UNIT 3 FACTORS AFFECTING LEARNING

3.1 INTRODUCTION

In Unit 2, we discussed different perspectives of learning and learnt that there are a number of theories which throw light on the process of learning and different theorists have different propositions on how we learn. Human learning is influenced by the family, the community, the school and the societal structure in which the child is born and brought up. Apart from this, the child’s own psychological characteristics have a strong influence on his/ her ability to learn as well as how he/ she learns. In this unit, we discuss factors that have direct or indirect influences on students’ learning at the elementary level.

3.2 OBJECTIVES

After going through this unit, you should be able to:

- list down major factors influencing learning;
- classify major factors affecting learning;
• discuss psychological factors influencing learning;
• explain various socio-cultural factors influencing learning;
• discuss different school-related factors influencing learning;
• describe various methods of learning that affect learning; and
• explain the influence of media on learning.

3.3 IDENTIFICATION AND CLASSIFICATION OF MAJOR FACTORS INFLUENCING LEARNING

Let us try to understand some of the major factors influencing learning. Certain factors are innate or personal to the individual engaged in the process of learning that are specifically unique to him/her. These factors include intelligence, motivation, emotions, interests, attitudes, beliefs, values, learning styles etc. There are certain other factors which belong to the environment or the surroundings with which the individual continuously interacts. Such factors include family, peer-group, neighbourhood, community, school-related factors etc. All these personal and environmental factors play a crucial role in influencing student learning.

We classify these factors into different categories on the basis of their nature. For this, let us, first of all, examine the following examples:

➢ Gaurav is fifteen years old and is a good student. But, he is not able to concentrate on his class as well as home assignments and consequently, has been scoring very low marks. Sources revealed that his peer-group or friend circle outside the school is not good and he remains mostly indulged in unwanted activities with his peer group.

➢ Visharth and Vrishank are classmates. Visharth can solve an algebraic sum without the help of calculator in a very short time. On the other hand, Vrishank takes a long time to solve a simple algebraic sum.

➢ Ahmed wants to be a member of Indian cricket team. For this, he makes every effort and spends a lot of time on nets. Although he does not get enough support from his family members, he maintains a good rapport with his sports teacher and also he rarely misses to watch any cricket match.

➢ Kiran is beautiful, fair and tall. She wants to adopt modeling as her career or wants to be an air hostess. She nurtures her dream. However, she keeps her dream as secret because she belongs to an orthodox family where girls are not permitted to work outside their home. When she talks about her dream with any family member, she is firmly told that she can only complete her studies up to school level and mostly can attend tuition classes.

➢ Mary and Margaret are sisters. Mary is very good at art and drawing-related works and can draw sketches about things she sees. Margaret has a passion for music. She knows most songs and can sing them even if she has heard them only once. Both of them spend hours together pursuing their respective interest areas.

These examples clearly indicate that learning is mediated by a number of factors, both personal as well as environmental. So, the notion that, “everybody learns in
accordance with his/her unique, individualized blend of personal and environmental factors” can be considered to be true.

For example, in case of Gaurav, who is performing poorly in his academic tasks, the peer group is the key factor influencing his achievement. In the similar fashion, personal innate characteristics of Visharth and Vrishank are acting as determining factors in terms of their performance in algebra. In case of Ahmed and Kiran, home environment and family culture and values of the respective individual are acting as influencing forces in selection of their professional career respectively. As far as Mary and Margaret are concerned, their special interests and talent in arts and music respectively, seem to guide their activities.

Thus, in all the examples, you can find evidences of both personal and environmental factors influencing the process of learning. On the basis of this discussion, we may define learning as a function of the interaction of personal (psychological) and environmental factors and can be mathematically represented as:

\[ L = f (EF \times PF) \]

\( L = \text{Learning}; f = \text{Function}; EF = \text{Environmental Factors}; PF = \text{Personal Factors}. \)

Personal factors (psychological factors) are the intra or within individual factors like intelligence, motivation, interests, attitudes, etc. which predispose an individual towards learning, as in the cases of Mary and Margaret as well as Visharth and Vrishank. Environmental factors, on the other hand, are those contextual factors, which highlight the role of the environment in learning, such as the socio-emotional, societal, cultural and other school-related factors. Although these factors represent two different categories, they operate in a common system. The learner and the learning process can only be completely understood with reference to the interaction of both personal and environmental factors. This may be diagrammatically represented in Figure 3.1.

![Figure 3.1: Factors affecting Learning](image)

Source: IGNOU (2007)
Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

1) Classify and list down the major factors that influence learning among the students.

