

# Factors Leading to Success in Foreign Language Learning: A Comparative Study of Three Aptitude Tests

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## SUMMARY

This paper attempts to describe the nature of aptitude tests; particularly, 1) the merits accruing to more effective and meaningful teaching situations which result from using them, and 2) factors which are closely related to success in foreign language learning will be discussed.

To this end three aptitude tests have been analyzed and discussed. It seems clear that some factors (i.e. rote memorization, grammatical knowledge) may be more closely related than others to success in one's foreign language learning, but we do not yet have a full account of how and/or why. Some of the significant findings resulting from the present study were: 1) when the number of the criterion (with which the aptitude battery is correlated) was increased, the validity coefficients also increased, 2) I. Q. or marks in one's native language may well be used as a secondary basis on which one's aptitude toward foreign language learning is predicted.

So far, we have no convincing data concerning how one's interest or motivation will influence his future foreign language learning. It may be that such an attitudinal factor will not, by itself, cause individual differences in acquiring competence in foreign language skills.

Probably one of the most significant questions to be asked and studied experimentally will be: what factors are most closely associated with one's aptitude in developing expressive skills (speaking and writing). Vigorous efforts are anticipated in order to shed light on this hithertofore unsolvable question.

## Introductions

The true aim of the aptitude test lies in the fact that the data of this test can be used for creating a homogeneous group of students in a class so that the teacher can teach the subject matter most efficiently and effectively.

Also, creating a homogeneous group of students will be profitable for the students since it provides each one with the most suitable learning situation in terms of academic level. The school administrators and the teachers should make every effort to reach this goal. The higher the correlation between the aptitude test scores and foreign language scores, the better the teacher's chances to group his students homogeneously.

Diagnosis is another major purpose of the aptitude test. Ideally, any aptitude test should be constructed in such a way that it consists of subtests representing each skill of the language so that each student can easily recognize his weak area. More importantly, the teacher and the students should work together to overcome problem areas of the students.

The importance of diagnosis in foreign language instruction in the first and second years in the secondary schools can not be overemphasized, because the student's attitude toward foreign language learning in this period will considerably influence his future studies.

The diagnosis of the aptitude test plays an important role in helping students recognize their problem areas. It is usually true that early, sound, and accurate diagnosis increases the chances of overcoming special problems encountered by some students in the process of learning a foreign language.

A proficiency test and an aptitude test play a similar role in that both types of tests attempt to predict one's future performance in language skills. At the present time, however, that there seems to be no reliable and valid scale to gauge one's proficiency or aptitude in expressive skills (speaking and writing) of English as a foreign language. The difficulty, always inherent in measuring one's proficiency in expressive skills, is economy (practicality), if it is possible to maintain reliability and validity in a proficiency test.

Data based on numerous experiments with the cloze tests seem to indicate that the test is a very promising testing device, for a single scale, to measure one's overall competence of English as a foreign language. It must be noted, however, that we have no assurance that a high scorer on a cloze test will also perform well in oral or written work in his later language learning. Provided that the data of an aptitude test give us a clue as to how successfully one will perform in his expressive skills, there seems to be no reason not to administer an aptitude test to applicants for admission to high schools or to colleges. Thus, it becomes conceivable that identifying the factors leading to success in foreign language will have a tremendous impact upon the foreign language instruction.

Some research on foreign language aptitude seems to indicate that the ability to learn a foreign language is no longer dependent upon a person's innate and/or acquired "linguistic skills or knowledge." It can not be denied, however, that some people tend to believe in "a special talent" required to learn a foreign language. Such a misconception is sometimes

very harmful in that it affects the motivation of those who identify themselves as “not talented” in foreign language learning.

Carroll (1958) suggested that English grammar tests can be used to predict one’s success in foreign language learning. In his later study, Carroll (1961) found English vocabulary was not an influential factor in acquisition of foreign language.

Pimsleur, Stockwell, and Comrey (1962) emphasized that part of the aim of their research was to reduce the so-called “talents for languages” to a set of well-defined, measurable components. In an experiment with 410 French course students at American colleges, they found that verbal intelligence and students’ motivation were the most important factors, but added that the ability to articulate words rapidly and the ability to think up words quickly also contributed to successful learning.

