirmed by these results.

Apart from the factors discussed earlier, a number of other factors were also identified as major contributors to communication breakdown in general:

(1) The lack of meaningful interaction, particularly between the low-proficiency subjects and their interlocutors, would usually either result in
communication failure or would seriously prolong the communicative process. This lack of meaningful interaction, as shown in example 6, was noticeably due to the subjects' low comprehension level in the TL and their resulting inability to benefit from their interlocutors' responses and/or to provide adequate answers to their questions.

Example 6:

I: And it's a fruit?
S: I think you have, you see, you saw before.
I: Does it have a skin? A peeling? An outside?
S: The skin is red and inside is red.
I: Bright red?
S: This have a paste for use ... cooking.
I: So, they're good to eat (laugh). What kind of tree do they grow on?
S: Inside fruit is very very small.
I: Aha, does it grow on a tree?
S: Is red.
I: But does it grow on a tree rather than a little bush?
S: No tree! (pomegranate)

(2) Interlocutors had a contributing effect in the success or failure of communication. A learner speaker (usually in the case of low-proficiency group) was more likely to fail if the interlocutor would not take an active role in the communication process by asking questions, rephrasing and repairing the speaker's utterances, rearranging in proper order the clues received from the speaker and synthesizing the subject's examples in order to extract a common pattern of meaning from them (see example 7 below).

Example 7:

S: It's a kind of fruit.
I: A kind of fruit. Where does it grow?
S: The season of autumn, may be winter.
I: Grows in autumn. Like an apple?

BEST COPY AVAILABLE
S: No. And ... have a red, many many red among them. I don't know.
I: It's red and grows in the autumn. Where?
S: Where?
I: Yes. In Iran? Where does it grow?
S: I think in Iran we have very much; but now I didn't see here, before. (pomegranate)

Efficiency

Efficiency was operationally defined as the speed with which subjects could communicate their intended meanings (i.e., the average number of trials/CS used per item).

Two measures of efficiency were performed on the data. In the first measurement, the ratio of success to the total number of CS used, and in the second measurement, an average number of CS used per item, irrespective of success, were calculated. Thus, in the first measurement, a higher score and in the second one, a smaller score would indicate more communicative efficiency.

As seen in Table 2, both measures of efficiency produced similar results for CN. It is shown that only the difference between the NS and the learner groups was statistically significant (F(2,57) = 8.16, p < .01; Newman Keuls, p < .05) (first measurement) and (F(2,57) = 7.17, p < .01; Newman Keuls, p < .05) (second measurement); the difference between the two learner groups was insignificant. In the case of AN, however, the learner groups were different.

In the first measurement, the distinction among the three groups is clear (F(2,57) = 15.01, p < .01; Newman Keuls, p < .05); however, in the second measurement, although the mean score of trials for the high-proficiency group was less than that for the low-proficiency group, only the difference between the latter group and NS achieved statistical significance (F(2,57) = 6.41, p < .01; Newman Keuls, p < .05).
Table 2. Summary for between group differences in communicative efficiency

<table>
<thead>
<tr>
<th>Measurement</th>
<th>CN Set</th>
<th>AN Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success/CS</td>
<td>C3 &gt; G2, G1 *</td>
<td>G3 &gt; G2 &gt; G1 *</td>
</tr>
<tr>
<td>numbers of CS/Items</td>
<td>C2, G1 &gt; G3 *</td>
<td>G1 &gt; G3 *</td>
</tr>
</tbody>
</table>

* p < .05

Once again as in the analysis of 'success', CN did not clearly differentiate the ESL subject groups in their communicative efficiency, while AN did. In conclusion, H2 was partially confirmed by the above findings.

