A study examined whether students of business English in a private university in Puerto Rico experienced oral communication apprehension and how it was related to their proficiency in English. Two tests were administered to 180 students: McCroskey's Personal Report of Communication Apprehension and the Michigan Test of English Language Proficiency. Results indicate no significant correlation between total English proficiency scores and communication apprehension, but some significant correlations between proficiency subtest scores and apprehension ratings. The 24 communication apprehension variables were distributed into four common factors, and cognitive and bodily responses to speech were found to account for most of the language proficiency variance. It is concluded that students' level of communication apprehension does not affect English proficiency; further study of the oral communication apprehension construct is warranted; and anxiety may result from an individual's inability to identify behaviors and responses expected to lead to successful outcomes. (MSE)
This study examined the existence of oral communication apprehension among 180 business English college students in a private university in Puerto Rico. The focus was on the relation between oral communication apprehension and English language proficiency.

The Personal Report of Communication Apprehension (PRCA) (McCroskey, 1970) was administered to categorize the subjects into three levels of oral communication apprehension: low, moderate, and high. The Michigan Test of English Language Proficiency (MTELP) was used to assess students' English language proficiency.

The most relevant findings were: (a) no significant correlations were found between English language proficiency total scores and oral communication apprehension; but significant correlations resulted between the subtests of MTELP and oral communication apprehension; (b) the 24 variables on the PRCA scale were grouped into four common factors and; (c) cognitive and bodily responses to speech (factor four), accounted for most of the English language proficiency variance.

Given these results, it was concluded that: (a) students' level of oral communication apprehension does not affect their English language proficiency; (b) further measurement and theoretical studies of the oral communication apprehension construct are needed because this study found a different set of factors; and (c) cognitive and bodily responses to speech, presents the idea of anxiety resulting from an individual's inability to identify behaviors and responses expected to lead to successful outcomes.

People vary in the degree to which they seek to avoid interactive situations that require verbal participation. These individual differences are both normal and expected; researchers have consistently described certain individuals who experience an inordinate amount of fear and anxiety about oral communication with other people. Whether this construct is described as reticence (Lustig, 1977; Phillips, 1965, 1968;
Rosenfeld & Plax, 1976), speech anxiety (Hollingsworth, 1935), shyness (Zimbardo, 1977), unwillingness to communicate (Burgoon, 1974, 1976), or more commonly, communication apprehension (McCroskey, 1977), the general observation is that there are some people who are more fearful than others in social-communicative interaction.

Research has focused on the notion that some people experience more oral communication apprehension than others (Hamilton, 1972; McCroskey, 1976; Scott, Yates, & Wheeless, 1975). Research has shown that such apprehension has negative effects on individuals' communication behavior in addition to other important aspects of their lives. The communication apprehensive is likely to experience anxiety in public settings in a discussion among peers, or even in an informal conversation with a teacher (Hurt, Scott & McCroskey, 1978).

Wheeless (1975) has asserted that few constructs growing out of the research on human communication phenomena have been found to significantly affect such a wide variety of behaviors as oral communication apprehension. The person who is considered an oral communication apprehensive is one who is found to have a high level of fear or anxiety about communication. An increasing number of research studies has found that oral communication apprehension is related to other personality correlates, and that it can be associated with a wide range of socially maladaptive personality behaviors (McCroskey, Daly & Sorensen, 1976). In addition a number of studies have
concentrated on the possible impact of the oral communication apprehension syndrome on learning outcomes in the classroom situation (Stack & Stone, 1984; Bashore, 1971; McCroskey & Andersen, 1976; Scott & Wheeless, 1977).

This investigation sought to answer the following questions:
1. Is there a relationship between language proficiency and oral communication apprehension?
2. Is there a relationship between auditory comprehension, grammar and vocabulary, and levels of oral communication apprehension?
3. What variables or factors are best predictors of English language proficiency for a population of business English college students?

METHOD

Sample

The subjects for this study were 300 business college students (ages 21 or younger) in a private university in Puerto Rico. The subjects were all second-year business English college students whose first language is Spanish. Most of these students were characterized by a socially and economically limited background. Their parents have low educational levels and live near or below poverty conditions.

From the pool of 300 students, a final sample of 180 students was selected. The final sample consisted of three groups of 60 students each. They were designated as: (a) high oral communication apprehensive; (b) moderate oral communication apprehensive; and (c) low oral communication apprehensive.
These groups were chosen by a stratified random sampling technique, using level of oral communication apprehension as the major criterion.