Cooper (1964) reported a significant correlation between foreign language learning and the rate of acquisition of PAs (Paired Associations). Carroll and Sapon (1959) have included PA sections (foreign words as stimulus members and English equivalents as response members) in their MLAT (Modern Language Aptitude Test).

The primary function of the aptitude test is to make a prediction, usually at the beginning of the course of instruction, about whether the student is able to master the specific knowledge or skill necessary for fulfilling the defined course objectives. It is true that very often a prediction is made simply on the basis of the student’s IQ, or the average of his scores in his native language courses. Table 1 shows how unreliable and untrustworthy these notions are. It indicates that the predictions based on IQ scores or native language scores are inferior in predicting a student’s aptitude for foreign language learning. As the highest correlation .72 shows, the most desirable basis for prediction is to take the average marks in several subjects and aptitude test scores into account and to correlate these scores with actual future language performance.

**TABLE I**  
CORRELATION OF LANGUAGE MARKS WITH FIVE PREDICTORS<sup>(1)</sup>

Predictor	Correlation with language marks
IQ	r .46*
Marks in English	r .57
Average of marks	r .62
Aptitude test	R .62*
Average-Test	R .72

\* the small letter “r” signifies a correlation between just one predictor and the criterion, while a capital “R” signifies that a multiple (several part) predictor was used.

There are two major aptitude tests; one is the Pimsleur Language Aptitude Battery (LAB) constructed by Pimsleur and the other is the Modern Language Aptitude Test (MLAT) constructed by Carroll and Sapon. Later in this paper, the Foreign Language Aptitude Test (GTT), which was developed by Osaka YMCA Research Center of English Education

in Japan will be discussed.

### **A Discussion of the Language Aptitude Battery (LAB)**

The Pimsleur Language Aptitude Battery (LAB) (1966) consists of six parts: 1. Major Subjects, 2. Interest, 3. Vocabulary, 4. Language Analysis, 5. Sound Discrimination, and 6. Sound-Symbol Association. These six parts of the aptitude test are considered to be based on three factors. The first factor deals with the student's verbal intelligence. Associated with this factor is the Vocabulary subtest which tries to measure the student's familiarity with words in his mother tongue. Verbal intelligence also deals with the ability to manipulate verbal material analytically. This element is tested by the Language Analysis subtest. The second factor has to do with the student's motivation for learning a foreign language and is measured by the Interest subtest. The third factor is auditory ability and tested by Sound Discrimination and Sound-Symbol Association subtests.

The following is a brief description of each subtest.

Part 1: Major subjects—Following the instructions of a taped voice, the student fills out on his answer sheet his most recent marks in English, Mathematics, History, and Science. (1 minute)

Part 2: Interest—The student indicates, on a five-point scale printed on his answer sheet, just how interested he is in learning a foreign language. (2 minutes)

Part 3: Vocabulary—a 24-item test of the pupils' command of the vocabulary of his native language. (6 minutes)

Part 4: Language Analysis—The student sees a series of foreign forms (in Kabardian) and their English equivalents. From these he is to conclude how other things would be expressed in this language. (15 items, 12 minutes)

Part 5: Sound Discrimination—The student learns three foreign words from the tape (in Ewe); they are similar in sound but not identical. He then hears sentences spoken in Ewe and has to tell which of these three words was contained in each sentence. (30 items, 8 minutes)

Part 6: Sound-Symbol Association—The student hears nonsense words of two- or three-syllable length and must choose, from among four printed words, the correct spelling of the one he heard. (30 items, 9 minutes)

The entire Battery can be administered in about 40 minutes. All instructions and time indications are given on the tape. The Pimsleur Language Aptitude Battery was administered to a total of 3,845 students; 1,201 students in the seventh grade, 979 students in the eighth grade, and 1,765 students in the ninth grade. The reliability coefficients of the Battery (Parts 3 through 6) for each group of students were 0.85, 0.89, and 0.89 respectively. Pimsleur considers these figures satisfactory if the shortness of each part of the test is taken into account. The test was constructed so that the majority of students could finish it in a single hour.