Factors contributing to communicative delay were investigated. Apart from the proficiency level of the speakers, the type of item (CN and AN) and by extension the type of message, a number of other factors appeared to influence the subjects' communicative efficiency. It should be pointed out that the reasons for communicative delay and communicative breakdown were not always clear cut, independent or consistent. First, a single factor that had caused communicative breakdown in one interaction might only result in communicative delay in another, depending on the other factors involved. In effect, any communicative failure or delay is the outcome of a cumulative effect. In general, it was noted, however, that while only serious knowledge deficiencies (i.e., linguistic) could result in communicative breakdown, the reasons for communicative delay could range from minor knowledge inadequacies to more serious inadequacies in the communication process. Some of these causes, which were identified as major contributors to either communicative delay, or even breakdown, are as follows:

(1) The type of CS used by the speakers to convey their intended meanings was a contributing factor to communicative efficiency. In this study, for example, strategies of synonymy and antonymy were usually far more effective than say analogy. (See appendix B for the taxonomy of CS used by the subjects of this study.)
(2) The same CS used by different speakers may have different surface realisations in terms of grammatical well-formedness, lexical choice and informative value.

An analysis of the surface realisation of a single CS (i.e., synonymy) used by different subject groups revealed that while NS' utterances encompassing their CS were error free, those of the learners, particularly the less proficient learners, contained numerous syntactic, lexical and phonological errors (see Appendix C) that at times interfered with the communication process (see discussion below). Grammatical accuracy appears, therefore, to have some role in communication success or efficiency. A more important factor in communicative efficiency, however, may be the informative value of the speaker's strategy.

An analysis of informative value of one of the CS used by subjects i.e., synonymy as judged by the appropriateness of their synonyms, demonstrated significant differences among the subject groups (see Appendix D). While the informative value of the strategy of synonymy could be judged by the appropriateness of the given synonyms, the informative value of other CS could probably be determined by the quality of the knowledge (e.g., world knowledge) utilized in them. For example, in communicating the concept of martyrdom, representing the concept through a national figure, not known to the interlocutor's speech community, is of no informative value. On the other hand, the indication of a hero known to the interlocutor may immediately trigger the target concept.

More specific use of vocabulary may also affect the informative value of the speaker's strategies. Compare the following examples:

It is a thing.

It is a kind of light. (lantern)

Both of the above are examples of the superordinate strategy. However, while the first example provides the interlocutor with a very vague piece of information, the second indicates a partial function of the object, and is consequently by far more informative.

An analysis of the number of immediate successes after the use of the strategy of synonymy revealed that more proficient speakers, having fewer inappropriate synonyms and making fewer grammatical errors, had greater number of immediate successes than did the less proficient speakers (see Appendix D).

(3) Another factor contributing to communicative efficiency was flexibility on the part of more proficient speakers, demonstrated in the analysis
of their patterns of repetition. Repetition was the most common compensatory tool used by the speaker of this study, when their initial attempt in communicating their meanings failed.

The analysis of the speakers' repetitions demonstrated that while less proficient speakers had greater mean percentage use of 'exact repetition', more proficient speakers resorted relatively more often to 'repetition of old information in new forms' (see Appendix E), which, clearly, requires flexibility in the use of linguistic forms (i.e., alternative syntactic structures and lexical items). The linguistic sophistication required for the use of this type of repetition may be the very reason that less proficient speakers gave up far more frequently than did more proficient speakers (see Appendix E). That is, more proficient speakers, being able to try out different ways of conveying the same message, were less willing to give up than were the less proficient speakers, who had a limited choice of ways of expressing their meanings (see Paribakht 1982 for details).

Apart from the factors suggested above and documented by the analysis of the data of the study, the following factors were observed to influence, in one way or another, success and speed of communication.

1. The speaker's greater fluency would reduce the number of broken sentences, repetitions and pauses and would, consequently, speed up the communication process.

