

Foreign Language Aptitude in Foreign Language Learning

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Preface

The fact of individual differences in language learning performance has been a perennial concern of foreign language (FL) teachers. Though a considerable amount of time and effort has been put in, as evidenced by the professional literature, many factors as to what determines the slower and the more advanced in foreign language learning remain to be identified. Experienced teachers would agree that no individual learner matches another in the learning strategies one uses in the process of learning the language being taught. Identified FL aptitude would be of potential benefit to resourceful teachers in devising teaching strategies for tackling the differences in learning characteristic of various learners. It is possible that some psychological predisposition or aptitude within the FL learner determines the frame for language learning and that a knowledge of this psychological construct as a whole will equip FL teachers with a means useful not only for predicting and diagnosing each learner's tendencies but also to individualize instruction. Thus teachers might attend fully to their learners' strong as well as not so strong points in specific language skills. Individualized teaching on the basis of 'aptitude-treatment interaction' could help teachers develop learner internal resources to the full extent and in ways most suited for learners' learning styles.

Evidence from recent developments in FL education research has shown that the study of FL aptitude cannot be conducted independently of other factors. The questions raised embrace issues posed by theories and hypotheses advanced in various fields of research. We now realize that we

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cannot get a deeper understanding of FL aptitude unless we try to put it in its true perspective and look at it from different angles: these are, (1) linguistic functions or capabilities of human brain-hemispheres; (2) learner cognitive style characteristics and locus of control orientation; (3) different approaches among learners to the acquisition of language such as 'data gatherers' vs. 'rule learners' or 'synthetic learners' vs. 'analytic learners,' and (4) attempts to construct FL aptitude test batteries based on factor-analytic studies of FL learning abilities.

Having already studied and discussed some of the problems related to the first three areas elsewhere, we will, in this present paper, focus on the fourth of these perspectives. This paper is first concerned with some of the basic issues of FL aptitude and in chapter II takes a historical overview of FL aptitude testing followed by the analysis of the aptitude constituents reported by two groups of researchers; the paper will examine the exact nature of the FL abilities as the possible determinants of success or failure in FL learning. In chapter III ways of using and applying information on FL aptitude test outcomes to FL teaching/learning situations are discussed. Chapter IV considers steps toward more effective FL aptitude tests and some problems for future research on FL aptitude.

1 What is Foreign Language Aptitude ?

Various factors supposedly contribute to individual differences in FL acquisition. They stretch over a wide range from human factors on the parts of both student and teacher to realistic ones connected with socio-cultural and socio-linguistic circumstances in which the student finds himself; other factors include methodologies, curriculum materials, and FL class structures. These factors all are apparently entwined with each other, having complicated influence on the ramification of individual variation in the ability to learn and use foreign languages. With the student factor alone, we readily notice the fact that no two of our FL learners will be the same in their academic performance all the time, even when they are taught by the same method with the same text by the same teacher over the same period of time. An investigation carried out in the United States in 1964 reports that about 10 to 20% of all the students studying a foreign language at high school and college level suffer from a frustrating lack of ability at learning a foreign language (Pimsleur *et al.* 1964 : 115). The problem of these students, conveniently called 'under-achievers,' gave rise to renewed attention to the individual variation in FL learning.

There has long been a growing awareness of the importance of understanding the very origin of the individual differences in FL proficiency. The assumption is that each individual has his or her own ability or what is called aptitude for FL learning which seems to function consistently

regardless of any teaching/learning situations. Those concerned with the FL profession, including researchers, have always been interested in understanding those aspects of FL aptitude which display a consistent pattern of characteristics and determine high or low achievement in language learning.

To gain a general idea of what aptitude for FL learning entails, we would adopt an approach which addresses three questions (1) the existence of FL aptitude, (2) its definition and (3) the components which constitute FL aptitude.

1.1. The Existence of FL Aptitude

Aptitude in its general sense means a certain psychological characteristic (or characteristics) favoring our acquisition of some mental, physical and artistic abilities or skills like musical skills, and ability to learn a specific task without previous knowledge. It is probably because aptitude is generally considered not to include such factors as interest, experiences and efforts that a word 'gift' or 'talent' is often substituted for aptitude, especially in scholastic and artistic circles. As concerns the existence and nature of aptitude for learning a foreign language, it seems that there is no clear answer to the question. Titone (1973 : 110) states:

Those who deny that there exists a special positive ability favouring language learning generally tend to conceive of it as a simple and indivisible factor. On the contrary, those who have come to see in it something specific and distinct are the more convinced that it amounts to a group of factors, whose variables and value remain to be further defined.

Scientific study on FL aptitude does not have an extensive history. They have been carried out off and on since the beginning of this century, and systematically since the 1920s. Historical literature on FL aptitude study indicates that the view based on the former theory — aptitude as "a simple and indivisible factor" — was prevalent in the early days of FL aptitude study in the 1920s and 1930s. In the 1920s as part of the project of 'the Modern Language Study,' large-scale experiments and research studies on FL aptitude were undertaken for the first time on a multi-factorial basis from various viewpoints such as the learner's verbal knowledge of his mother tongue, scholastic performance in a foreign language in school, general intelligence, average school marks, memory, sex differences, pitch discrimination, study habit, motivation, attitudes, and personality factor. The results of these studies, however, failed to provide any clear-cut answer to the question of the existence of special aptitude for FL learning, due mainly to the insufficient theory and knowledge concerning language aptitude in those days. After the Modern Language Study there inevitably came out more views negative to the existence of FL aptitude. Kaulfers (1951 : 514), for instance,

takes the following position:

In retrospect, the cause of failure is clearly recognizable. All experiments with possible bases for prediction — whether memory-span for digits or ability to handle abstract verbal concepts — assumed the existence of a specific language talent or linguistic aptitude. It is precisely here that the locus of the difficulty probably lay. Since language is the one ability most clearly distinguishing man from an animal, and often acquired in surprising degree even by imbeciles, the assumption of a specific language talent, apart from man's general ability to learn, is obviously a pretentious postulate. To say that a person has no language talent is almost the same as saying that he has no capacity for being a human being.

We can find many other reports in the same vein as Kaulfer's, including those by Warshaw(1931 : 253-261), Todd(1928 : 7-10), Morgan(1953), and others. They all share one point in common: they look upon aptitude for FL learning as something simple and indivisible that is independent of any other element.

There was a significant turning point in the view of FL education during the Second World War: after the end of the War the view that FL teaching should aim to impart all-round skills to understand, read, write, and speak with a perception of social and cultural backgrounds reflected in the language gradually became dominant, replacing the traditional one that a fundamental purpose of FL teaching is to help the learner to read and appreciate FL literature through grammar learning and translation, through which the learner is naturally supposed to grow intellectually. The notion of a foreign language as a medium of communication with a code of signs to express one's thoughts and emotions encouraged the idea that some abilities beyond intelligence tests are required of the learner to learn these language skills, and that IQ is no longer regarded as the decisive prognostic factor that it used to be in FL learning, though its influence on FL achievement should not be underestimated. Carroll(1960 : 13) states in a report:

Extensive studies of my own have shown considerable individual differences in aptitude for learning foreign languages. This is true of young children as well as adolescents and adults. Even if it should be found that young children learn languages faster than older children, there are many who will have real difficulty. Reports typically say that 10 to 20 per cent of children have special disability for FL learning even under what appear to be excellent learning conditions.

A series of correlational and factor-analytic studies done in the 1950s by Carroll and Sapon showed that there seemed to exist FL aptitude consisting of some abilities relatively independent of each other, including human nervous functions, personality, and sensibility. This was evidently different from the view of FL aptitude as being unitary and indivisible, which had led to

the denial of the existence of aptitude for FL learning before.

Beginning in 1958, when the National Defense Education Act was passed in the United States, systematic research studies on FL aptitude and FL aptitude test development increased and accelerated. It was stipulated in the Act that research and development of tests for the adequate measurement of achievement in modern foreign languages should be supported by a grant from the government. The studies, based on the view of FL aptitude not as a simple and indivisible one, but as a group of factors relatively independent of each other, were carried out on a large scale by professional groups such as Carroll and Sapon, Pimsleur *et al.*, Lambert and Gardner, and so on; Carroll and Sapon conducted a five-year study(1953-1958) on FL aptitude with about 5,000 subjects including high school and college students, and FL learners in language courses under military and governmental programs. Pimsleur *et al.*, while consulting Carroll and Sapon's work, set about on their own project(1958-1965) to identify special abilities supposedly composing FL aptitude. Their seven-year study was based on a pre-test population of high school and college students in FL courses. Lambert and Gardner, on the other hand, carried out the research on FL aptitude from the bilingual point of view mainly in Canada with high school students as subjects. These and other ambitious research studies have mostly corroborated the popular view that there exist distinct and specific abilities directly related to FL learning and have demonstrated that a set of specific abilities of different nature are involved in the process of FL learning. It is these different abilities which contribute to individual differences in FL performance to a substantial degree.

1.2. Definition of FL Aptitude

As for FL aptitude, Carroll(1965 : 36) says, "language aptitude is a relatively invariant characteristic of the individual, not subject to easy modification by learning, ... and is a relatively stable personal characteristic, one which is made up of various component skills or abilities." Although it is now generally accepted that FL aptitude is a mixture of specific abilities, it is still not certain whether FL aptitude is a product of a special inborn ability or of a capacity developed from previous language experiences, including those of one's mother tongue in the very early years of life. The latter possibility — FL aptitude is learned, not instinctive — would suggest that FL aptitude is susceptible to change over time through proper training. FL aptitude, as we will see in chapter IV, has not been clarified in operational terms as yet, leaving us in doubt as to whether it is either genetic or mutable, that is, alterable or not through exposure to learning situations sensitive to patterns of personal development of the learner as a dynamic organism.