Validity coefficients of this test were computed by comparing the test scores with the actual achievement in foreign language classes in later years. The manual for the "Apti-

tude Battery" reports a median validity of 0.57 from which 31 coefficients ranging from 0.25 to 0.79 were averaged. Pimsleur also considers that the median validity figure of 0.52 is quite satisfactory when one compares this figure with other tests of language aptitude, or with aptitude tests in other areas.

The diagnosis based on the factor analysis for four actual cases is illustrated below in Table 2.

**TABLE II**  
DIAGNOSIS AND PREDICTION OF A STUDENT'S FOREIGN  
LANGUAGE STUDY<sup>(2)</sup>

Case 1: Pupil R. P.				
	Vocabulary	Lang. Anal.	Sound Disc.	Sound-Symbol
+2	x	x		x
+1			x	
Average				
-1				
-2				

The student's scores in the last four parts of the Battery are expressed as x. The distance between the actual scores represented by x and the mean shows how superior or inferior the student stands in each particular part of the test compared to the test norms.

The first case reported in Table 2 is that of an Ohio junior high school girl R. P. Since all of her scores fall well above average, it was predicted that she would be one of the best students in the foreign language class. This prediction was found correct when it was confirmed by her teacher, who reported that she was one of two best students in her class.

In order to maintain objectivity and fairness in the diagnosis, all correspondence between the teacher and the diagnostician was made by letter so that both sides could have no personal acquaintance. Diagnosis was made only on the basis of the student's test scores. Furthermore, the results of diagnosis was not shown to the teacher until the student had received final grades from the teacher.

**TABLE III**  
DIAGNOSIS AND PREDICTION OF A STUDENT'S FOREIGN  
LANGUAGE STUDY<sup>(3)</sup>

Case 2: Pupil K.J.M.				
	Vocabulary	Lang. Anal.	Sound Disc.	Sound-Symbol
+2				
+1	x			
Average		x		
-1			x	x
-2				

In the case of pupil K.J.M., shown in Table 3, the scores on the first two tests were about average while the scores of the last two tests were a little below average. The first two tests were designed to measure the student's verbal intelligence whereas the last two tests were constructed to test his auditory ability. The diagnosis for this student suggested that he would not do well in any aspect of language learning except that he might do slightly better in written work than in oral work. This diagnosis was later verified by the teacher.

The fact that this student, C. C., Table 4, achieved high scores in the auditory aspect of tests would lead one to expect that he would do better in aural and oral work than in grammatical or translation exercises. Later this diagnosis was confirmed when the student received a mark C in her written work and a B in her oral work.

**TABLE IV**  
DIAGNOSIS AND PREDICTION OF A STUDENT'S FOREIGN  
LANGUAGE STUDY<sup>(4)</sup>

Case 3: Pupil C. C.				
	Vocabulary	Lang. Anal.	Sound Disc.	Sound-Symbol
+2				x
+1			x	
Average				
-1	x			
-2		x		

This student, M. E., Table 5, seems to have performed near average in three parts of the Battery, but obtained a very low score in the last test, Sound Symbol Association. The diagnosis was made accordingly that this student would probably have difficulty in aural and oral work. The prediction was correct as her final grade in French turned out to be a B for written work and an F for oral work.

**TABLE V**  
DIAGNOSIS AND PREDICTION OF A STUDENT'S FOREIGN  
LANGUAGE STUDY<sup>(5)</sup>

Case 4: Pupil M. E.				
	Vocabulary	Lang. Anal.	Sound Disc.	Sound-Symbol
+2				
+1			x	
Average		x		
-1	x			
-2				x