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3.4 PSYCHOLOGICAL FACTORS INFLUENCING LEARNING

Psychological factors are unique or specific to the individuals engaged in the process of learning. A thorough knowledge and understanding of these factors is very essential for the teachers and parents in providing and guiding learning among the children. A detailed discussion of the sub-factors falling in the domain of psychological factors that influence learning is provided here:

3.4.1 Intelligence

Research studies revealed that intelligence is positively related to learning ability of the children. You must have seen wide variations across individuals and cultures as to what actually constitutes intelligence. Let us take a closer look at what this statement means by engaging in the following analytical task:

- Vandana always comes first in class.
- Iqbal has the ability to memorize dates and years of historical events in a chronological order.
- Sanjay is very good in dancing.
- Elizabeth can produce sound of any bird or animal.
- Vishal is a good table-tennis player.

Looking at the above profiles of five students, could you identify who is the most intelligent student? Perhaps, you cannot. This is because each of the five students has their distinctive talent in their own area or field. This is indicative of the fact that you cannot define ‘intelligence’ with a single context. Probably, there are as many definitions of intelligence as there are experts who study it. Broadly, we can define intelligence as the ability to learn about, learn from, understand, and interact with one’s environment. This general ability consists of a number of specific abilities, which include:

- adaptability to a new environment or to changes in the current environment;
- capacity for knowledge and the ability to acquire it;
- capacity for reason and abstract thought and to comprehend relationships;
• ability to evaluate and judge; and
• capacity for original and productive thought.

Besides this, intelligence as a concept has been understood in different ways by different psychologists and has, therefore, a wide variety of definitions. These are presented in Box-1.

**Box 1: Definitions of Intelligence**

<table>
<thead>
<tr>
<th>Author</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>Alfred Binet (1916)</td>
<td>Judgment, otherwise called “good sense,” “practical sense”, “initiative,” the faculty of adapting one’s self to circumstances auto-critique.</td>
</tr>
<tr>
<td>David Wechsler (1944)</td>
<td>The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.</td>
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<tr>
<td>Lloyd Humphreys (1979)</td>
<td>The resultant of the process of acquiring, storing in memory, retrieving, combining, comparing, and using in new contexts information and conceptual skills.</td>
</tr>
<tr>
<td>Cyril Burt (1955)</td>
<td>Innate general cognitive ability.</td>
</tr>
<tr>
<td>Howard Gardner (1993)</td>
<td>A human intellectual competence must entail a set of skills of problem solving – enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product – and must also entail the potential for finding or creating problems – and thereby laying the groundwork for the acquisition of new knowledge.</td>
</tr>
<tr>
<td>Reuven Feuerstein (1990)</td>
<td>The unique propensity of human beings to change or modify the structure of their cognitive functioning to adapt to the changing demands of a life situation.</td>
</tr>
</tbody>
</table>

For understanding the nature and meaning of intelligence, we have to conceptualize the following viewpoints regarding intelligence:

The approach to understand intelligence with most supporters and published research over the longest period of time is based on psychometric testing. It is also by far the most widely used strategy in practical settings. There are also psychometric tests that are not intended to measure intelligence itself but some closely related construct such as scholastic aptitude. Intelligence tests are widely used in educational, business and military settings due to their efficacy in predicting behaviour. Individuals with high intelligence quotients (IQ) are associated with more years of education, jobs with higher status and higher income. Intelligence is significantly correlated with successful training and performance outcomes. Recent IQ tests have been greatly influenced by the
Cattell-Horn-Carroll theory. It is argued to reflect much of what is known about intelligence from research. A hierarchy of factors is used to have a clear picture about intelligence. Out of these factors, the general intelligence factor ‘g’ is at the top. Under it, there are 10 broad abilities that in turn are subdivided into 70 narrow abilities. The broad abilities are: fluid intelligence (Gf), crystallized intelligence (Gc), quantitative reasoning (Gq), reading and writing ability (Grw), short-term memory (Gsm), long-term storage and retrieval (Glr), visual processing (Gv), auditory processing (Ga), processing speed (Gs) and decision/reaction time/speed (Gt).

Robert Sternberg proposed the triarchic theory of intelligence to provide a more comprehensive description of intellectual competence than traditional differential or cognitive theories of human ability. The triarchic theory describes three fundamental aspects of intelligence: Analytic intelligence, Creative intelligence and Practical intelligence. Analytic intelligence comprises the mental processes through which intelligence is expressed. Creative intelligence is necessary when an individual is confronted with a challenge that is nearly, but not entirely, novel or when an individual is engaged in automatizing the performance of a task. Practical intelligence is required in a socio-cultural milieu and involves adaptation to, selection of, and shaping of the environment to fit into in the context. The triarchic theory does not argue against the validity of a general intelligence factor; instead, the theory posits that general intelligence is part of analytic intelligence, and only by considering all three aspects of intelligence can the full range of intellectual functioning be fully understood. More recently, the triarchic theory has been updated and renamed the Theory of Successful Intelligence by Sternberg. Intelligence is defined as an individual’s assessment of success in life by the individual’s own (idiographic) standards and within the individual’s socio-cultural context. Success is achieved by using combinations of analytical, creative and practical intelligence. The three aspects of intelligence are referred to as processing skills. The processing skills are applied to the pursuit of success through what were the three elements of practical intelligence: adapting to, shaping of, and selecting of one’s environments. The mechanisms that employ the processing skills to achieve success include utilizing one’s strengths and compensating or correcting for one’s weaknesses.