A comparison of the two definitions by Carroll and Pimsleur — two of the most important

studies on FL aptitude and FL aptitude testing — may help us to understand what FL aptitude represents in the profession. Carroll (1963 : 1088) breaks down FL aptitude into four distinct abilities: (a) phonetic coding, (b) grammatical sensitivity, (c) rote memorization ability, (d) inductive language learning ability. Pimsleur's (1966 : 3) definition of what constitutes FL aptitude is as follows: (1) verbal intelligence, (2) motivation, (3) auditory ability. Obviously there is an interesting contrast between the two regarding operational as well as constructional definitions. Carroll seems to place more emphasis on innate abilities and look on FL aptitude as something relatively stable and beyond manipulation, while Pimsleur, though he thinks much of its genetic abilities and characteristics, pays more attention to the possibility that FL aptitude may depend on prior learning experiences, and that a profile of FL aptitude variables may possibly change in the learner as his or her language learning experiences accumulate.

Though opinions differ at present, as was pointed out before, as to whether abilities and characteristics of FL aptitude are either innate or acquired, it may be safely said that FL aptitude is defined by two concentric spheres: the basic or inner sphere consists of genetic or innate abilities and characteristics necessary to language learning in general, and the second sphere, which is organized outside of the internal sphere, consists of abilities and skills acquired through amassed experiences in language use in a day to day communication situation in which one has been placed since the very beginning of one's linguistic life¹⁾.

1.3. The Factors Composing FL Aptitude

To get a better idea of what is considered to be FL aptitude, we would like to explore further the implications of descriptions by Carroll, Pimsleur, Spolsky, and Mackey, which deserve our particular attention.

As part of the Harvard Language Aptitude Project, Carroll completed the Modern Language Aptitude Test (MLAT) together with Sapon in 1959. The MLAT Manual (Carroll 1963 : 1088) reports that FL aptitude consists of the following four identifiable abilities with extraneous variables controlled as much as possible:

- (a) phonetic coding — the ability to code auditory phonetic material in such a way that this material can be recognized, identified, and remembered over something longer than a few seconds
- (b) grammatical sensitivity — the ability to recognize the grammatical functions of words in sentence contexts.
- (c) rote memorization ability — the ability to learn a large number of associations in a relatively short time.
- (d) inductive language learning ability — the ability to infer linguistic forms, rules, and patterns from new linguistic content itself with a minimum of supervision or guidance.

In a psychological report by Carroll(1973 : 5-14) on language learning, it is suggested that the inductive language learning ability is not related to FL learning to any substantial extent, and he omitted this ability from the original four factors. Of the four it is the phonetic coding that is considered by Carroll (1965 : 35-36) to be the most significant for mastering a foreign language.

Pimsleur *et al.* (1966 : 3) are partly but significantly different in their conclusion on FL aptitude constituents from Carroll and Sapon. The following three factors are reported to constitute FL aptitude in their work:

- (1) verbal intelligence, that is, the knowledge of words and the ability to reason analytically in using verbal materials;
- (2) motivation, an expression of interest in studying a modern foreign language; and
- (3) auditory ability, the ability to receive and process information through the ear.

The results of the joint investigation carried out in 1964 brought Pimsleur *et al.* to the unequivocal conclusion in regard to their three factors that it is possible to distinguish under-achievers from normal-achievers by measuring the auditory ability, and that achievement in FL learning has much higher correlations with the score on auditory ability than with the score on verbal knowledge and motivation respectively(Pimsleur *et al.* 1964 : 135).

Spolsky(1969 : 271-283), on the basis of the studies of FL aptitude by Carroll and Pimsleur, posits three abilities as the constituents of FL aptitude, though he does not seem wholly satisfied with his analysis of FL aptitude. They are:

- ... a learner's ability to remember foreign language material, his ability to handle phonetic aspects of foreign language mastery, and his ability to make grammatical analysis of sentences and to find elements with analogous functions in English sentences.

It seems that Spolsky has a view similar to that of Carroll concerning FL aptitude in that he does not try to measure any degree of motivation or other non-linguistic elements like attitudinal factors.

As a final example, we would like to take up what Mackey(1965 : 326) has to say about the factors composing FL aptitude. The constituent factors which Mackey presumes to be at work in the learning process of foreign languages are:

- (1) memory, (2) imitative ability, (3) intelligence,
- (4) personality, and (5) background

Obviously Mackey takes a stand that makes much of the learner's personality and linguistic background, in addition to linguistic abilities. These five factors provided by Mackey, however, are not altogether satisfactory, since it is now commonly agreed through past experimental studies that an intelligence quotient appears to have a good predictive value for success in FL learning, but its correlation with successful performance in language learning is not high enough to be taken as indispensable for predicting achievement in FL learning. Another point is that mere imitation of foreign sounds with no aural image evoked does not mean decoding or encoding sounds as symbols for ideas; that is, mere ability to discriminate and imitate a group of foreign sounds does not always assure that the learner is able to associate speech with meaning. It can be questioned as to whether this ability is presupposed as one of the critical factors constructing FL aptitude.

Let us here touch on something common and familiar but essential to FL learning, apart from those abstract abilities and characteristics described by the above four examples. One of the things generally felt as possible determinants among teachers is 'internally-oriented tendency' in the learner that plays a critical part in keeping him intent on learning foreign languages. An arduous task of language learning requires endurance, perseverance and concentration of the learner; all of these are aspects of internally-oriented students, *i. e.* those who tend to be high in achievement motivation and work persistently toward their goals. A second is that the learner should be sensitive not only to the phonemic differences in sound feature between the target language and his mother tongue, but to the way foreign sounds are pronounced naturally in connected utterances as well. The learner is required to renovate his ingrained sound habits of the mother tongue so that he comes to get aural skills in understanding ideas and thoughts conveyed by contrastive rhythm and intonation closely connected with meaning. This is truly the case with the Japanese-English situations where the English language is the target language, due to the complete difference in rhythmic structures between the two: the former is referred to as isosyllabism as opposed to isochronism for the latter. Stress in English rhythm has a phonemic role and provides semantic information in speech, while the rhythm of Japanese largely depends on nearly the equal duration of each syllable in a pause-group of words or an utterance and has very little in common with that of English. The learner should be always reminded that sound features including rhythm and melody vary from language to language (Brown 1978 : 43), and that contrastive phonological characteristics of a foreign language can be one of the roadblocks for the learner in the effort to learn to produce and comprehend spoken messages in the language he is studying. Finally, the ability to draw relevant inferences has a great effect on the learning progress of the learner; that is, the ability to deduce what a word or a phrase means from the surrounding context. This ability will be of much help for the learner to reconstruct and assimilate in his favor the organization of a discourse in

which main ideas are strung together with subordinate and other related details into a logical thread.

1.4. Summary

It is true that research studies on FL aptitude especially over the past about 30 years have shed light on what constitutes FL aptitude, but the results and findings are still not satisfactory. Neither of the two aptitude tests — the MLAT and the LAB (see p. 176)— tries to measure the ability to produce foreign sentences. Both mostly cater to testing the receptive abilities, listening and reading, including vocabulary. Efficient, effective, and accurate evaluation of production skills is one of the problems facing builders of FL aptitude tests. One of the difficulties in predicting potentials for the expressive skills is the serious lack of universally accepted criterion by which any phases of FL competence for production can be properly assessed.

It should also be remembered that an idea as to the variables composing FL aptitude is greatly contingent on what language skills and what areas of language are emphasized in a language course. Goals of FL instruction must be defined before we administer aptitude tests to our students. Need of FL aptitude tests with real predictive power of the learner's aptitude in all the language skills is now urgent in order to meet various goals of FL courses. The FL aptitude tests developed up to now are, in this sense again, still not perfect. This problem will be discussed in detail in section two, chapter IV.

2 Historical Background of the Study of FL Aptitude

Studies on prediction of success or failure in FL learning has been carried out since early in this century in the attempt to increase teaching/learning efficiency in reaching goals of FL classrooms. Prediction or prognosis has been regarded as a panacea for awkward problems in the profession, and possibility of prediction of FL achievement and its application in FL teaching/learning situations have always intrigued FL teachers: if the information about FL learners' different learning styles and strategies were obtained in advance through proper tools like language prognosis tests, it would be possible for teachers to identify with accuracy their learners' probable strong points and not so strong points in FL learning, and this would help teachers to design adequate treatment for learners, especially for those poor or low in aptitude in certain learning components.

Study on FL aptitude, therefore, aims mainly to seek for means to make it possible for us to predict the degree of success in the classroom that the learner will accomplish in a given period of

time, on the assumption that the predictive details of the learner's FL aptitude can be turned to advantage. In this chapter we will review the way research studies of FL aptitude have been conducted since the 1920s to understand historical developments in which the nature of FL aptitude has gradually been clarified.

2.1. Before World War II

Experimental literature concerning variables on the part of the student responsible for either accelerating or hindering his efforts to learn a foreign language shows that research on aptitude for a foreign language got started as early as at the turn of this century and has been carried out systematically since the 1920s. In 1931 Warshaw(1931 : 253-261), a psychologist, raised four questions about prediction in FL learning:

- (1) is there a general intelligence level below which success in modern language study is improbable?
- (2) is there a general scholarship level below which success is doubtful?
- (3) can special abilities and disabilities involved in learning a foreign language be determined and tested so as to predict future success in this subject?
- (4) can achievement and progress at the end of a semester's work or a year's work be measured so accurately as to predict whether the pupil has the capacity to profit from further work?