### An Evaluation of the LAB

As one can see Pimsleur seems to presuppose that auditory ability is correlated with

oral ability. In the diagnosis of Case 2, he says, "Said in other words, his low scores on the auditory ability tests (the last two) lead one to expect he may do poorly in oral work".<sup>(6)</sup> In Case 3, he says, "The test results indicated she would do better at audio-lingual work such as comprehension of the spoken language, pronunciation, and speaking, . . ." <sup>(7)</sup> In fact, both diagnoses proved to be true later by the teacher. However, the question is whether we can say that auditory ability will always correlate highly with oral ability. Regarding this question Carroll points out that :

It is also much more important to observe the distinction between productive and receptive skills because progress in these aspects may not proceed *pari passu* as it ordinarily does in the native language. It is quite possible for a competence to relate specifically to production and not to reception, or vice versa. For example, cases are reported in which a learner cannot discriminate two foreign language phonemes spoken by others and yet is able to produce them in a distinctive fashion; the reverse case is even more frequent. Thus, productive and receptive skills must be separately tested because they are less likely to be highly correlated than in the case of native language competences.<sup>(8)</sup>

(author's underlining.)

With respect to this matter Lado also mentions that :

The product-moment coefficient between the Test of Aural perception and the Test of Oral Production—The Sound System is .30, .14. Although the problems tested in these two tests are not entirely the same they have enough in common to justify the assumption that the correlation reflects the relation between reacting to the sound system and producing that system. The relation between aural perception and pronunciation is lower than would be expected in such closely allied skills. One corollary to this relatively low correlation is that we cannot use aural perception data as a measure of pronunciation; pronunciation has to be measured separately.<sup>(9)</sup>

(author's underlining.)

Another citation comes from Elizabeth Ingram who says :

We know very little about the correlation between the mode of speaking and the other modes. There is simply no evidence, whatever people may feel in their bones about it.<sup>(10)</sup>

Thus, it would have been safer perhaps if the diagnosticians had tested oral skill separately rather than making predictions of students' oral ability, based on his performance on a test measuring aural skill.

The second subtest of Pimsleur's Battery is aimed at assessing interest or motivation. It requires the student to indicate on a five-point scale the extent of his interest in learning a foreign language. Notably, Pimsleur does not seem to have made any statement about the reliability or validity of this subtest. This author may not be the only one who had expected to know the relationship of this test to the student's achievement in foreign language learning.

### **A Discussion of the Modern Language Aptitude Test (MLAT)**

As a result of five years of research (1953-58), Carroll and Sapon (1959) developed the Modern Language Aptitude Test. A number of language pretests were administered and the final five tests were selected on the basis of fairly low inter-correlation and contributions

to predictive validity. The language pretests (experimental tests) were given to approximately 5,000 high school and college students, and adults. Carroll considers that these five tests measure distinct abilities. These abilities are represented by four factors: 1. phonetic coding, 2. grammatical sensitivities, 3. rote memorization, and 4. inductive language learning ability.

The following is a brief discussion of this test.

1. Number Learning (15 items, 43 points)—This part measures rote memory for recall of numbers in an artificial language. The student hears the words corresponding to the digits and is asked to write the numbers spoken in the new language.

2. Phonetic Script (30 items)—This section tests the student's ability to associate sounds with written symbols (similar to Pimsleur's test (6) Sound-Symbol Association). Each item consists of four one-syllable words which are written in phonetic transcription. The voice on the tape reads five test items consecutively at normal speed, with pauses after each item. After the voice reads through all items, it goes back to the first item and reads one syllable. The student then determines which of the four syllables of the first item was read and underlines it. Carroll and Sapon claim that this test highly correlates with the ability to mimic sounds.

Example: underline the word you hear; tik, tiyk, tis, tiys.

3. Spelling Clues (50 items, five minutes)—This part tests the student's oral ability and the range of his vocabulary. The examinee is given a headword which is spelled approximately the way it is pronounced; he is to choose the word among five choices which has nearly the same meaning as the headword. The test administrator does the sample exercises with the class.

Example: Which choice is a synonym of the word pronounced?