Instruments

The instruments used in this study were the Personal Report of Communication Apprehension (PRCA) and the Michigan Test of English Language Proficiency. Further descriptions and the rationale for use of each instrument are given below.

The Personal Report of Communication Apprehension (PRCA) was used to collect data on the subjects' fear or apprehension about communication. It is a 24-item, Likert-type, self-report scale constructed by McCroskey, 1975. The scale is designed specifically to assess college level students to obtain responses about their feelings concerning communicating with other people in the following contexts: group, meeting, dyadic, and public. The data collected were used to identify students who exhibit varying degrees of oral communication apprehension from "high" through "moderate" to "low".

The test assesses the extent of oral communication apprehension in the sample to which it is administered. The Personal Report of Communication Apprehension Scale as the instrument to be used in the present study was based on its availability, suitability for college students, recency, simplicity, and ability to measure what it purports to measure. The instrument consistently has yielded reliability estimates above .90 and test-retest reliability above .80 (McCroskey, 1975). Alpha reliability estimates were computed.
for the PRCA total score and subscores for English administration in Puerto Rico (Fayer, McCroskey, & Richmond, 1982). In the Spanish administration in Puerto Rico, the investigator found .86 reliability estimates.

In order to avoid language problems, the Personal Report of Communication Apprehension was translated to Spanish twice by two different Spanish-English bilinguals, using one of the procedures described by Brislin (1970). After two back-translated versions of the PRCA were produced, both versions were compared by a third bilingual. If there was a discrepancy in meaning between the two versions, the translation was determined by comparing both versions with the original English.

The Michigan Test of English Language Proficiency assesses the English-Language proficiency of potential university students who are not native speakers of English. The test samples students' control of grammar, vocabulary, listening comprehension, and reading comprehension.

Data Gathering Procedures

This study involved the assessment of the oral communication apprehension syndrome among business college students in the sample. The data collected by the PRCA, College Form, was used to assess the extent of oral communication apprehension. These data were used to categorize the subjects into high, moderate, and low apprehensives. Subjects who scored 80 or more on the scale were classified as "high oral communication apprehensives." Subjects who scored between 79 and 52 were classified as "moderate oral communication apprehensives." Subjects who scored 51 or less were classified as "low oral communication apprehensives".

Language proficiency was measured by the Michigan Test of English Language Proficiency. This standardized test assesses
the English-language proficiency of potential university students who are not native speakers of English. The test samples students' control of grammar, vocabulary, listening comprehension, and reading comprehension. For the present study, only three parts were considered: grammar, vocabulary, and listening comprehension.

RESULTS

Analysis

A Pearson product-moment correlation was used to determine whether there was a relationship between oral communication apprehension and measured English language proficiency. A factor analysis was conducted to determine whether the 24 statements in the scale could be described by a smaller number of factors. A multiple regression analysis was performed on the factors extracted from the factor analysis so as to predict the relationship between these factors and the dependent variable. The minimum level of significance reported was .05. The Statistical Package for the Social Sciences (SPSS) was used to process data on a Vax/80 VMS operational system.

A one-way analysis of variance was used to analyze the total scores and the scores of each of the subtests of the MTELP. The results of the analysis of the total scores indicated an F ratio of 1.11, which was not significant at the .05 level. There were no significant differences between the mean scores of oral communication levels and English language proficiency.

The results of the one way analysis of variance of the scores of the subjects on the listening comprehension subtest of the MTELP revealed an F ratio of 1.82 not significant at the .05
level. There were no significant differences between the mean scores of the listening comprehension subtest and oral communication apprehension levels. There were no significant differences in the mean scores on the grammar subtest and oral communication apprehension levels.

The results indicated an F ratio of 1.97, not significant at the .05 level. There were no significant differences between levels of oral communication apprehension and students' proficiency scores in vocabulary. The results indicated an F ratio of 2.71 which was not significant at the .05 level of significance.

A Pearson Correlation Matrix was constructed to show the correlations of five continuous variables: scores in auditory comprehension, grammar, vocabulary, total English language proficiency, and oral communication apprehension.

As was expected, there were positive correlations between English language proficiency total scores and auditory comprehension (.24), grammar (.33), and vocabulary (.27) as shown in Table 1. There were no significant correlations between English language proficiency total scores and oral communication apprehension.