These questions were the central concerns under discussion made by the investigators and researchers at the time. In the early days of the study on FL aptitude, such things as ability in the native language, general mental ability, scores on school examinations in a foreign language, were often talked about with interest. Due to the lack of theory and knowledge concerning aptitude for FL learning, these were taken as clues to identifying high-achievers and under-achievers. In 1922 Briggs(1922 : 386-392), having analyzed ability to learn a foreign language, had it narrowed down to three factors below:

- (1) memorizing a vocabulary, (2) memorizing paradigms,
- (3) translating and doing other activities.

The sub-tests to measure these factors, according to Briggs, are as follows:

free association, extent of vocabulary, memory of nonsense syllables, analogies, completion test, substitution, opposition.

Evidently in his sub-tests much emphasis is placed on reading knowledge and grammar with no account taken of oral-aural skills. It is not for no reason that his prognosis test is now seen as nothing but an intelligence test in disguise. Jordan(1925 : 541-546), in 1925, concluded that students below an IQ of 100 would have poor chance for success in FL courses on the ground that scores on IQ tests had higher correlations with success in FL learning than ability in the native language did, and commented that special guidance should be made to meet the needs of those learners with low scores on IQ tests. During the 1920s in-depth investigations were encouraged to clarify whether or not there is any such entity as aptitude for learning foreign languages. The Modern Language Study(1923?—1928) in the States was the first comprehensive project on issues in the field of FL education. These investigations, however, failed to give any definite answer to the question about the existence of special aptitude in FL learning(Carroll 1953 : 193-195). For instance, in one of the studies carried out in 1928 under this Project, Todd(1928 : 7-10) listed the following elements as having to do with FL learning:

memory capacity, comprehension, extent of English vocabulary, range of general information, intelligence level.

The conclusion in his report did not present any positive or persuasive argument on a talent distinct for language learning:

... the high correlation between general intelligence and our battery of tests ... would seem to indicate that linguistic achievement has broad connection with the personality and thus falls far short of being specific enough to find a place among the talents.

As to the question of general mental ability or IQ in FL learning, Kaulfers (Coleman *et al.* 1927-1932 : 233) reviewed educational literature on intelligence as one of the factors affecting FL achievement and concluded that general mental ability is not so influential in deciding success and failure in FL learning as is generally expected, though of course there are cases where it is one of the contributing factors correlating high with FL achievement. His view on intelligence in FL learning seems compatible with our empirical evidence and apparently holds good, if we take it that verbal ability is simply one of the elements constituting general mental capacity or IQ and that the way it relates with the other elements of general intelligence varies from learner to learner. On the problem of the dubious correlation between IQ and success in FL learning, Halsall(1969 : 19) conjectured as follows:

The reason for the relatively low correlation of IQ scores with success in language learning may be the complexity of whatever it is that we mean by intelligence. Most IQ tests measure several types of ability; for example, reasoning, memory and verbal ability. Some of the abilities they measure are related to success in foreign languages, some are not, ... The influence of those which are not so related is sufficient to depress the correlation of intelligence, as measured by IQ tests, with success in language learning.

In the latter half of the 1920s newly developed prognosis tests in modern languages came into use and started to replace IQ tests. Among them are Stoddard's in 1925, Hunt's and Henmon's in 1929, Symonds's in 1930. Correlations of these aptitude tests with performance on modern foreign languages were reported to be higher than IQ tests by Seague(1938 : 632-640) and some other researchers in 1938. Cited below is the description of the Symonds's test, which was highly regarded as one of the prominent prognosis tests of the day(Salomon 1954 : 299-303):

Description of form A:

- Test 1 English inflection
- Test 2 Word translation(English to Esperanto)
- Test 3 Sentence translation(Esperanto to English)
- Test 4 Related words

Description of form B:

- Test 1 Word translation
- Test 2 Artificial language
- Test 3 Sentence translation(English to Esperanto)
- Test 4 Formation of parts of speech in English

No doubt FL aptitude tests developed during this period, including the Symonds's, are mainly concerned with FL courses emphasizing graphic skills, that is, grammar, lexis, and translation work, and paid little or no attention to aural-oral skills. They all reflect the general tendency of FL instruction of those days. Naturally they lacked broader validity. This is manifest from the fact that they were good predictors of success in traditional grammar-translation courses, whereas they turned out to be far less predictive of achievement in language courses which placed more emphasis on aural-oral skills of the language to be learned. The aptitude tests generally used in those days to predict achievement in foreign languages mostly measure students' ability to handle grammatical rules of a second language in their native tongue. They still are more or less intelligence tests on the analytical manipulation of the written language.

Further studies on FL aptitude kept on going thereafter groping for data, for example, on correlations between IQ scores and skills of aural comprehension(Greenberg 1937-1942 : 374, Agard and Dunkel 1948), sex factor in FL learning(Kaulfers, Coleman *et al.* 1927-1932 : 233),

relations between chronological age and achievement in FL learning (Finch and Oliver 1935 : 52-58), correlations of ability in foreign languages with verbal knowledge of the mother tongue (Kaulfers, Coleman *et al.* 1927-1932 : 233), correlations between grade-point or scholastic average and success in FL learning (Tallent 1938 : 591-594). However, their resultant findings were not necessarily in line with each other and were found insufficient to answer the question as to whether there was some ability specific to FL acquisition.

In the latter half of the 1930s there appeared opinions from a different perspective that the best instrument or scale for prediction of success in FL learning was a combination of several factors. The most successful combination for prediction was, it is reported by Michel (1936 : 275-287), scores on IQ tests and aptitude tests plus grade point average. According to another experiment, a chunk of the verbal ability in the mother tongue, IQ, and average school marks was found the best criterion for predicting FL achievement (Schwartz 1937-1942). Another new wind of change began to sweep through the area of gauging aural-oral proficiency : Carroll constructed tentative tests for oral production ability in the early 1940s, followed by aural comprehension tests by Agard and Dunkel in the late 1940s. These were something of a pioneering effort, showing the way for setting up and standardizing more valid and reliable aptitude tests for speech communication skills, though difficulties in measuring aural-oral proficiency still remained, preventing verbal testing from being formulated as proper measurements of achievement in the spoken language.

2.2. After World War II

In the 1940s, especially after the War, when the pendulum of FL education gradually swung in the direction of aural-oral functional language courses, more work was done to measure vocal aspects of FL attainment, despite theoretical and practical complications. As early as in 1949 an aural-oral aptitude test for foreign languages was made available by Bottke (1949 : 705-709). The purpose of the test was to select students for the aural-oral type of language training. The test items included were as follows:

inference understanding, sound differentiation, assimilation and understanding of vocabulary in sentences, vowel timbre, word fluency, general hearing, ability to mimic, transfer of rules of pronunciation to unknown material.

According to Bottke, parts 1 and 3 are for ability to understand, parts 2, 4, and 6 for listening comprehension, parts 5, 7, and 8 for speaking ability. We see some of these items still involve some additional elements; part 8 also tests a purely mental ability to apply rules of pronunciation to unknown material. Apparently the Bottke's test was used only for experimentation, not so much for

general practice.

The year of 1958 was the turning point in the history of FL aptitude testing. The National Defense Education Act passed in the States in that year provided a grant for the development of tests for the measurements of achievement in modern foreign languages, stimulating full-scale, systematic studies of FL aptitude. Among typical and ambitious FL aptitude tests thus far known are the following: Carroll and Sapon's Modern Language Aptitude Test (MLAT) in 1959, and Pimsleur's Language Aptitude Battery (LAB) in 1966. Both of them owe their success greatly to recent academic advances in psycholinguistics and preliminary experimentation in FL instruction. These two FL aptitude tests are now often used not only in both public and private schools and colleges, but also in government and military intensive language courses.

2.3. The Modern Language Aptitude Test and the Language Aptitude Battery

2.3.1. The MLAT

2.3.1.1. History of the MLAT

Carroll and Sapon's Modern Language Aptitude Test is the product of a five-year research study (1953-1958) carried out under the Harvard Language Aptitude Project. The main objective of the research study was the development of an FL aptitude test that would predict success in FL learning for students who are supposed to have native or near-native fluency in English. In the course of this research, preliminary and experimental tests in various forms were administered to about five thousand people to determine which sample factors would or would not contribute toward learning a foreign language and which ones could be safely omitted. Methodologically such statistical techniques as factor-analysis and multiple-correlation analysis were used in the experiments. The pre-tests population of about five thousand included approximately twelve hundred high school students, twenty-five hundred college students, and thirteen hundred trainees learning foreign languages in various FL training courses under military and government auspices. In 1958 six factors, tentative as they were, were identified by Carroll and Sapon as components of FL aptitude through a series of experiments where extremely high battery validity had been obtained. On one of the experiments in a five-day intensive trial course in Mandarin Chinese for Air Force personnel Carroll and Sapon (1954 : 492-493) report that four tests of the experimental battery yielded a multiple correlation of .75. Cross validation on another sample (the June Sample) yielded a multiple correlation of .77, but an improved group of four tests yielded the highest predictive validity correlation of .84. The six factors identified in the analysis are interpreted by Carroll as follows:

Factor A: Verbal Knowledge. Knowledge of the vocabulary and structure of one's native language.

Factor B: Linguistic Interest(?). This is tentatively identified as an increment of test performance ascribable to a specific motivation, interest, or facility with respect to linguistic materials.

Factor C: Associative Memory. This is probably the factor usually identified as Factor M.

Factor D: Sound-Symbol Association. This factor is conceived as representing the extent to which the individual possesses a knowledge of sound-symbol correspondences in language, or can learn a novel set of such correspondences.

Factor E: Inductive Language Learning Ability. This is the ability to induce the grammatical rules and properties of a language when suitable learning materials are presented. It is uncertain whether this factor can be cross-identified with the inductive reasoning factors found by other investigators.

Factor F: Grammatical Sensitivity or Syntactical Fluency. Sensitivity to the functions of words in sentences and facility in producing syntactically coherent verbal materials.

