
UNIT 4 LEARNER FACTORS IN SECOND LANGUAGES ACQUISITION-1

Structure

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4.0 OBJECTIVES

This unit focusses on the shift in second/foreign language research from traditional approaches to language teaching, which were largely teacher centered, to the current approaches that value the creativity of the learner and treat the learner as an active participant in the process of learning a foreign/second language. This unit will describe in some detail the contribution of the following learner variables:

- Age
- Sex
- Intelligence
- Aptitude

4.0 INTRODUCTION

The emphasis of theory and practice of second language learning in the late nineteenth and greater half of the twentieth century was mainly on the behaviourist ideas of association between stimulus and response. It viewed the human mind as a blank slate and considered language learning as a mechanical process of habit formation. The greatest advocate of this view was the American psychologist B.F Skinner. This view was challenged by the revolutionary ideas of Noam Chomsky in 1959. He felt that behaviourism simplified the learning process and underestimated the role of creativity of the human mind. He asserted the remarkable capacity of the child to "generalize, hypothesize and process information in a variety of very special, apparently highly complex ways ... which may be largely innate, or may develop through some sort of learning or through maturation of the nervous system (p.158)". **This shift had a tremendous impact on research in both the first and second language learning. The learner, rather than the teacher or the materials, became the focus of study.** The learner began to be viewed as an active participant in the process of learning. In teaching, more and more emphasis began to be given to those exercises in teaching which would help the learner to induce the language system and internalise the rules that govern the target language. In other words to actively participate in the learning process. However, focus on the learner gradually led researchers such as Widdowson, Morrow and others to look beyond the linguistic

needs to the communication needs of the learners. Another important consequence of the increasing focus on the learner was that the output of the learner began to be considered independent of the learner's first or target language. This output began to be called 'transitional competence' (Corder 1971), 'approximate system' (Nemser 1971) and 'inter-language' (Selinker 1972).

This shift from the teacher and the teaching materials to the learner, his/her needs and his/her linguistic output has also led some researchers to look into the learner characteristics in greater detail and identify those characteristics that appear to be more responsible for success or failure in second/foreign language learning. Significant among the learner characteristics identified so far, include the learner's age, intelligence, aptitude, motivation, attitude, personality and cognitive style.

4.2 AGE

Most people, including some psychologists and linguists, believe that children are better at learning second languages than adults. Penfield (1953) argued that the human brain loses its plasticity after puberty. He stressed that children relearn their language after injury or disease. Lenneberg (1968) suggested that laterlization made the brain functions become specialized in the early teens. He suggests that there is a **critical period** (between two years and puberty) for effective language acquisition. After that, while it is possible to acquire another language, it is done in a physiologically different and more difficult way. Another explanation for this apparent decline in adult language acquisition was that the adult's abstract mode of thinking interfered with natural language learning process. Yet another explanation for the decline in adult learners is that they generally do not have the same peer group pressure, the intensity of motivation and attitude towards the target language and culture that children have. Adults are also much less willing to give up their well-established social identity. Seliger (1978) points out that there is much evidence to show that children acquire the phonological system of another language much better than adults, and proposes the concept of 'multiple critical periods' correlating with localization and gradual loss of plasticity. It appears that language acquisition abilities are not lost at once. There is only a gradual reduction of such abilities. Whitaker (1978) points out that though there is evidence that under unusual circumstances language acquisition may occur after puberty, possibly through the right hemisphere of the brain, it is neither as rapid nor as successful as normal acquisition.

However, several researchers have shown that adults are actually better learners than children. Cook (1991) refers to the research carried out on the English-speaking adults and children who had gone to live in Holland. He reports that Snow & Hoefnagel-Hohle (1978) found at the end of three months that the older learners were better at all aspects of Dutch except pronunciation.

To quote Cook (1991)

The sum up, if children and adults are compared who are learning a second language in exactly the same way, whether as immigrants to Holland, or by the same method in the Classroom, adults are better. The apparent superiority of adults in such controlled research may mean that the typical situations in which children find themselves are better suited to L2 learning than those adults encounter. Age itself is not so important as the different interaction that learners of different ages have with the situations and with other people.