- |              |              |
|--------------|--------------|
| 1. luv       | 2. erust     |
| a. carry     | a. shelter   |
| b. exist     | b. sincere   |
| c. affection | c. slanted   |
| d. wash      | d. free      |
| e. spy       | e. impatient |

4. Words in Sentences (45 items)—This part tests the student's grammatical knowledge of English sentence structure. The results of this test may be used as a good indication of the student's ability to handle grammatical knowledge in the new language. Each item has a key sentence with one word or phrase written in capital letters and underlined. The examinee is to choose from the underlined words or phrases the one which has the same grammatical function as the underlined word in the key sentence. Several sample items are practiced under the teacher's guidance.

Example: Which word which is marked A through B does the same thing as the underlined word in the key sentence?

- a. LONDON is the capital of England.



- He liked to go fishing in Maine.  
<sub>A B C D E</sub>
- b. Mary is cutting the APPLE.  
My brother John is bearing his dog with a big stick.  
<sub>A B C D E</sub>
- c. There was much TALK about a rebellion.  
 Where is John?  
<sub>A</sub>  
 There is no doubt about it.  
<sub>B C</sub>  
 There lay the dead horse.  
<sub>D</sub>  
 There I found my answer.  
<sub>E</sub>

5. Paired Associates (24 items, 4 minutes)—This part tests the student's rote memory for Kurdish vocabulary. This test is similar to the Number Memory subtest except that the focus here is on visual memory rather than auditory memory. The student is presented with 24 foreign words and their English equivalents and is given two minutes to study them. Then the student is given practice writing 24 foreign words and their English equivalents and checking his answers with those on the test work sheet. Each test item has one foreign word and five English words from which the examinee is to choose the closest equivalent. After the test starts, the examinee is not allowed to look at the Kurdish words and their English equivalents on the work sheet.

Example: hij: frog, fall, cold, draw, book.

### A Comparison of the MLAT with the LAB

There seem to be three major differences in construction between the MLAT and the LAB. First, while the LAB assesses the student's motivation and his academic achievement in order to make a prediction of his aptitude for foreign language learning, the MLAT does not. Second, while Carroll and Sapon (MLAT) measure the student's grammatical sensitivity and inductive language learning ability in their test (Words in Sentences subtest) the LAB does not. Thirdly, while the MLAT tests the students' rote memory ability (Number Learning and Paired Associates) the LAB does not.

### An Evaluation of the MLAT

After using MLAT, Carroll concludes, "These five tests were relatively uncorrelated . . . showed good validity and made unique contributions to the prediction of success in foreign languages."<sup>(11)</sup>

Neither the LAB nor the MLAT attempt to measure the production skills (speaking and writing). Three major questions seem to be preventing the development of good aptitude tests. Ordered in terms of importance they are: What constitutes the person's oral ability? How does one score oral production objectively? How can one administer and score oral tests economically?

J. Donald Bowen summarizes his finding from the MLAT Manual in the following way.

It predicts how well an individual will learn a foreign language under typical conditions in

a given time (not whether he can learn it if he is given unlimited time and opportunity to do so); it identifies certain abilities which will show how well he can perform similar tasks in a new language, like memory and auditory alertness, ability to associate sound with symbol, extent of one's vocabulary in his native language, knowledge of the grammatical structure of the native language, and rote memory; it shows that previous language training has little effect on the success or failure of subsequent language training; it shows that intelligence is not always a good indication of foreign language aptitude; it can not predict what special skills or weakness will develop in the advanced stages of learning; it indicates that the common belief that younger students are better language learners is not correct (presumably based on the validation samples for age correlation, i.e., high school through adult classes); it also shows that sex differences are evident in language learning especially at upper grade levels, with girls tending to score higher and get higher grades in language study; and it predicts greater success for those enrolled in "intensive" courses than those in typical high school and college courses, probably because the motivation is greater.<sup>(12)</sup>

### **A Discussion of the Foreign Language Aptitude Test (GTT) in Japan**

In 1970, a project team of the Osaka Research Center of English Education in Japan undertook the development of the Foreign Language Aptitude test (GTT), which was completed in 1973. In this project, Murakami (1972), the then director of the YMCA Research Center, attempted to clarify what factors cause individual differences in learning a foreign language: why it is easier for some students and conversely, more difficult for others to learn a foreign language, and what factor(s) will lead one to succeed or fail in acquiring certain skill(s).