... all of the above factors ... play a significant role in foreign language learning. Factors B, C, and E are probably more important than Factors A, D, and F, however.

Later on, the rearrangement was made by Carroll of these six factors into the four, which were finally classified into the three factors in 1973. Excluded was inductive language learning ability among the four factors: phonetic coding, grammatical sensitivity, rote memorization ability, and inductive language learning ability. As the result of the five-year research study with various verbal experiments, the present commercial version of the MLAT came on the market in 1959.

2.3.1.2. Description of the MLAT

The MLAT is supposed to be in effective use for groups from the ninth grade on, including college students and adults. There are two ways of administering the MLAT: (1) the Complete Test is administered in about sixty to seventy minutes by giving all the five tests of the MLAT; (2) the Short Form requires about thirty minutes to administer. The Short Form is made up of the last three parts of the MLAT, *i. e.* the reading tests only. The MLAT is complete in its composition with the following five subtests (Carroll 1959 : 3):

Part I. Number Learning. This seems to measure one aspect of the memory component of FL aptitude, but the part also has a fairly large specific variance, which one might guess to be a special "auditory alertness" factor which would play a role in auditory comprehension of a foreign language.

Part II. Phonetic Script. This appears to measure what we have called sound-symbol association ability, that is, the ability to learn correspondences between speech and orthographic symbols. It may also measure a sort of memory for speech sounds, and it tends to correlate highly with the ability to mimic speech sounds and sound combination in foreign languages.

Part III. Spelling Clues. Scores on this part depend to some extent on the student's English vocabulary knowledge. This subtest also measures the same kind of sound-symbol association ability as measured by Part II, Phonetic Script, but to a lesser extent. It is highly speeded.

Part IV. Words in Sentences. This is thought to measure sensitivity to grammatical structure, and may be expected to have particular relevance to the student's ability to handle the grammatical aspects of a foreign language. As yet, it is not known how much scores on this part are a reflection of formal training in grammar; at any rate, no grammatical terminology is involved, so that the scores do not depend upon specific memory for grammatical terminology.

Part V. Paired Associates. This part measures the rote memory aspect of the learning of foreign languages.

As was pointed out before, "inductive language learning ability," one of the abilities once assumed by Carroll to be of crucial relevance to FL aptitude, is not measured by the present version of the MLAT.

2.3.1.3. Validity and Reliability of the MLAT

Both validity and reliability are most important for any kind of tests. The validity of a test relates roughly speaking to effectively measuring what it is intended to measure. Validity coefficients are accessible by correlating the scores on a test with the learner's actual performance in class. The question of reliability, on the other hand, is concerned with how accurate it is as a measuring instrument. Whether a test is reliable or not depends largely on a matter of improved test items. A reliable test is required to produce on any occasion the same or almost identical test results for a particular testee.

The MLAT has a wide range of validity coefficients, depending on the subject samples. According to the MLAT Manual(1959 : 8-12), in the eighteen validity coefficients obtained with the language courses, including French, Spanish, and German for junior and senior high school students, they range from .25 to .78 with the median figure of .53. At the college level, twenty four validity coefficients run from a low coefficient of .13 to a high of .69 with the median coefficient of approximately .47. These validity coefficients show that the MLAT has high general validity in measuring and predicting the abilities in FL learning.

Carroll(1959 : 21-22)suggests in the Manual that the MLAT has approximately equal predictive power for any languages in any type of language courses. And he gives the following reason why his MLAT provides more useful information about prediction than conventional intelligence tests:

Most of the commonly employed intelligence tests measure a number of abilities simultaneously — verbal ability, reasoning ability, memory ability, and others. While a few of

these abilities may be relevant to foreign language success, most are not and their net effect is to depress the correlation of intelligence with foreign language success.

His statement is also a good reply to the question as to why all learners with high scores on intelligence tests are not always successful in FL learning and vice versa. As for the reliability of the five subtests of the MLAT, it is reported in the MLAT Manual that in the data obtained with the students ($N=734$) in the ninth, tenth, and eleventh grade, the range goes from a low of .55 (ninth grade boys) for Part II (phonetic script) to a high of .89 (eleventh grade girls) for Part V (paired associates), and that the median is about .86.

2.3.2. The LAB

2.3.2.1. History of the LAB

In 1966, seven years after the completion of the MLAT, the LAB finally took shape in its present form. The LAB is the product of long-term research investigation which was started in 1958. Pimsleur *et al.* first reviewed all the professional literature referring to the student factor in FL learning that had come out in the preceding thirty years. After thorough reviewing of the literature, the variables found related directly to the student factor were classified under several headings like intelligence, verbal ability, pitch discrimination, order of language study, bilingualism, study habits, motivation and attitudes, personality, and others. In the process Pimsleur (1962 : 160-170) found out that among these variables verbal intelligence, intelligence plus native language (English) verbal ability, and motivation all "account for perhaps 35% of the variance in FL achievement." In 1958 and 1959 continued studies to pinpoint what variable (or variables) might be involved in learning modern foreign languages made it clear that "verbal intelligence and interest (motivation) appeared to be the most important in college FL learning, while reasoning, word fluency, and pitch discrimination made significant but lesser contributions." The conclusions Pimsleur *et al.* (1962 : 15-26) drew from their studies done during these years are as follows:

(a) achievement in a traditional (grammar-reading) language course may be predicted with reasonable validity by a set of tests, each of which taps only one rather precise characteristic of the learner.

(b) nonintellectual characteristics, notably motivation, must be included as well as intellectual ones.

(c) oral and aural achievement is less subject to satisfactory prediction at the present time, probably due to the lack of adequate criterion tests for achievement in these skills.

(d) although better criterion tests will improve prediction somewhat, substantial improvement probably demands the inclusion of entirely new factors as predictors.

(e) among such new factors, the personality of the student and the characteristics of the teacher are those which appear most promising and are most in need of research attention.

These and other studies made it possible for Pimsleur *et al.* to define clearly ingredients of FL aptitude in preparation for the construction of tests effective in predicting success in FL courses.

A battery of tests was administered to secondary school students to correlate the scores on these tests with their school grades in the FL courses. The seven subtests were found as potential measures of FL aptitude through these preliminary experiments (Jakobovits 1970 : 236). They were:

Interest Test I: a series of questions designed to index how eager the student is in studying the language he is taking.

Interest Test II: a series of questions evaluating the student's belief in the general value of FL study.

Linguistic Analysis Test: a fifteen-item test of verbal reasoning in which the students are given a number of forms in an FL and asked to deduce from how other things are said in that language.

Vocabulary Test: a vocabulary richness test as a rough measure of verbal ability.

Pitch Test: a test of auditory discrimination in which the student must distinguish Chinese tones.

Rhymes Test: a test to measure fluency with words.

Sound-Symbol Test: a rapid-fire test in which the student hears a nonsense syllable and must match it with the correct spelling in his booklet.

After reaping the harvest of the research investigations on the question of under-achievement in FL learning that were accomplished in 1962, Pimsleur's Language Aptitude Battery was made available to the public. The measures selected for inclusion in the Battery were: Grade Point Average, Interest I, Vocabulary, Language Analysis, Sound Discrimination, and Sound-Symbol Association (Pimsleur 1966 : 3).

2.3.2.2. Description of the LAB

The LAB researchers including Pimsleur narrowed the field down to the three variables as main contributors to FL aptitude; these were verbal intelligence, motivation or interest, and auditory ability. The Aptitude Battery has six parts intended to measure various aspects of these three variables plus grade-point average (Pimsleur 1966 : 175-186):

Part I: Grade-Point Average (GPA). The examinee enters on the answer sheet his most recent year-end grades in English, mathematics, science, and history (or social studies),

sixteen items, four minutes.

Part II: Interest. The examinee indicates, on a 5-point scale provided on the answer sheet, the degree of his interest in studying a foreign language, eight items, 1½ minutes.

Part III: Vocabulary. A twenty-four item test of English vocabulary knowledge, five minutes.

Part IV: Language Analysis. The examinee is given a number of forms in a foreign language (Kabardian) and their English equivalents. From these, he must conclude how other things are said in this language, fifteen items, twelve minutes.

Part V: Sound Discrimination. The examinee is taught, by tape recording, three words in a foreign language (Ewé); they are similar though not identical in sound. He then hears sentences said in Ewé and must indicate, for each sentence, which of the three words it contains, thirty items, eight minutes.

Part VI: Sound-Symbol. The examinee hears a bisyllabic or trisyllabic English nonsense word. He is to identify, from among four similar-appearing words printed on his answer sheet, the one which was said, twenty-four items, nine minutes.

The Language Aptitude Battery, which takes about thirty-nine minutes to administer, was originally intended for use in grades seven through twelve. As with the Complete Test of the MLAT, a recorded tape is available to give the instruction and test stimuli.

2.3.2.3. Validity and Reliability of the LAB

The LAB Manual (1966 : 7-18) reports that thirty-one validity coefficients extended from a low of .25 to a high of .79 with the median figure .52. The correlational coefficient of .65 with the scores on Cooperative French Test administered to about 200 college students was the only figure available for the LAB at college level. It is reported that the LAB was administered to a group of junior and senior high school students to obtain a correlation between the LAB scores and the students' actual performance in FL class with the result of the validity coefficient of .71. With another group, the coefficient of the scores on the LAB with the scores on the Cooperative Spanish Test was .55.

In 1965 and 1966 the LAB was administered to 1,201 students in the seventh grade, to 979 in the eighth grade, and to 1,765 in the ninth grade. The respective reliability coefficients for Part III through Part VI of the LAB were reported to be .85 for the seventh grade, .89 for the eighth grade, and .89 for the ninth grade. The respective reliability coefficients of the four linguistic parts of the LAB, as administered to a group of 100 junior and senior high school students, are reported as follows: the coefficient for Part III (vocabulary test) was .91, Part IV (language analysis) had the coefficient of .75, Part V (sound discrimination test using the Chinese language which has now been replaced by the Ewé, a West African language) had the reliability coefficient of .73, and Part VI (sound-symbol association) .82.