(Cook, 1991: 84)

Adults start more quickly and then slow down. Though children start more slowly, they finish up at a higher level.

(Cook, 1991: 85)

Thus, the researchers working on the importance of age in second language learning have shown that age is an important learner characteristic and therefore it cannot be ignored in deciding when to start teaching a second language. It is equally important to find out what materials and teaching style/strategies would be suitable for a particular age group in a specific learning situation.

4.3 SEX

Several studies of first/second language acquisition have shown girls to be better learners than boys. Trudgill (1974) showed that women used the prestige linguistic forms more frequently than men, and related this phenomenon to female social insecurity. Trudgill argued that women are socially and economically less secure than men and compensate for it linguistically. Society expects women to be more correct, discreet, quiet and polite and increases the pressure on them to use more 'correct' and prestigious linguistic forms than men. In a study of Panjabi migrant children in England learning English as a second language, Agnihotri (1979) showed that girls assimilated the prestige linguistic forms faster than the boys while resisting the stigmatised forms. Another researcher, Satyanath (1982) found that Kannadiga women in Delhi showed a higher percentage of assimilation of linguistic features associated with Hindi (the language of the host society) and a higher degree of usage than men. He found that younger women assimilated the host society's language and culture maximally. Unlike Trudgill (1974) who considered social insecurity to be responsible for higher use of prestige forms, Satyanath explained this in terms of the sociocultural aspects of the Kannadiga community in which women negotiate a greater part of the interaction with the host society.

However, in the field of formal foreign language learning there are only a few studies investigating sex as a variable. Even in these studies, several investigators generally found girls to be better learners. Burtall (1975) pointed to an interesting possible relationship between sex differences and socioeconomic status. NFER study revealed that the most marked sex differences occurred in the secondary schools where the students were predominantly from the lower socioeconomic strata.

4.4 INTELLIGENCE

What is Intelligence?

Intelligence is usually conceived of as the ability to understand, to learn and think things out quickly, especially compared with other people, and consists of verbal ability, reasoning ability, concept formation ability, etc. Carroll (1965) conceived of intelligence as the learner's capacity to understand instructions, and to understand what is required of him/her in the learning situation. It is a talent for not getting sidetracked or wasting one's efforts.

Intelligence Tests

Most of the intelligence tests measure a number of abilities simultaneously. The most commonly used individual intelligence tests include Stanford-Binet test,

Wechsler Adult intelligence Scale (WAIS), Wechsler Intelligence Scale for Children (WISC). Some of the group tests of intelligence are Army Beta Test, Army Alpha Test, Army General Classification Test (AGCT), etc. The Stanford-Binet test puts heavy stress upon verbal ability. It can't be used with children who are illiterate. Wechsler Adult Intelligence Scale (WAIS) consists of the following verbal and performance (non-verbal) subtests.

Verbal Subtests

Performance (non-verbal) Subtests

Information

Picture arrangement

General Comprehension

Picture Completion

Memory Span

Block design

Arithmetic reasoning

Object assembly

Similarities

Digit symbol

Vocabulary

The group test, **The Army Beta Test**, meant mainly for illiterates and foreigners not proficient in English, emphasizes non-verbal problems for which simple instructions can be given orally.

The Army Alpha Test designated for the typical individual who can read and write, include some of the problems like the following:-

- A. If 5 ½ tons of bark cost \$ 33, what will 3 ½ cost? ()
- B. A train is harder to stop than an automobile because

() it is longer, () it is heavier,
() the brakes are not so good.

- C. If the two words of a pair mean the same or nearly the same thing, draw a line under same. If they mean the opposite or nearly the opposite, draw a line under opposite.

comprehensive	restricted	same	opposite
allure	attract	same	opposite
talent	hidden	same	opposite
deride	ridicule	same	opposite

- D. If, when you have arranged the following words to make a sentence, the sentence is true, underline true; if it is false, underline false.