2. Compatibility of the interlocutors with subjects in terms of:
   (a) Personality (e.g., perseverance in the communication of the message)
   (b) Shared knowledge of the world (e.g., the languages known, educational and/or professional backgrounds)
   (c) Being a 'visually oriented person' or an 'abstract thinker'

3. Giving the key features in describing the item, e.g., "handle" for "lantern" (also reported by Bialystok & Frohlich 1980)

4. Providing a proper sequence of clues for items A description which led from the more general to the particular was more appreciated by the interlocutors than one which led from the particular to the general.
The role grammaticality in interaction

An examination of the data revealed that numerous grammatical errors committed by the subjects were usually ignored by their interlocutors, for example:

S: It's a some fruit it has a name... red and, and there is a, there is many beans, bean, /grasp/ on that, that almost the... there is a protector skin.

I: Pomegranate.

Some of the errors of the subjects were, however, occasionally picked up by the interlocutors. These errors would enter the interactional process and would interfere with or affect the communicative exchange.

The general pattern was that an error within a context was less likely to be picked up by the interlocutor than one in a single word with an informative value. The errors occurring within a context and entering the interactional process were usually related to the key words of that context. Furthermore, if a given context was not identifiable because of numerous grammatical errors made by the subject, the interlocutor would often focus only on the item(s) which would make the clarification possible. For example, if the target word was thimble and the subject had problems in producing the words sewing and tailor, understanding or correction of either of these items would remove the distracting effect of the other errors, the context would then be clarified and the interlocutor would ignore the rest of the errors. In short, interlocutors tended to ignore those errors of the subjects which were not crucial to the subject's general meanings:

S: This always... /təˈlɔːr/ use if... when you want to /ˈsɛər/, /ˈsɛv/ something.

I: Who uses it?

S: A /təˈlɔːr/.

I: A tailor.

S: Tailor.

I: When he sews something... (thimble)
All the subjects' grammatical errors which were picked up by the interlocutors were identified and then classified. Table 1, Appendix C, reveals that these errors were basically either phonological (54%) or lexical (44%). Syntactic errors hardly ever interfered with the communication process (one instance only, = 1.9%). It is clear from Table 1 that G1 made far more distracting errors than did G2. In G1, 13 subjects made 51 grammatical errors which affected their communicative exchange with their interlocutors. As many as 52% of these errors were phonological, 46% were lexical and only 2% were syntactic. In G2, however, only 4 grammatical errors made by 3 subjects entered the interactional process. Three of these errors were phonological and one was lexical. Table 2, Appendix C, provides details on the number of subjects' grammatical errors in each group. The description of the error categories, and relevant examples, are given below.

1. **Phonological Problems.** As Table 1, Appendix C, indicates, the erroneous pronunciation of lexical items was most distracting to the interlocutors.

   1. S: You bit a . . . two . . . two /rɒp/, /rɒp/
      
      I: Rob?
      
      S: /rɒp/ R O P E (Subject spells the word).
      
      I: Ah, rope . . . (hammock)

   2. S: When you want to /su:/ . . .
      
      I: When you want to what? Sue somebody?
      
      S: Yes, no . . . you /su:/ with needle.
      
      I: Oh sew.
      
      S: Sew, excuse me! (thimble)

II. **Lexical Problems.** Lexical problems of the subjects, one of the main sources of distraction to the interlocutors, appeared in the following ways.

   A. **Phonologically Deviant Lexical Items.** The speaker produces a phonologically approximate form, non-existent in the TL, of a word. Examples:
1. S: You can /kænteynt/ with this . . . for bill and /kænteyn/.
   I: For containers, for boxes or something like that? I'm thinking of a box or a can. (Target word: counting) (abacus)

2. S: When you /æspræyz/ more, much more a person
   K: O.K., to prize highly . . . to, I have to say, honour (Target word: praise) (flattery)

B. Morphologically Deviant Lexical Items. The stem of the word is correct but the wrong form of the item is given, eg., farmer for farm:

   S: You use it in the farmer.
   I: In the where?
   S: In the farmer.
   I: Oh, I see what you mean. A scarecrow.