2.3.3. Predictability of the MLAT and the LAB

Given that scores on the first two subtests of the LAB are left out for statistics, clearly both the MLAT and the LAB have much the same median figures of validity coefficient. This means that both of them have a parallel degree of validity for measuring FL aptitude. As to the question of predictability, it seems that Pimsleur's test is at a distinct advantage over the MLAT in that the former tries to assess the learner's motivation and his grade-point average in addition, neither of which is factored in the latter. Pimsleur(1968: 98-99) says to the effect that the average of marks in chief academic subjects and the scores on the FL aptitude test are both equally accurate in prediction, each having a correlation of .62 with foreign language marks. This may suffice for the reason why the LAB is the better predictor of the two.

2.4. Summary

In the United States such standardized FL aptitude tests as the MLAT and the LAB have long been in general use not only in public and private schools and colleges but also in various FL courses under government, military, and corporate programs, whereas no tests of the kind are available yet in this country where there is really a strong need for FL aptitude tests designed especially for native speakers of Japanese. No doubt standardized FL aptitude tests for Japanese learners would have great contributions to make to the field of teaching and learning English as a foreign language. Roles played by FL aptitude tests in EFL education would be most significant in diversifying language courses to meet different needs of learners at different stages of learning.

3 FL Aptitude Tests and their Role in FL Education

Many FL teachers have been concerned with what makes good and poor learners in language learning. It seems that some learners have some proclivity for FL learning, and obtain the same or better achievement in their task with making relatively less efforts, compared with other learners. Research studies on a possible determinant(or determinants) of success or failure in FL learning have been reported for more than half a century from various standpoints, but what really accelerates or decelerates FL learning has still remained unclear. Yet researchers feel sure that there exists a certain mental capacity or psychological tendency in favor of FL learning, out of which individual differences in learning strategy and performance result and grow.

Were the full description of the nature of FL aptitude made available for precise measurement of learner variation in language learning, it would enable us to find out causes of the learner's learning problems in advance, and to prepare remedial courses geared up for them; it would also

enable us to predict the amount of time needed for the learner to achieve an expected mastery of a target language to be learned. Further, it would be possible for the teacher to understand without any bias merits and demerits of newly introduced teaching methods, textual materials, not to mention newly developed teaching machines through comparative examination of resultant evidence obtained from close observation of academic activities by both control and experimental groups of learners with the same degree of aptitude each. We will be concerned, in the following sections, with what practical parts FL aptitude tests play in FL teaching and learning situations.

3.1. Prediction (Prognosis)

Over the past about fifty years, as we have seen, much work has been done to construct FL aptitude tests with a reliable prediction of the learner's possible success or failure in FL learning. FL aptitude tests are chiefly concerned with prediction of what difficulty the learner will experience in the course of attaining an expected level of competence. This means that prediction, closely interconnected with diagnosis, provides a basis for other specific purposes of FL aptitude tests like guiding, placing, and selecting FL students or even preparing remedial work for assiduous students with difficulty in FL learning.

Pimsleur (Jakobovits 1970 : 235-236) comments on the degree in which IQ, English (as a native language) grades and other predictors such as his LAB, grade-point average (GPA), correlate with actual success in FL learning. His LAB used as a predictor of success in FL learning, is as good as the grade-point average, and with these two combined, the multiple correlation goes up to .72, which is not only more than double the predictive value of IQ, but also a little more than one-half of the variance in FL achievement as is shown in Table I below:

Table I

Variable	Correlation with FL Grade	Percent of Variance Explained
I. Q.	.46	21
English grade	.57	32
Grade-point average	.62	38
Aptitude Battery	.62	38
(Last two combined)	.72	52

The predictive function of aptitude tests would be the most significant in intensive language courses where all teaching and learning at any stages are focused on terminal mastery of a foreign

language rather than educational development of the learner in formal schooling. Intensive courses accommodate only a limited number of FL learners, who are required to attain a given level of competency in the language they work on in a limited length of time, and this is where FL aptitude tests come in as a sound criterion for selecting prospective trainees. The role of FL aptitude tests in intensive training courses will be discussed at some length in section five in this chapter.

3.2. Diagnosis

Diagnosis, which stands in a back-to-back relationship with prognosis, is another positive function of FL aptitude tests for FL teachers. The goal of diagnosis is to find out in advance what aspects of language learning individual students would be best suited to so that improved instruction can be tailored to deal with them as soon as possible. Indeed, experienced teachers could identify intuitively the nature of learning difficulties that some of their students might have in the course of FL study and give some advice or countermeasures for them, but a good examination of the students' scores on each of the subtests of FL aptitude tests would help the teachers to detect specific strengths and weaknesses of their students much more effectively and accurately. For instance, dissecting the student's scores on each part of the aptitude test would provide a solid basis on which to make an all-round diagnosis as to whether the student might be better at aural-oral work rather than at grammar and reading exercises or vice versa.

Pimsleur(1968 : 98-104) gives some examples to show how his LAB is used for its task of diagnosis. On one of the cases he comments as follows:

Table II

	VOCABU- LARY	LANGUAGE ANALYSIS	SOUND DISCRIMINATION	SOUND SYMBOL
+ 2				
+ 1	*			
Mean		*		
- 1			*	*
- 2				

Diagnosis: Average or below. Not much ability for foreign languages. Worse in oral work than in written.

His scores on the first two tests, which measure aspects of verbal intelligence, were about average. His scores on the last two tests, which measure aspects of auditory ability, were both below average. The diagnosis therefore was that he would not be a very good student in any respect but that he might be worse in oral than in written work.

(The distance of the * from the horizontal center line indicates approximately how many standard deviations above or below the mean the score is.)

3.3. Guidance

Guidance, which is also an individual matter, is built on good diagnosis; based on the reliable appraisal of the performance on FL aptitude tests, the teacher could advise the student to, say, put a lot more time and effort into his predicted areas of difficulty in FL learning. Identification in advance of the weak points of the student would help the teacher to forestall having to overcome them before the student is too far behind the class. The teacher could also suggest to the student that he receive out-of-class supplementary instruction to satisfy his particular needs.

In guiding their students, language teachers should not deceive themselves that there are students inept or quite unsuited for FL learning, in other words, that some students have some mental block or disability that will make it very hard for them to learn foreign languages with any benefit. Any normal learner who is able to use his mother tongue for every day communication will also be able to learn and use other languages, provided he is willing and is allowed enough time and opportunities to study and use them, though it is common that there are individual differences in the operation of the capacity to learn a foreign language among learners. Needless to say, the student with high aptitude may fail in learning a foreign language, unless he is well-motivated or well-guided in his study of a foreign language, and conversely the low aptitude student may achieve more than what is expected of his potential, if he has ever-growing motivation as a result of instruction best suited to his FL learning style.

Use should be made of FL aptitude tests not to discard students poor in aptitude, that is, not to deprive them of an opportunity to learn a foreign language, but to give them practical advice or suggestions on how to overcome their learning difficulties. It cannot be emphasized enough that FL teachers should not give up on low aptitude students simply because they are below par in their marks on FL aptitude tests.

3.4. Placement

FL aptitude tests can also serve as placement tests. We can place students on the basis of the results of FL aptitude tests administered to them. This seems to be one of the most realistic ways to use FL aptitude tests in the classroom since the aim of placement lies in tracking learners in groups with similar aptitude construct in the hope that they will make rapid and substantial progress under

the class-milieu best structured for them.

What should be kept in mind in placing students is the possibility that the learner's poor scores on FL aptitude tests do not always reflect a lack of ability at learning a foreign language, because even when one gets extremely poor aptitude scores, his real problems may lie somewhere else; in a lack of interest in the tests; in mental attitudes toward the tests; or even in misunderstanding the test instructions. It is, therefore, necessary for FL teachers to try to find out precisely what the real causes are before the learner is placed.

3.5. FL Aptitude Tests in Intensive FL Courses

As we have seen so far, FL aptitude tests have more a positive than negative use including prognosis(prediction) and diagnosis in the field of FL education. We will, in this section, consider another active role played by FL aptitude tests in intensive language courses to which we have already made some reference in the previous section.

In intensive language courses achievement tests should be used together with FL aptitude tests to assure prediction as to mastery of an expected level of proficiency in the language to be learned. Lado(1961 : 370) comments on this point:

Aptitude tests can be used to decide how long it will take a student to achieve sufficient mastery of a foreign language to study in the country where the language is spoken. This information is crucial when we consider the fact that some students with apparently the same education and general ability as others learn three times as much as others in the same intensive language course of instruction over a short eight-week period. With a good language aptitude test we can tell a student that since his present achievement is X and his foreign language aptitude is Y, if he applies himself to the task of learning the language in a given course he can be ready for study abroad in so many weeks or months. Without a measure of his foreign language aptitude we have to depend on our progress norms alone.

FL aptitude tests are indispensable in intensive language courses in that teachers need to develop and set up effectively an expectancy table of success, which indicates the rapidity with which learners are expected to acquire a certain level of mastery of a foreign language, on the basis of the data showing the relationships between learners' FL aptitude characteristics and their level of FL achievement at the time of their enrollment in the course. Many types of expectancy tables can be prepared in graph. Presented here as Table III is a type of an expectancy table developed by Cleveland, Mangone, and Adams(1960 : 250-251).