In order to determine what to test, 213 Japanese teachers of English were asked to point out what they considered to be the ten most influential factors in foreign language learning. After a careful survey, five subtests were constructed. They are: 1. Memory of Vocabulary, 2. Grammar Comprehension, 3. Intonation Patterns, 4. Verbal Mimicry, and 5. Memory Store.

The pretest was first administered to 290 primary school and junior high school students, and adults. The tested adults attended several courses such as the Night Course of English Conversation, the Intensive Training Course, and the Secretary Training Course. After the pretest administration, an item analysis was done. To increase validity, test items which did not receive at least a 0.15 validity coefficient were revised and readministered to the same groups of subjects.

The mean and the standard deviation of primary school students deviated far from the other groups of subjects, thus the group of primary school students was eliminated from the experiment.

The following is a brief account of the GTT.

1. Memory of Vocabulary (45 items, 45 points, 10 minutes)—This test is designed to measure the student's memory for English words in relation to equivalent Japanese words.

2. Grammar Comprehension (15 items, 60 points, 17 minutes)—This part attempts to measure the grammatical sensitivity and the inductive ability of the student. The student

is asked to discover grammatical rules in a certain context and apply them to novel situations.

3. Intonation Patterns (15 items, 30 points, 5 minutes)—This test is to measure how rapidly the student comes to correctly understand the intonation patterns of English. The examinee is given practice studying the intonation patterns before answering the test question.

4. Verbal Mimicry (15 items, 30 points, 5 minutes)—This tests the student's ability to reproduce spoken utterances. The student will hear words spoken in the Japanese phonetic system and is to identify them from a choice of printed words.

5. Memory Store (25 items, 25 points, 3 minutes)—This test measures the student's memory for foreign words. The student is asked to recall 25 foreign words which had already been presented in the first part of the test.

The five independent tests can be analyzed into several factors which they are intended to measure. The first and fifth tests measure "memory". The second tests measures the student's ability to analyze, analogize, and apply grammatical knowledge. The third and fourth tests measure aural and oral skills.

The distribution of scores based on the above analysis is as follows.

1. Memory Ability (Subtests 1, 5)—70 points
2. Grammatical Knowledge (Subtest 2)—60 points
3. Aural and Oral Skills (Subtests 3 & 4)—60 points

Thus, an individual can be diagnosed on the basis of this breakdown. For example, if the student scores poorly in category 2, Grammatical Knowledge, he will probably experience some difficulty in handling the grammatical aspects of English.

### An Evaluation of the GTT

The following table shows the relationship between the GTT scores and the teachers' ratings which were made one year after the subjects had taken the GTT.

**TABLE VI**  
THE PROPORTION OF THE GTT SCORES TO THE  
TEACHER'S RATINGS OF HIS STUDENTS' ENGLISH  
PROFICIENCY AT THE END OF THE ACADEMIC  
YEAR AFTER ONE YEAR'S LAPSE<sup>(13)</sup>

The GTT Scores	Teacher's Ratings		
	A or B	C	D or E
Over 128 points	56%	33%	11%
80-127 points	46%	35%	19%
0-89 points	0%	29%	71%

Sample=The Third-Year Male Students of A Junior High School  
N=69

The first column in the table reads as follows: the proportion of the subjects who re-

ceived over 128 points to 56 percent of the subjects who obtained either A or B on the teacher's rating.

**TABLE VII**  
THE PROPORTION OF THE GTT SCORES TO THE  
TEACHER'S RATINGS OF HIS STUDENTS' ENGLISH  
PROFICIENCY AT THE END OF THE ACADEMIC  
YEAR AFTER ONE YEAR'S LAPSE<sup>(14)</sup>

The GTT Scores	Teacher's Ratings		
	A or B	C	D or E
Over 131 points	100%	0%	0%
89-130 points	49%	36%	15%
0-88 points	0%	43%	57%

Sample=The Third-Year Female Students of A Junior High School N=56

From the table it is clear that all those who obtained over 131 points on the GTT received either A or B on the teacher's rating. From both tables one can see that the GTT has predictive validity, which is the most important condition for any aptitude test to meet.