C. Semantically Deviant Lexical Items. The speaker offers a word, which is not semantically accurate, for the target item.

1. Use of the Wrong Word. The word provided by the subject is a correct word on its own, but is not the right word for the given context. Examples:

   S: It's a thing like that, like that man used in flat and that of . . . afraid the, the bird . . . don't eat.
   I: It's something used off the bird?
   S: In the, eh . . . in the flat.
   I: Oh, in the apartment, in the flat. (Target word: farm) (scarecrow)

Other examples of lexical error included the use of: "tablets", "beans" and beads for seeds; dice for beads; and soldering for sewing.

2. Semantic Approximation. A given word, which is semantically related to the target word but does not exactly communicate the speaker's intended meaning (= Semantic Contiguity), may be distracting to the interlocutor. For example, the use of park for farm or stone for dust.

   S: Sweeping in the. in the stone and put in it.
   I: Stones?
   S: Yeah! (dust pan)
III. Syntactic Problems. Only one instance of the subjects' numerous syntactic errors entered the interactional process. In this example, the subject's use of active form instead of a passive form, which changes the agent of the action, was misleading to the interlocutor:

S: When someone goes to . . . eh . . . and kill a . . . in war. That country said he is . . . what happens to him?

I: When someone kill . . .

S: Kill in war . . . war, and eh, people said that that he is a . . .

I: A hero.

S: Not hero . . . eh, after . . . after kill what happened for him? (martyrdom)

Implications for L2 pedagogy

The results of this study lend support to the belief that a primary goal of L2 teaching should be developing the learners' survival skills for the negotiation of meaning in communication situations. The results also support the notion that students' success in getting the message across should be given evaluational priority over grammatical accuracy at the early stages of L2 learning (also suggested by Terrell 1977, 1981). Other criteria that could be used for the evaluation of learners' communicative performance may include: the number of trials (i.e., speed) in conveying the message, flexibility in the use of linguistic forms, and knowledge of appropriate lexical connotations in the TL.

BIBLIOGRAPHY


Appendix A

Mean Scores and Standard Deviations of Grammatical and Oral Proficiency Scores of the Two Learner Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Michigan Test Of English Language Proficiency (written)</th>
<th>IEA Test of Proficiency in English (oral)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>f1</td>
<td>SD</td>
</tr>
<tr>
<td>G1</td>
<td>54.45</td>
<td>4.40</td>
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<td>N=20</td>
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<tr>
<td>G2</td>
<td>92.45</td>
<td>3.44</td>
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<td>N=20</td>
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</table>
Appendix B

Summary of the Taxonomy of Communication Strategies

I. Linguistic Approach (CN+AN)*
   A. Semantic Contiguity (CN+AN)
      1. Superordinate (CN+AN)
      2. Comparison (CN+AN)
         a) Positive Comparison (CN+AN)
            i) Analogy (CN+AN)
            ii) Synonymy (CN+AN)
         b) Negative Comparison (CN+AN)
            i) Contrast and Opposition (CN+AN)
            ii) Antonymy (AN)
   B. Circumlocution (CN+AN)
      1. Physical Description (CN)
         a) Size
         b) Shape
         c) Colour
         d) Material
      2. Constituent Features (CN+AN)
         a) Features
         b) Elaborated Features
      3. Locational Property (CN)
      4. Historical Property (CN)
      5. Other Features (CN+AN)
      6. Functional Description (CN)
   C. Metalinguistic Clues (CN+AN)

II. Contextual Approach (CN+AN)
   A. Linguistic Context (CN+AN)
   B. Use of TL Idioms and Proverbs (AN)
   C. Transliteration of LI Idioms and Proverbs (CN+AN)
   D. Idiomatic Transfer (CN+AN)