Table III

TIME REQUIREMENTS FOR FOREIGN LANGUAGE ACHIEVEMENT (IN MONTHS)

Language	Class Hours	Levels of Proficiency					
		I		II		III	
		Hi Apt.	Aver. Apt.	Hi Apt.	Aver. Apt.	Hi Apt.	Aver. Apt.
Italian, French, Spanish, German	1	4	6	No	No	No	No
Danish, Portuguese, Dutch, Swedish	2	2	3	4	6	9	12
Rumanish, Norwegian	2	1½	2	3	5	6	9
Russian, Polish, Persian, Greek	1	6	8	No	No	No	No
Finnish	2	3	4	9	12	15*	18*
Hungarian	3	2	3	6	9	12*	15*
Chinese	1	6	9	No	No	No	No
Korean	2	4	6	15	16	24*	30*
Japanese	3	3	4	12	15	18	24
Arabic	1	6	9	No	No	No	No
Vietnamese	2	4	6	12	15	18*	24*
Thai	3	3	4	9	12	15*	18*

Notes : (a) "No" entries indicate that it is not practical to achieve that level of proficiency on a one-hour-a-day basis.

(b) Entries with an asterisk indicate that one must add three months in part-time training and using the language, preferably in the field.

Level I : sufficient proficiency in speaking a foreign language to satisfy routine travel requirements.

Level II : basic familiarity with the structure of a language with sufficient proficiency in speaking to conduct routine business within a particular field. Sufficient familiarity with the writing systems to read simple material with the aid of a dictionary.

Level III : fluency and accuracy in speaking with sufficient vocabulary to meet any ordinary requirements which do not involve the speaker in a technical subject outside his own speciality. Ability to read newspapers and documents with limited reference to a dictionary.

The Army Specialized Training Program (A. S. T. P. 1941-1944) is often cited as a good example of the use of FL aptitude tests for selecting trainees for an FL intensive training program. Among the main reasons for the successful operation of the Training Program is the administration of FL aptitude tests to the trainee candidates to screen out in advance those with poor aptitude for FL learning. As is shown by the marked results of the Program, FL aptitude tests have their true merits appreciated especially in intensive language courses where trainees not only have to be limited in number for intensive exercises, but also have to be so trained as to acquire an immediate

but solid command of foreign languages for verbal and written communication in a very short period of time.

It should be indicated, however, that there are some pernicious aspects in using FL aptitude tests for the selection of students, especially in regular schools. The use of FL aptitude tests for selecting students in a normal class may lead readily to the deprivation of the opportunity for some to learn a foreign language at school. FL aptitude tests are not originally intended to serve as the basis for exclusion; using FL aptitude tests for an inhibiting purpose runs against what they are initially meant for.

3.6. Summary

Although FL aptitude tests today are supposed to have good validity for prediction of success in learning any foreign languages, the teacher should be warned against believing that FL aptitude tests can reveal everything about the learner's cognitive potential to learn a foreign language in a formal linguistic circumstance. Carroll(1959 : 21) states:

The MLAT measures certain learned capabilities of the individual which are apparently prerequisite to reasonably rapid success in learning a foreign language. For example, the individual's prowess in performing the kind of sound-symbol learning exemplified in Part II (Phonetic Script) is indicative of how well he will be able to perform similar task in learning a second language. But it is obviously impossible to deduce from the individual's score the extent to which his ability is inherited, the extent to which it has been affected by special training, or anything else which might serve to "explain" the score. It is simply a measure of the individual's present status with respect to this particular ability, ...

FL teachers should be free of the impression that the learner's success in FL learning reflects the degree of his aptitude and nothing else. There are various other factors affecting his learning performance in the classroom. Learners with low aptitude should not be ignored simply because they have done poorly on the measurements to examine some of their ability to learn a foreign language. Pimsleur (1962 : 169) once mentioned:

... verbal intelligence and motivation together account for perhaps 35% of the variance in FL achievement. This is as much as can be concluded with reasonable assurance from the evidence now at hand. Clearly, the greater part of the variance in FL achievement remains to be investigated.

4 Problems in Prospect

As we have seen in chapter I, it may be safe to say that the exact nature of FL aptitude, partly uncovered recently, is still not quite clear to us. It is only in the last twenty to thirty years that a substantive knowledge has been gained concerning characteristics of FL aptitude, and there is still as much or more to be discovered in this field as has been found out to date. Further research is needed that will help to clarify the determinants affecting an individual's performance. In this chapter we shall discuss some of the problems relating directly to both FL aptitude and FL aptitude testing.

4.1. Strategies for More Perfect FL Aptitude Tests — Implications for Future Research

One of the problems that still remain to be struggled with is the ability to encode sentences fluently in a foreign language. In the research work on FL aptitude, much effort has been given to the receptive areas of language, reading and listening with a considerable degree of success, whereas little has been done in the areas of measuring the expressive skills of writing and speaking. This is partly due to difficulties in defining aspects primarily associated with infinite possibilities of expression in these skills. One of the focuses of the research in the future would be on the way FL aptitude is connected with the ability to create indefinitely many new and more complex sentences in a foreign language, either spoken or written. Davies(1968 : 105-106) comments on this point:

It will be obvious that both the LAB and the MLAT make use only of listening and of reading tests. Neither attempts to test the production skills. Arguments as to practical difficulties ... indicate the reasons for this but it does seem necessary that experimental aptitude work(as opposed to a selection instrument) should grapple with production.

Need to measure the productive ability to express oneself in a foreign language has long been emphasized and yet no way of measuring it has been satisfactorily worked out. Objective testing to predict the learner's performance in the production skills and to assess his or her specific areas of weakness and difficulty in learning these skills is required for making existing FL aptitude tests more complete. The production aspects, *viz.* speaking and writing, ought to be as highly prized and emphasized in language education today as the other two, reading and listening.

Another problem is whether it is really possible for a poor FL aptitude learner to benefit from special training in his particular areas of low ability. As concerns this perplexing problem Carroll (1959 : 21) states as follows in his MLAT Manual:

It remains for future research to determine to what extent any of the abilities measured by the MLAT are readily subject to further training, and if so whether the special training of these abilities would enhance the individual's chances of success in foreign language training.

In this connection, Ferguson(1965 : 121-132) argues that "the individual differences can be attributed to some complex by-product of biological transmitted capacity and the type and amount of learning which occurs at particular stages of life, ... the sequencing of what will be taught and learned at particular stages of the organism's development is of importance." Her theory indicates that learning potential is the result of the learner's previous learning experience rather than the product of innate abilities, in other words, "man's abilities are not permanently fixed by biological equipment." Ferguson continues:

Although it is conceded that biological factors fix certain boundaries, all the evidence seems to suggest that the range of variation that results from learning is, indeed, very great.

This notion of Ferguson's on successive cognitive stages seems not only to give a practical hint on the problem raised by Carroll, but also to be very suggestive for FL instruction at schools. Elaborating on this theory of the synchrony, Lambert(1965 : 38) comments:

... the next steps in language aptitude research might profit from a consideration of which abilities, such as those isolated by Carroll, typically show themselves at which age levels. The sequencing of training in different skills could capitalize on normal age-level emergences of particular ability patterns.

Our last problem is, as already pointed out by Pimsleur, that the grade-point average(which represents the average mark obtained by the learner in his or her other main school subjects) is as good a predictor as the Pimsleur's Language Aptitude Battery. If this is the case, it is probable that some of the abilities measured by his LAB are conducive to learning the other school subjects besides FL learning. This assumption makes Ferguson's position on a human's learning abilities even more stimulating to FL teachers. Delving further into this premise may help to clarify so-called general mental ability or G-factor whose real character has long been sought after and yet still remains in a mystery to the profession.

4.2. What to Do with the Low Aptitude Student?

What we are concerned about is surreptitious use of FL aptitude tests: the possibility that students with low scores on the tests are denied an opportunity to learn a foreign language on the

ground that they have no gift for languages. FL teachers cannot be too careful in analyzing the test results, for there are, besides those we have touched on in the preceding chapter, many other factors having to do with individual differences in FL learning: student factor, teacher factor, teaching method, textual materials, composition of class, class climate, rapport between teachers and students, educational conditions of school, socio-cultural background and so on. Regarding the student factor for example, the following variables in addition to aptitude have been posited as affecting FL learning: interest, IQ, age, sex differences, readiness, personality, attitudes, drive, cognitive styles, and the like. Considering the fact that all these factors and variables are closely linked together, we realize how prejudicial it is to judge the learner's learning ability only from the outcome on FL aptitude tests. In fact too much credulity in FL aptitude may breed a negative attitude among teachers that low aptitude students should be discouraged from studying foreign languages, because they simply put their time, efforts and energy into language learning in vain. Warshaw(1931 : 255) is critical of this stand from an educational point of view:

Aside from the question of the validity of the prognosis tests so far devised, other consideration of moment should incline us to slowness in the application of prognosis. It may very well be that the most dependable prognosis test imaginable, agreed upon by scientists and schoolmen and perfect in operation, though effective in keeping unfit students from undertaking to learn how to read, speak, and write in the foreign languages, would in the long run prove antieducational rather than educational.

It should be noticed that even low aptitude students can succeed in achieving a certain level of proficiency with a remedial program appropriate to their needs.

Having so far seen hazardous aspects of resorting only to FL aptitude test results to rationalize learners' FL performance, we will, in the remainder of the study, consider some of the methods for dealing with under-achievement and possible dropout in the language program at regular schools in this country.

(i) low aptitude students should be identified as soon as possible: FL teachers should try best to identify low aptitude learners before these learners have gotten to the point where they have deep-rooted psychological problems which make it difficult for them to progress with FL learning. Besides the use of an aptitude test for this purpose, FL teachers can also avail themselves of the average mark to identify under-achievers whose language grade is generally at least one point below their average grade in the other four school subjects. As Pimsleur's report says grade-point average can prove a good predictor, having a correlation of .62 with the learner's FL performance. To identify low-aptitude learners early enough to find out where their real learning difficulty lies, followed by diagnostic guidance, is necessary for students who spend too much time and efforts on

their FL learning with too little reward.