Table 1

<p>| INTERCORRELATION MATRIX OF THE SCORES OF SUBJECTS ON THE ENGLISH LANGUAGE PROFICIENCY SCORES |
| (N = 180) |</p>
<table>
<thead>
<tr>
<th>AC</th>
<th>G</th>
<th>V</th>
<th>ELP</th>
<th>OCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory comprehension (AC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar (G)</td>
<td>.58**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary (V)</td>
<td>.52**</td>
<td>.67**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language proficiency (total scores) (ELP)</td>
<td>.24**</td>
<td>.33**</td>
<td>.27**</td>
<td></td>
</tr>
<tr>
<td>Oral communication apprehension (OCA)</td>
<td>.19**</td>
<td>.19**</td>
<td>.21*</td>
<td>.07</td>
</tr>
</tbody>
</table>

* p < .05
** p < .001
There were significant correlations between grammar and auditory comprehension (.58); grammar and vocabulary (.67); grammar and oral communication apprehension (.19); auditory comprehension and vocabulary (.52); auditory comprehension and oral communication apprehension (.19). As can be observed in Table 1, there were no significant correlations between oral communication apprehension and English language proficiency (.07).

To determine the interrelationships among the 24 variables in the scale, a factor analysis was computed. Means and standard deviations of the data obtained from students' answers to the PRCA scale were computed. It was found that from the 24 statements concerning their feelings about communication in English with other people, subjects agreed the most with the following statements: "While participating in a conversation with a new acquaintance, I feel very nervous"; "I feel relaxed while giving a speech"; "I'm afraid to speak up in conversations." The subjects disagreed the most with the following statements: "I like to get involved in group discussions"; "Ordinarily, I am very calm and relaxed in conversations"; "Generally, I am comfortable while participating in a group discussion."

In order to condense the 24 variables into a smaller number, and in order to relate them via multiple regression analysis to English language proficiency scores, a factor analysis was run and rotated to a varimax solution. Four factors were derived.

Factor 1 is defined principally by items that have to do with feelings in relation to oral communication. Factor 2 received substantial loadings from items related to communication in groups.
Factor 3 had to do with items related to communication with new acquaintances; and Factor 4 received loadings from items related to cognitive and bodily responses to speech. These subdivisions were different from those established by McCroskey (1977).

Table 2

INTERCORRELATION MATRIX OF SCORES ON THE MICHIGAN TEST OF ENGLISH LANGUAGE PROFICIENCY AND FACTORS OBTAINED IN THE FACTOR ANALYSIS

<table>
<thead>
<tr>
<th>ELP</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELP</td>
<td>-.15*</td>
<td>.05</td>
<td>.12*</td>
<td>.21**</td>
</tr>
<tr>
<td>F1</td>
<td>-.10</td>
<td>-.60**</td>
<td>.35**</td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td></td>
<td>.37**</td>
<td>.16*</td>
<td>.40**</td>
</tr>
<tr>
<td>F4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* P < .01  
** p < .001  

A stepwise multiple regression analysis was conducted using scores of the MTLEP as the dependent variable. This analysis determined which factors are significant predictors of the proficiency scores. The analysis shows that Factor 4 is correlated at .21 with the scores of MTLEP and it predicts no less than 4 percent of the variance of proficiency scores.

Only Factor 4 entered the regression equation at p < .05 as indicated by an F ratio of 8.16. That is, one variable contributed to the prediction of the variance in the language proficiency test at levels that would be statistically attributable to chance less than 5 times in 100 tries.
DISCUSSION

1. The results of the present study demonstrate that students' level of oral communication apprehension does not affect their English language proficiency.

2. According to the results of the Pearson Correlation Matrix, there were no significant correlations between English language proficiency total scores and oral communication apprehension. Although there were no significant correlations between English language proficiency total scores and oral communication apprehension, there were significant correlations between the subcomponents of the English language proficiency test and oral communication apprehension. There were significant correlations among grammar, auditory comprehension and vocabulary and oral communication apprehension. There were also significant correlations when the items in the 24 statements scale are grouped into the four factors. For instance, there is a negative, significant correlation between factor one (Feelings in relation to communication) and English language proficiency. There were significant correlations between factor four (Cognitive and bodily responses to speech) and English language proficiency.

3. The findings of this study in relation to the clustering of the factors add to the body of knowledge in relation to the construct of oral communication apprehension. This study examined the 24 statements in the oral communication scale, and these were grouped differently from the subdivisions proposed by McCroskey (1977). He proposed the following subdivisions: group, meeting,
dyadic and public. The 24 items clustered in four factors: Factor 1: Feelings in relation to communication; Factor 2: Communication in groups; Factor 3: Communication with new acquaintances; Factor 4: Cognitive and bodily responses to speech. The significant loadings on all four factors accounted for 61 percent of the total variance.