The following table shows the validity coefficients (signified as r) computed by correlating the scores of each part of the GTT with the scores of the Standardized Proficiency Test (Criterion).

**TABLE VIII**  
THE CORRELATION OF THE SCORES OF EACH PART OF  
THE GTT WITH THE SPT SCORES<sup>(15)</sup>

The Total of the GTT Scores with the SPT	r	.69
I (Memory Ability) with the SPT	r	.66
II (Grammatical Knowledge) with the SPT	r	.56
III (Aural and Oral Skills) with the SPT	r	.64

Sample=The Third-Year Students of C Junior High School N=162

Among the three parts of the GTT, the first part which is Memory Ability correlates best with the SPT scores (though only slightly better than the other two), suggesting that memory ability seems to be the most influential factor concerning one's English proficiency.

The reliability coefficients of the GTT turned out to be 0.75 (computed by Retest Method) which may be judged as fairly satisfactory for this type of test.

#### A Comparison of the GTT with the MLAT and LAB

After the factor analysis of the foregoing aptitude tests, it became apparent that the

GTT and the MLAT had many characteristics in common. The breakdown of both tests and the LAB is shown below.

A. GTT	B. MLAT	C. LAB
Memory of Vocabulary	Number Learning	Major Subjects
Grammar Comprehension	Phonetic Script	Interest
Intonation Patterns	Spelling Clues	Vocabulary Analysis
Verbal Mimicry	Words in Sentences	Language Analysis
Memory Store	Paired Associates	Sound-Symbol Association

The first test of the GTT and the fifth of the MLAT seem to measure the same ability in that the student is presented foreign words and their equivalents in his native language and is required to remember these foreign words.

The second part of the GTT and the fourth part of the MLAT seem to demand the same task requiring the examinee to identify grammatical rules from a certain context and apply them to new situations.

The third test of the GTT seems to be a unique subtest, whose equivalent is not found either in the MLAT and LAB.

The fourth test of the GTT seems to present nearly the same task as the second test of the MLAT and the sixth test of the LAB in that all three tests ask the subject to listen to sounds and associate them with printed symbols.

Finally, the task of the fifth part of the GTT seems to correspond with the first part of the MLAT. Both tests (GTT and MLAT) attempt to measure the student's memory. In the fifth part of the GTT, the student is to recall a previously learned foreign language vocabulary, while the student in the first part of the MLAT is asked to write numbers after hearing their verbal equivalents in the target language. In the latter test the examinee is presented numbers and their verbal equivalents in foreign language and given practice associating these numbers and their equivalent words in this foreign language, prior to the actual test.

### **Conclusion**

1. Theoretically, an aptitude test should assess the degree of success in one's future performance in language skills: how well he is likely to do in learning a foreign language. Provided that this definition for the aptitude test is valid, the test should be based on the factors which will ultimately uncover the student's hidden competence in the four skills of his target language. It follows, then, that the factor such as I. Q. or marks in one's native language may well be used as a secondary factor on which the aptitude test is based. And this was already evidenced in Table 1 which clearly showed the inferiority of both I. Q. and marks in the subjects' native language (English) to other methods in predicting his future performance in foreign language learning.

2. The above discussion leads us to the next question: how we can increase the validity coefficients. Put in simpler terms, the higher the correlation, the less likely are the

students put in classes for which they are not well suited. One can clearly see in Table 1 that when the scores of the aptitude test and the average marks of the students' chief subjects are jointly used as a predictor of his success in learning foreign language, the correlation figure rose to .72, which is the highest among the five predictors and thus the most accurate one.

The other method to increase the correlation would most likely be to increase the number of the criterion which is to be correlated with the predictor. The following table indicates that the correlation index rose to the highest when three criterions combined were used.