(ⅱ) The use of competence levels: this means that students whose achievement in FL class is below a given level should not be allowed to get promoted to the next grade. Though high schools in this country are supposed to be on this system, it is seldom that students far below a certain level of achievement are really kept from advancing, even if it is certain that they will have a poorer grade in the following year. The reason for this is that no consensus of standard is established by which to decide whether they should be allowed to advance or not. Their promotion depends largely on their total performance in other academic disciplines. Indeed, rigid application of competence levels may be attended with serious dispute among teachers over the aim or goal of FL education at schools, but the introduction of competence levels is still worth studying as one of the solutions to the low aptitude problem.

(ⅲ) Sectioning students according to their academic achievement: grouping or placing students according to their FL performance is now being practiced at some junior and senior high schools in this country. This approach has been adopted to realize 'aptitude-treatment interaction(ATI)' and to provide the optimal relationship of learners' learning characteristics with instruction in class. The prediction data provided by FL aptitude measurements will be used to select a different teaching method for learners of a certain kind; they are put in a custom fit situation to yield maximum success in their terminal behavior. Any test output on individual differences among learners will help FL teachers to identify the method likely to produce the highest achievement possible for a particular type of learner, either low or high in aptitude. Teachers, however, should be aware of the fact that homogeneous ability grouping has disadvantages as well as advantages: that is, groundless inferiority and superiority complex growing among students, adverse attitudes among some students and their parents toward this approach, and so on. Some students may feel depressed and lose their willingness to continue studying a foreign language, when they find themselves placed in a low achievement class. Unless steps are taken to solve these emotional and psychological problems which face learners before and after they get grouped, the tracking system may run the risk of eroding students' incentive to pursue FL learning and even triggering off in their mind completely external locus of control orientation. As an alternative to the homogeneous grouping, teachers may resort to the idea of individually programmed instruction, which is not so commonly practiced but more effective in overcoming low achievement in FL learning as it generally avoids psychological problems described above. Referring to programmed instruction as a solution for under-achievement and dropout problems, Carroll(1966 : 29) states:

There are other cases in which certain well-developed programs of instruction, particularly of the "programmed" variety, yielded low correlations between aptitude and learning performance, suggesting that the obstacle of low aptitude may sometimes be surmounted by the use of small-step increment materials that do not challenge language aptitude.

On the same problem of under-achievement and dropout in FL learning, Pimsleur *et al.* (1964 : 137) comment:

The answer to under-achievement does not lie in getting rid of the under-achiever, but in learning how to teach him. The objective is to provide for every student a rewarding foreign language experience, one which equips him with a serviceable degree of competence in the foreign language.

Naturally students are not alike in their cognitive behavior — their rate of learning, ways to respond to a particular task, working styles and speed in a particular learning situation, to name a random few. Effective FL teachers should try not to attribute little progress made in learning to the learner's lack of competence but to devise instructional materials to allow the learner to be self-paced in his learning. Possible steps should be taken to meet the need to match learners with treatment that best fits them for either remedial or enrichment purposes.

4.3. Auditory Ability as a Special Factor Accounting for Success in FL Courses

On the basis of the results of the experiment in which features of under-achievers were analyzed in comparison with those of nonunderachievers, Pimsleur *et al.* (1964 : 135) reach the following conclusion with special reference to auditory ability, one of the three major factors that they claim underlie FL aptitude:

According to this investigation, there does exist a 'talent' for learning foreign languages — that is, a special factor beyond intelligence and industriousness which accounts for how well an individual succeeds in a language course. Our evidence indicates that this special factor is auditory ability, which may be defined as the ability to receive and process information through the ear. Several studies showed that auditory ability is related to language learning achievement, and consequently to under-achievement. Under-achievers scored significantly lower on two tests of auditory ability than average-achievers.

They are positive in their conclusion that the auditory ability is much more closely related to individual differences in the ability to learn and use a foreign language and that under-achievers can be differentiated from normal-achievers by measuring this ability. Carroll (1963 : 1088), having had a good analysis of his own and other studies on FL aptitude, seems to have come to the

similar conclusion:

... facility in learning to speak and understand a foreign language is a fairly specialized talent(or group of talents), relatively independent of those traits ordinarily included under 'intelligence' and ... a relatively small fraction of the general population seems to have enough of this talent to be worth subjecting to the rigorous, intensive, expensive training programs in foreign languages...

There are many reports which stress the importance of the ability to perceive and recognize sounds as symbols for ideas. The idea that this ability is a key to language learning is typically reflected in the Comprehension Approach, a new teaching methodology in current use, whose basic principle is that 'listening comprehension is the skill that precedes the other three, reading, writing, and speaking: the learner who is not well trained to understand the foreign language with some degree of success cannot be expected to make positive progress in the other areas' (Asher 1969 : 3-17; Postovsky 1974 : 229-239; Winitz and Reeds 1973 : 295-317). What is assumed in these and other related studies on FL aural comprehension is that faulty hearing, that is, inability to receive and process information through the ear may lead to failure to learn a foreign language, and that many of us are not easily able to create a sharp auditory image from the phonemic and prosodic features of foreign sound. It is, therefore, essential that materials and methods for improving auditory aspects of FL learning should be developed and ability to comprehend incoming foreign speech as semantic symbols for ideas be promoted. Gatenby(1967 : 7) is, however, rather pessimistic in outlook about a device for defective hearing, commenting as follows:

For indistinct vision we have learnt to provide correcting lenses, but for the ears which fail to bring sounds to a common focus we have not so far provided a remedy.

Although there have been no standardized methods or materials available yet for improving low auditory ability, the question "how can low auditory ability be improved?" is too crucial to be set aside. It is, as we have seen it, very probable that low auditory ability is responsible to a large extent for under-achievement and failure in learning a foreign language, especially in learning to speak and understand the language. It may be that research in the future on this ability will lead to new understanding and to a decrease in the number of under-achievers and dropouts in the FL classroom.

5 Conclusion .

Studies on FL aptitude and FL aptitude testing have a contribution to make to the language teaching profession: identifying 'fitness' or 'bias' if any at all for learning a foreign language: developing FL aptitude tests: predicting the learner's performance in learning a foreign language: diagnosing his or her strong and weak points: putting learners in homogeneous language classes according to their aptitude characteristics. These are paramount concerns for FL teachers and have been treated in detail in chapter I and chapter III.

If we really set our mind to adapting any of those instructional techniques whose main focus is on the learner to our teaching situation, our initial task should be to find out what kind of difficulty the learner will meet in the process of FL learning. FL aptitude tests would surely be an aid enabling us to take effective steps beforehand to cope better with the learner's learning blocks properly. FL teachers, however, should remember that FL aptitude tests are something like a double-edged weapon in nature that can be used equally for good and evil. FL aptitude tests should not serve on any account as an excuse for denying learners low in aptitude an opportunity to study a foreign language. Aptitude tests only measure the particular abilities of the learner in their present standing. The learner's poor scores do not mean that he is not fit for learning a language. We have so far had no convincing evidence that these abilities are permanent and stable, totally free from any external influences of environment. Besides, there are plenty of factors other than basic linguistic aptitude posited as having influence on the learning of a foreign language. Doubtless the learner's low aptitude at present can be well compensated with, for example, greater motivation, more learning time, experienced teachers and well-prepared treatment and materials that are matched up to best fit the learner's needs.

Putting research studies in the field of FL education into a historical context, we note that more attention has been paid to the question of methodologies and materials than to that of cognitive and affective variables on the part of the learner. Although the work so far done on FL aptitude, as we have seen, has demonstrated that a special group of abilities is involved in the process of acquiring another language, it seems that research on the whole body of the basic elements related to the student factor still has a long way to go. There are few positive discoveries in this area to date. We need to focus more closely on learner variables, some of which we have mentioned in this paper, to make clearer what brings the learner to effective and quick mastery of a foreign language and at the same time to make FL teaching and learning continue to improve and become even more effective in our FL classroom.

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Note

- 1) Neufeld(1978: 17-18) sees FL aptitude in a similar context when he stresses dual nature of the linguistic competence in setting out his theory on FL aptitude construct:

By the time the average child is five years of age, he unmistakably qualifies as a native speaker of this first language, having mastered what I refer to here as the "primary" components of linguistic competence. For our purposes, let these components include a reasonably large and functional vocabulary, a mastery of native-like articulatory habits, a grasp of most of the phonological and morpho-syntactic rules necessary for pre-adolescent speech and a basic mastery of the complex prosodic and paralinguistic features of his language. In other words, he can produce speech with no notable accent or unpardonable grammatical errors. ... Although our child of five has basically mastered the phonetic, phonological, morpho-syntactic and semantic rules of his language, recent work where samples of actual child speech have been gathered from children of diverse socio-economic backgrounds points to some aspects of linguistic competence which are more sophisticated than earlier supposed. If we incorporate into our working definition of competence the ability to distinguish between registers, to handle complex embedded sentences, and to reduce unnecessarily redundant elements, we must then view linguistic competence as a continuum. This continuum may indeed extend to adulthood, insofar as mastery of the first language is concerned, at all linguistic levels with the possible exception of some aspects of phonetic production. It is these more complex aspects of competence which I refer to as "secondary" levels.

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Abstract

With foreign language (FL) aptitude as one of the main factors supposedly underlying individual variation in FL learning, this paper is primarily concerned with what constitutes FL aptitude, what significance it has for FL education and with the uses made of FL aptitude tests in FL courses at school.

I What is Foreign Language (FL) Aptitude ?