People enemies arrogant many make	true	false
Never who needless those stumble are	true	false
Never man the show the deeds	true	false

- E. Underline which

The pitcher has an important place in	tennis	football
	baseball	handball

- F. Underline which

Dismal is to dark	laugh	bright	house	gloomy
as cheerful is to				

All these tests may be useful as measures of mental ability of either an individual or a group of individuals. But these scores cannot be treated as sure predictors of success in a foreign/second language. Nor can they be considered as a reflection of abilities to acquire language. Pimsleur et al (1962) reported on a large number of studies examining the relationship of intelligence with foreign language learning. Though some of the studies gave evidence for the positive relationship between intelligence and success in a foreign language, most of the studies were skeptical of such a relationship. Carroll and Sapon (1959) noted that very few of the abilities measured in an intelligence test were found relevant to foreign language learning, and it was for this reason **that there was a very insignificant relationship between the scores on an intelligence test and a foreign language test.** More research is needed to identify those abilities that match significantly with foreign language scores. Incidentally, these abilities have been called by many researchers as language aptitude abilities. We shall look into these abilities in the next section.

4.5 APTITUDE

What is Aptitude?

Aptitude for a particular job or skill is the ability to learn it quickly and easily and to do it well. What people generally call a 'knack for languages' is nothing but aptitude for languages. But it is very difficult to determine what this knack is. It is certainly more than 'having an ear' for languages because everyone learns his/her first language.

It is popularly believed that some people have more aptitude for learning a second language than others. This observation has generally been made in connection with classroom learning, and not learning in real-life situations.

Aptitude Measures

The two best known measures of FL (foreign language) aptitude for native speakers of English are the Modern Language Aptitude Test (MLAT) developed by Carroll and Sapon (1959) and the Pimsleur Language Aptitude Battery (LAB) (1966). MLAT incorporates four factors that predict a student's success in the classroom. This consists of :

- i. phonemic coding ability: student's ability to use phonetic scripts to distinguish phonemes in the languages.
- ii. grammatical sensitivity: student's ability to pick out grammatical functions in a sentence.
- iii. inductive language learning ability: student's ability to generalise patterns from one sentence to another.
- iv. rote learning: student's ability to remember vocabulary lists of foreign words paired with translations.

These components were eventually measured in the following five sub-test of MLAT.

Part one: Number Learning: The respondent is taught, on tape, the Kurdish number system from 1 to 4 plus the 'tens' and 'hundreds' forms of these numbers, then tested by hearing numbers which are combinations of these elements, e.g. 312, 122, 41, etc. The test aims at measuring associative memory. Subjects hear a new language for numbers, and, after some practice in using these numbers, are required to translate from a new language to English.

Part Two: **Phonetic Script:** This sub-test measures phonetic coding ability. The respondent learns a system of phonetic notation for some English phonemes. S/he is then tested on this, e.g. 'Underline the word you hear: Tik; Tiyk; Tis; Tiys'.

Part Three: **Spelling Clues:** This is a speed test that measures both native language vocabulary and phonemic coding ability. The respondent is given clues to the pronunciation of a word, e.g. 'luv' for 'love' and is then asked to choose a synonym from a list of alternatives

- A. carry
- B. exist
- C. affection
- D. wash
- E. spy

In this case C. affection correspond most nearly in meaning to 'luv'.

Part Four: **Words in Sentences:** This tests grammatical sensitivity. The respondent is given pairs of sentences. In the first sentence (key sentence) in each pair a certain word or phrase is underlined, and the respondent is asked to tick (✓) one of the five underlined words or phrases in the second sentence that functions most nearly like the word or phrase in the key sentence in the pair. As you can see, in the following pairs of sentence:

London is the capital of England,
He liked to go fishing in Maine

The word 'he' in the second sentence performs the same function as 'London' in the key sentence.

Part V: **Paired Associates:** The respondent studies a written Kurdish – English vocabulary list, practices the stimulus – response pairs seen, and is then tested by means of multiple-choice items. This is a test of associative memory. For instance, the respondent is asked to decide which word of English has the same meaning as the Kurdish word roo.