The results of this study show the need for more research on the oral communication construct. Factor 4: Cognitive and bodily responses to speech, is the factor that accounted the most to the variance of English language proficiency. It seems that there is a cognitive aspect that is not identified by the oral communication scale. The construct of oral communication apprehension is far more complex than McCroskey makes it appears to be. Further measurement and theoretical studies of this construct are needed since the present study found different underlying factors.

4. Factors one (Feelings in relation to communication), three (Communication with new acquaintances), and four (Cognitive and bodily responses to speech) related positively with English language proficiency. Factor four accounted for the greatest variance in the multiple regression analysis. Factor four included the following variables: (a) "Certain parts of my body feel very tense and rigid while giving a speech"; (b) "I feel relaxed while giving a speech"; (c) "My thoughts become confused and jumbled when I am giving a speech"; (d) "While giving a speech I get so nervous I forget facts I really know." As can be seen from the content of these items, all have to do with the productive as well as the performance aspects of the language. They have to do with speech and behavior in formal
situations. It can be concluded that Factor 4 (Cognitive and bodily responses to speech) presents the idea of anxiety resulting from cognitive and bodily responses to making a speech.

A reasonable explanation for the fact that Factor 4 accounted for the greatest variance in the multiple regression analysis is that public speaking apprehension may be a subset of the fear of evaluation. There are fewer situations in conversations, for example, in which the respondent is the target of evaluation. In most public settings, however, the respondent is indeed the direct target of evaluation. Low communication apprehensives may be people who expect positive reinforcement from such settings. High communication apprehensives may be expecting negative reinforcement or punishment in public settings. People are less likely to see a threat of evaluation in a conversation or small group.

The results of the present study also demonstrate that the items clustered in Factor 4 are related to the cognitive aspect of language and bodily responses to making a speech. It can be concluded that the cognitive aspect should be taken into account in oral communication apprehension theory. This conclusion is supported by Greene and Sparks (1982) who say that a cognitive theory of communication apprehension will account for the role of these factors. The view of communication apprehension taken here is that it is a state of fear or anxiety which arises when an individual is unable to identify behaviors which are expected to lead to the accomplishment of interaction goals. In other words, anxiety arises when an individual is unable to identify responses expected to lead to successful outcomes.
Implications for Education

The implications for education arising from this study may be stated as follows:

1. This study may serve to stimulate greater awareness and interest on the part of educators including teachers, counselors, curriculum planners, and administrators in the problem of oral communication apprehension among business English college students.

2. Awareness of the results of this study may encourage those who are responsible for the planning of programs and activities in college classrooms to explore the possibilities offered by existing techniques currently used in the alleviation of oral communication apprehension at the college level.

   There seems to be a need for relaxation techniques, systematic desensitization, cognitive restructuring, and other ways of helping students who have high levels of speech anxiety to cope with the problem (McCroskey, 1970, 1972; Garrison & Garrison, 1979). In the design of activities, strategies, and techniques to lower oral communication apprehension in those identified as high apprehensives, the cognitive aspect as well as the performance in formal situations should be taken into account in relation to oral communication in a second language.

3. The results of this study show the need to expand on the oral communication construct. Further measurement of this construct needs to be improved since this present study found different underlying factors to the construct.
4. A further implication may focus on the context in which communication occurs. The communication environment is an important asset in the development of effective and efficient communicators. It is also necessary for the identification and treatment of students who are found to have problems in communicating. One outcome of this study which may arise from greater awareness of the existence of this oral communication apprehension problem in classrooms at any level may be to focus on building and maintaining classroom settings conducive to oral communication. Such settings may be organized for the development and promotion of spontaneous oral communication in general without forcing it, as well as guided or structured activities to bring about effective and efficient oral communication. McCroskey (1977; 1981) underscored the need for this kind of communication atmosphere in the classroom when he suggested the establishment of a permissive communication climate in all classrooms.

5. There may also be implications for teacher education resulting from the greater emphasis on the oral aspects of the teaching of English as a second language as one of the possible outcomes of the findings of this study. The curriculum for the training of pre- and in-service teachers at teacher education colleges, with reference to the teaching of English as a second language, may be revised in order to prepare teachers adequately for the new thrust in the teaching of communication skills in development of functional communicative competencies. This revised curriculum may be designed to include activities for the training of teachers in the creation of less rigid, more informal and more communicative classroom settings leading to warmer and more relaxed teacher-pupil relationships.
REFERENCES