**TABLE IX**  
THE CORRELATION BETWEEN THE GTT SCORES AND THE SCORES OF  
THREE DIFFERENT CRITERIONS<sup>(16)</sup>

Subjects	N	The Number of Criterion		
		1	2	3
Junior High School—2nd Grade	131	.40 (SPT)	.46 (+TR)	.54 (+AT)
Senior High School—3rd Grade	176	.50 (SPT)	.49 (+TR)	.51 (+AT)
English Conversation Course for Adults	91	.25 (TR)	.49 (+AT)	.60 (+AT)
Intensive English Course	72	.40 (SPT)	.43 (+TR)	.62 (+AT)

SPT=Standardized Proficiency Test

TR=Teacher's Rating

AT=Anonymous Test (This is either a standardized or a teacher-made test, or both)

3. Clarke (1980) reports the finding that the scores of the grammar part (the fourth part in MLAT) correlated significantly with the achievement test scores of Japanese and German which had been taken by American college students. This confirms Carroll's (1958) observation that English grammar plays a significant role in predicting one's success in foreign language learning. On the other hand, Murakami (1973) found that the scores testing rote memorization correlated most highly and grammatical knowledge next highly with the Standardized Proficiency Test scores.

It may be a little hasty to draw any conclusive statements from these findings since the bases on which the MLAT and the GTT are constructed are not entirely the same; particularly the factor of the difference of the two populations tested in both experiments can not be overlooked. Nevertheless it will be worthwhile to keep on investigating how the factors of rote memorization and grammatical knowledge influence one's aptitude in foreign language learning.

4. An interesting and perhaps a significant question to be asked will be: how much influence will the factors of one's interest and motivation have on his foreign language learning? Only the LAB, one of the three aptitude tests dealt with in this paper, included

the factor of the testees' interest or motivation (the second subtest of the LAB), but it provided no statistical data on the validity nor on the reliability of this part. Only a few studies (Oller et al., 1980; Johnson et al., 1980) have appeared in print on this topic. Contrary to our expectations, the results of these studies seemed to be negative in that attitudinal factors (interest and motivation) did not contribute significantly to attained language proficiency. Further studies on this issue are anticipated.

5. As was discussed earlier in the paper, the question remains to be solved as to how we can predict one's achievement (eventually lead to proficiency) in expressive skills of a foreign language. Before constructing a valid aptitude test to successfully predict one's expressive skills, it is of urgent need to establish a valid criterion. Hence, it will be essential to ask ourselves: what factors constitute one's proficiency in speaking and writing skill. It is easy to assume that too many variables are involved in assessing one's proficiency in expressive skills. Even if the theoretical framework is established, the problem of how to maintain objectivity in scoring one's subjective performance must be solved.

#### NOTES

- (1) Paul Pimsleur, "Language Aptitude Testing", Language Testing Symposium, ed. by Alan Davies, Oxford University Press, London, 1968, p. 98.
- (2) Ibid., p. 101.
- (3) Ibid., p. 103.
- (4) Ibid., p. 103.
- (5) Ibid., p. 104.
- (6) Ibid., p. 103.
- (7) Ibid., p. 103.
- (8) John B. Carroll, "The Psychology of Language Testing", Language Testing Symposium, ed. by Alan Davies, Oxford University Press, London, 1968, pp. 52-53.
- (9) Robert Lado, "Measurement in English as a Foreign Language with Special Reference to Spanish-Speaking Adults", Unpublished Doctoral Dissertation, University Microfilms Limited, Ann Arbor, Michigan, 1949, pp. 140-141.
- (10) Elisabeth Ingram, "Attainment and Diagnostic Testing", Language Testing Symposium, ed. by Alan Davies, Oxford University Press, London, 1968, p. 73.
- (11) Paul Pimsleur, op. cit., p. 105.
- (12) Fe R. Dacanay and J. Donald Bowen, ed. Techniques and Procedures in Second Language Teaching, Alemar-Phoenix Publishing House, Inc., Quezon City, Philippines, p. 451.
- (13) Ken Murakami, "Foreign Language Aptitude Test (GTT) for Japanese", The English Teachers' Magazine, 22 (July, 1973) 86.
- (14) Ibid., p. 86.
- (15) Ibid., p. 86.
- (16) Ibid., p. 84.

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