Example:

roo

- a. art
- b. draw
- c. run
- d. ask
- e. camel

The correct choice is a

There are several slightly different forms of MLAT available. The MLAT itself is for use with people of 14 years of age and above. There is also an elementary form (EMLAT) for use with children between the ages of eight and eleven. There is also a short form of the test for use when the time is limited.

Pimsleur Language Aptitude Battery (LAB) is appropriate for children aged 13 to 19. It emphasises inductive language learning capacity and auditory ability. It consists of six sections, the first two depending simply on verbal report. Part one, grade point average, requires that subjects report their most recent year-end grades in English, Mathematics, Science and History (or social science) and Part two is based on the students' self-ratings on a five point scale of their interest in studying a foreign

language. Part three consists of a vocabulary test. Part four is the language analysis test. In this test, subjects are presented with a list of words and phrases in Kabardian (a fictitious language) and their English equivalents. From these, subjects must deduce how to say other things in Kabardian and select the correct answer from the alternatives provided. In part five, sound discrimination, subjects are taught, by means of a tape recording, three similar-sounding words in a foreign language. They then hear sentences, spoken in the language and must indicate which of the three words each sentence contains. Part six is the sound symbol test. Subjects hear a two or three syllable nonsense word and must indicate which of the four printed alternatives it was. Pimsleur et. al (1966) suggested that 20 to 30 per cent of children under-achieve in foreign language learning because they have poor auditory ability.

Review of Research on Aptitude

Most research in language aptitude since then has been either in validation of the existing tests, or developing aptitude batteries for use in particular countries. For instance, the York Language Analysis Test has been developed and has been widely used in Britain. The most important research aimed at the production of a new test battery has been carried out by the American Armed Forces. This was the result of dissatisfaction felt with MLAT for not being able to discriminate at higher levels. Another type of research has examined the component for aptitude in greater depth. Skehan (1980-1982) examined the memory component in detail. He hypothesized that an ability to analyse text, to extract its propositional content and remember such content would be related to greater foreign language learning success (Skehan 1989:31). Jakobovits (1970) suggested that sub-contents of FL aptitude may be exploited usefully in foreign language teaching. The teacher who has the information about the aptitude of his/her students can modify his/her instructional materials accordingly. This information can also be used to stream students into different classes with different goals. It can also help to advise students whether s/he should set a particular target in a given time frame.

4.6 LET US SUM UP

In this unit we have looked at some of the personal and cognitive learner characteristics which have a bearing on second language acquisition. We have also cited some research conducted in these areas. These factors include personal factors such as age, sex and cognitive factors such as intelligence and aptitude.

4.7 KEY WORDS

aptitude

The natural ability to learn a language which does not include intelligence, motivation, interest, etc. Language aptitude is thought to be a combination of various abilities, such as the ability to recognize the different grammatical function of words in sentences, the ability to recognize sound patterns in a new language, the ability to infer language rules. A person with a high language aptitude can learn a second/foreign language more quickly and easily than a person with a low language aptitude, all other factors being equal.

auditory

related to hearing

behaviourist theory	a theory of psychology which states that human behaviour should be studied in terms of physical processes only. It led to theories of learning which explained how an external event (a stimulus) caused a change in the individual (a response). This theory had a tremendous impact on language learning.
cognitive	the particular way in which a learner tries to learn something. In second or foreign language learning, different learners may prefer different solutions to learning problems. For example, some learners may want explanations for grammatical rules, others may not need them.
interlanguage/transitional competence/approximate system	the type of language produced by second/foreign language learners who are in the process of learning a language.
critical period	the theory in child development that says that there is a period during which language can be acquired with greater ease than at any other time.
inductive language learning	learners are not taught grammatical or other types of rules directly but are left to discover or induce rules from their experience of using the language.
lateralization	the development of control over different functions in different parts of the brain.
phonetic notation	special symbols which express the sounds of an actual spoken utterance. A transcription of such an utterance in phonetic symbols is said to be in phonetic notation or phonetic script .

4.8 SUGGESTED READING

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