1 Existence of FL Aptitude

No definite answer has been provided yet as to what nature FL aptitude has as a whole. FL aptitude was prevalently viewed as a simple and indivisible ability in the early days of FL aptitude studies in the 1920s and 1930s. However, from the late 1930s on the idea of FL aptitude as a group of abilities relatively independent of each other received wider currency and gained timely impetus from studies by Carroll and Sapon, Pimsleur *et al.*, Lambert and Gardner, and others. It is now apparent that their ambitious research studies have already confirmed the popular view that there really exist some distinct and specific abilities in favor of FL learning to a good extent.

2 The Factors Composing FL Aptitude

Under the Harvard Language Aptitude Project, Carroll completed the Modern Language Aptitude Test jointly with Sapon in 1959. Carroll reports that FL aptitude consists of at least four identifiable abilities. They are: (a) phonetic coding, (b) grammatical sensitivity, (c) rote memorization ability, (d) inductive language learning ability.

In Pimsleur's view, on the other hand, the following three factors constitute FL aptitude: (1) verbal intelligence, (2) motivation, (3) auditory ability. The results of the joint investigation carried out in the early 60s brought Pimsleur *et al.* to the unequivocal conclusion that it is possible to distinguish under-achievers from normal-achievers by measuring auditory ability: achievement in FL learning has much higher correlations with the scores on auditory ability than with the scores on verbal knowledge and motivation.

Apart from those abstract abilities and characteristics described by the above examples, some variables are referred to by the author as being indispensable to FL learning: perseverance as well as concentration in conjunction with learner locus of control orientation; inference ability to judge semantic and syntactic features of a word or a phrase from the context it is used in; and sensitivity not only to the differences in phonemic single sounds but to the way foreign sounds are pronounced in the normal flow of speech, that is, to prosodic features and syllable structures of a new language that convey meaning.

II Historical Background of the Study on FL Aptitude

Experimental literature shows that research studies on FL aptitude got started as early as in the 1900s and have been carried out systematically since the 1920s in the United States. Among the central concerns of the profession at the time were the following: (1) is there a general intelligence level below which success in modern language study is improbable? (2) is there a general scholarship level below which success is doubtful? (3) can special abilities and disabilities involved in learning a foreign language be determined and

tested so as to predict future success in this subject? (4) can achievement and progress at the end of a semester's work or a year's work be measured so accurately as to predict whether the learner has the capacity to profit from further work? (Warshaw 1931)

In the early days of the study of FL aptitude, experimental attempts and researches were undertaken from a variety of perspectives such as the learner's verbal knowledge of his or her mother tongue, scholastic performance in a foreign language in school, general intelligence, average school marks, memory, sex differences, pitch discrimination, study habit, motivation, attitudes and personality, and the like. The results of these studies, however, failed to throw any favorable light on the real nature of special aptitude for FL learning.

In the latter half of the 1920s, newly developed prognosis tests in modern foreign languages were introduced to supplant IQ tests. Among them are Stoddard's in 1925, Hunt's and Henmon's 1929, and Symonds's in 1930. No doubt, however, they were over concerned with FL courses emphasizing reading knowledge, that is, grammar, syntax and translation, and paid little attention to aural-oral skills. They were naturally good predictors of success in traditional grammar-translation courses, whereas they turned out to be far less predictive of achievement in language courses placing more emphasis on aural-oral work and exercises.

The following are the methods of prognosis in FL learning which had been adopted until about 1930: (1) selection of pupils on the basis of proficiency in the mother tongue, (2) guidance of pupils on the basis of achievement in exploratory classes in general language, (3) selection of students on the basis of mental ability as measured by IQ. 100 IQ is prerequisite to success in FL work, (4) selection of pupils by means of standardized tests of linguistic aptitude (Kaulfers 1930).

The year 1958 marked a turning point in the history of FL aptitude testing, as the National Defense Education Act passed in the States in this year provided a grant for the development of tests for the measurement of achievement in modern foreign languages, encouraging the full-scale, systematic studies on FL aptitude. Among the best known and ambitious of the FL aptitude tests developed are the following: Carroll and Sapon's Modern Language Aptitude Test published in 1959, and Pimsleur's Language Aptitude Battery in 1966. These two FL aptitude tests are now often used not only in both public and private schools and colleges, but in government and military intensive language courses.

III FL Aptitude Tests and their Role in FL Education

If the psychological construct of aptitude favoring FL learning were fully unlocked and practical aptitude tests were then made available to measure the learner's aptitude with a high degree of certainty, it would be possible for us to predict the learner's learning difficulties and their causes in advance, and provide instruction appropriate to the learner's styles of learning. We could also predict the amount of time which the learner would need to achieve an expected mastery of a target language to be learned. Furthermore, by close examination of how two groups of students, control and experimental, both similar in aptitude characteristic to each other, are affected in academic performance by different treatments in class, we could without bias evaluate interactions of FL aptitude with teaching methods, textual materials and newly developed teaching machines as well. FL aptitude tests are expected to make diverse contributions of importance to the field of FL education.

1 Prediction (Prognosis)

Were prediction made of the learner's performance in learning a foreign language, this would help us find out in advance how well and quickly the learner would be able to achieve a given level of proficiency in FL learning. We could also anticipate the learner's specific weakness or difficulty he might have in the progress of FL learning. This means that prediction would be the starting point, in a way, leading to diverse paths to diagnosing, guiding, placing, and even selecting FL students for intensive courses.

2 Diagnosis

Diagnosis, which stands in a mutual relationship to prediction, is another positive function that FL aptitude tests can serve. We undertake diagnosis to find out strong and not so strong points of individual students beforehand, so that they can be given proper advice and treatment. The student's scores on each part of an FL aptitude test would enable the FL teacher to make a solid diagnostic judgement as to whether the student might be better in verbal activities rather than in grammar and literal translation work or vice versa.

3 Placement

FL aptitude tests can also serve as placement tests. We can place students on the basis of the results on FL aptitude tests administered to them. This seems to be one of the most realistic ways of benefitting from FL aptitude tests, especially when we cannot expect enough time to be dedicated to personal guidance for some reasons. The aim of the placement is to identify learners similar in aptitude and bring them together so that they can make better progress under instruction best structured for them.

4 FL Aptitude Tests in Intensive FL Courses

As the successful Army Specialized Training Program(1941-1944) shows, FL aptitude tests have ample scope for their role in intensive FL courses, where not only the number of trainees has to be restricted to secure full attention by a small number of language specialists in charge, but also trainees have to be so trained as to get immediate control of practical use of a foreign language in a restricted period of time.

It is desirable in intensive language courses that FL aptitude tests should be used together with FL achievement tests. This is because tables of expectation of success are requisite in FL intensive courses. They are prepared so as to illustrate quantified relationships between FL aptitude and the degree to which each trainee will attain what is expected of him in a particular intensive course.

IV Problems in Prospect

1 Strategies for More Complete FL Aptitude Tests — Implications for Future Research

One of the problems that still remain to be struggled with may be how to evaluate the ability to produce an infinite number of sentences in a foreign language. Measuring the ability to create new and more complex sentences for communication has long been a tricky problem and no complete way of measuring it has been developed yet. Systematic objective testing to measure the extent to which the production skills will be attained by the learner is indispensable to make current FL aptitude tests more effective. Today as a medium of communication the expressive skills — speaking and writing — should be as highly valued and desired as the receptive.

Another problem for future research on FL aptitude is whether it is possible or not for FL aptitude to be under control through special training. Ferguson argues that "the individual differences can be attributed to some complex by-product of biologically transmitted capacity and the type and amount of learning which occurs at particular stages of life, ... the sequencing of what will be taught and learned at particular stages of the organism's development is of importance." A very crucial point made in this theory is that learning potential is largely the results of the learner's previous learning experience rather than the immediate product of his or her innate abilities. If FL aptitude is beyond any language training procedures, then we would expect to find evidence of FL learners remaining almost unchanged in their FL academic attainment under any language treatment. We know of no such evidence.

2 What to Do with the Student Low in Aptitude?

Three of the practical ways are discussed here that are thought to be viable in regular schools in this community. (1) student low in FL aptitude should be recognized as soon as possible: FL teachers should try to identify low aptitude learners before their FL performance deteriorates to the point where deep-rooted

psychological blockage makes it difficult or almost impossible for them to keep learning a foreign language. (2) the use of competence levels: the use of competence levels means that those students whose academic achievement in FL courses far below par should not be allowed to be promoted to the next grade. The Aptitude-Treatment Interaction approach is designed to offer optimal instruction and to yield the highest achievement for them. (3) sectioning students according to their style of FL aptitude: this method, no doubt, will bring about good results for both low and high aptitude students. Homogeneous ability grouping, however, has disadvantages as well as advantages. It is suggested that as an alternative to the homogeneous grouping, we should move toward individualized program instruction which seems to overcome low aptitude problems with no psychological or emotional issues accruing that go along with the former procedure.

3 Auditory Ability as a Special Factor Accounting for Success in FL Courses

With the results of an experiment where patterns of traits of under-achievers were fully compared with those of normal-achievers, Pimsleur *et al.* reach the conclusion that individual differences are more closely related to auditory ability than to IQ and interest or motivation, and that under-achievers can be discriminated from normal-achievers by measuring the factor of auditory ability. There are many other reports stressing the importance of the ability to perceive and recognize foreign sounds as symbols for ideas. The notion is typically reflected in the Comprehension Approach, a currently advocated teaching methodology, whose basic instructional format is that listening precedes the other skills, reading, writing, and speaking. Our opinion is that faulty hearing or inability to perceive and process information through the ear is closely connected with the failure to learn a foreign language, and that many of us are lacking the ability to form a sharp acoustic image associated with the characteristic sound of a foreign language. It is, therefore, urgent that a remedy should be devised for the ear which fails to form a distinct aural image of foreign speech. Materials and methods for the improvement of auditory aspects of FL learning need to be developed to cope better with the problems of under-achievement and dropout in FL learning.