III. Conceptual Approach (CN+AN)
   A. Demonstration (CN+AN)
   B. Exemplification (CN+AN)
   C. Metonymy (AN)

IV. Mime (CN+AN)
   A. Replacing Verbal Output (CN+AN)
   B. Accompanying Verbal Output (CN)

* CN (concrete nouns)
  AN (abstract nouns)
Appendix C

Table 1

Types and Numbers of Learner Group's Grammatical Errors that Entered the Interactional Process

<table>
<thead>
<tr>
<th>Type of Error</th>
<th>G1 (n = 13) No. of Subjects</th>
<th>Number of Errors</th>
<th>G2 (n = 3) No. of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Phonological</td>
<td>25 12</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>II. Lexical</td>
<td>22 10</td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>A. Phonologically deviant</td>
<td>6 4</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>B. Morphologically deviant</td>
<td>2 2</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>C. Semantically deviant</td>
<td>14 8</td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>1. Use of the wrong word</td>
<td>11 8</td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>2. Semantic approximation</td>
<td>3 2</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>III. Syntactic</td>
<td>1 1</td>
<td>0 0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48 13</td>
<td>4 3</td>
<td></td>
</tr>
</tbody>
</table>

Table 2

Number of Learners Groups' Grammatical Errors that Entered the Interactional Process

<table>
<thead>
<tr>
<th></th>
<th>G1 No. of Errors</th>
<th>G1 No. of Subjects</th>
<th>G2 No. of Errors</th>
<th>G2 No. of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7</td>
<td>0</td>
<td>17</td>
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</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Table 1
Inappropriate Use of Synonyms by Subjects Using Synonymy Only

<table>
<thead>
<tr>
<th>Range</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>1-2</td>
<td>11</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>3-4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5-6</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6+</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 2
Group Mean Percentages and Standard Deviations for Inappropriate Use of Synonyms

<table>
<thead>
<tr>
<th>Group</th>
<th>M%</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>89.74</td>
<td>19.88</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>35.14</td>
<td>36.29</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>8.77</td>
<td>17.89</td>
<td>19</td>
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</table>

Table 3
Percentages of Immediate Success of Subject Groups in the Use of Synonymy

<table>
<thead>
<tr>
<th>Group</th>
<th># Syn.</th>
<th>Immediate Success</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>¥</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>39</td>
<td>13</td>
</tr>
</tbody>
</table>
## Appendix E

**Table 1**

Mean Percentages of Repetition Types Among Subjects Using Repetition

<table>
<thead>
<tr>
<th>Type of Repetition</th>
<th>Type 1&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Type 2&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Type 3&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Subjects</td>
<td>No. of Rep.</td>
<td>M%</td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1 N=20</td>
<td>19</td>
<td>154</td>
<td>63.24</td>
</tr>
<tr>
<td>G2 N=20</td>
<td>16</td>
<td>101</td>
<td>56</td>
</tr>
<tr>
<td>G3 N=20</td>
<td>10</td>
<td>21</td>
<td>50.5</td>
</tr>
</tbody>
</table>

<sup>a</sup>Type 1 = Exact Repetition  
<sup>b</sup>Type 2 = Old Information in a New Form  
<sup>c</sup>Type 3 = Old and New Information
Appendix F

Table 1

Mean Percentages of Giving up Pattern Among Subjects and Interlocutors

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Subjects</th>
<th>No. of Failures</th>
<th>% of Subjects</th>
<th>No. of Interlocutors</th>
<th>No. of Failures</th>
<th>% of Interlocutors</th>
<th>No. of Both</th>
<th>% of Both</th>
<th>Total No. of Ss who Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>48.3</td>
<td>29</td>
<td>24.9</td>
<td>13</td>
<td>26.7</td>
<td>12</td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>G2</td>
<td>10.3</td>
<td>4</td>
<td>47.5</td>
<td>13</td>
<td>42.2</td>
<td>17</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>G3</td>
<td>12.5</td>
<td>1</td>
<td>87.5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>