The most dominant contemporary view in intelligence which has a marked influence on educational practice is the one proposed by Howard Gardener. He has advanced a theory of multiple intelligence having eight distinct abilities. Each is a separate system of functioning, although the various systems can interact to produce overall intelligent performance. The eight areas of intelligence are:

- Linguistic intelligence
- Logical – mathematical intelligence
- Spatial intelligence
- Musical intelligence
- Bodily – kinesthetic intelligence
- Interpersonal intelligence
- Intrapersonal intelligence
- Naturalist intelligence
The intelligence on which one is high in terms of manifestation will thus determine what one learns, how well one learns, and also influence the various ways in which one seeks engagement in the learning task. Thus, irrespective of how we define intelligence, in relating it to learning, there is no doubt that it affects what, when and how we learn. Further, in operational terms, it definitely is a capacity or ability for problem solving, thinking, reasoning, relating to others, dealing with emotions, developing interests, sense of right and wrong and living in consonance with our environment. To sum up, it may be said that intelligence is positively interrelated with learning capacity of the students and students high on intelligence are supposed to learn better and more as compared to their counterparts with low on intelligence.

### 3.4.2 Motivation

In order to study the effect of motivation on learning among the students, let us consider following examples:

There is a boy Jatin who gets bruises and cuts and quite often falling down while learning to ride a bicycle, but he tries to improve his performance by continued practice. Now, could you tell what makes Jatin behave in such a manner? Well, you may say that he is motivated to do so.

Consider another example of a class and try to explain what is happening.

Mr. Dey is the class teacher of VIII A. He teaches History. For some reason, this year, he has really struggled with his class. He is very upset about his students seeming so disinterested in studying History. Whenever he tries to make his lesson interesting by giving projects and assignments, his students start protesting. “Sir, this is too long, too hard, too much; we can’t understand”. “Please don’t give us extra work.” Neither parental advice nor offering incentives seem to work. The “we can’t” attitude persists among them. Some good students who always work hard also begun to behave like the rest of the class. Mr. Dey decided to get to the bottom of the problem and change his students. Let us try to help him. We can begin our analysis by asking three fundamental questions:

- **Do his students lack motivation?**
- **Why are they so resistant to learn History?**
- **What can be done to change the attitude of the class?**

To be able to answer these questions meaningfully, we have to know the difficulties and problems that students face, the level of their involvement, interest in learning history, their readiness to give up history and their feelings during this class. The answer to all such questions as to the why and how of the behaviour of the students lies in the key word ‘Motivation’.

**Motivation may be regarded as something which prompts, compels and energizes an individual to act or behave in a particular manner, at a particular time for attaining some specific goals or purposes. Motivation may also be formally defined as an internal state that arouses, directs and maintains behaviour.**

You can think of motivation as an internal energy or a mental force that drives a person to achieve a goal. Motivation is important in many contexts: school, home and the world at large. The key reason why motivation is an important concept
in education is because of the well documented relationship between motivation and academic achievement and performance. For example, students, who are motivated in school tend to achieve higher, they stay in school longer, get involved in all the class tasks, learn more and in general perform better on tests. Thus, as in the case of Mr. Dey, teachers could do well if they foster motivation for learning before they can expect students to benefit from teaching.

Motivation plays a pivotal role in learning and it is an academic reality. In fact it serves to activate, guide and maintain learning. In a sense, motivation is an index of the eagerness of an individual to learn. Adequate motivation not only sets the activities in motion which results in learning, but also sustains and directs these activities. It is, thus, an indispensable factor in promoting learning, as it energizes and accelerates the process and evokes a very positive response from the learner.

You would have observed that some students learn the same task or subject matter more efficiently than others, because they find it more rewarding and interesting. There can, thus, be a great deal of variations in ‘what motivates’, ‘how much it motivates’ and ‘what impact it has on the learner’. These variations may be attributed to differences in levels and types of motivation. For instance for some individuals, their needs determine what their motivation will be. For some others, the incentives available to accomplish a task become the most important consideration. For some others, the joy of engaging in a particular activity generates a drive. Motivation must be understood as a construct which encompasses the concepts of needs, drives and incentives. It seems to be a synthesis of all of them. Let us understand this with the help of an example:

Sudikshya is highly motivated, when it comes to art. We can reasonably draw this conclusion based on her close attention in class, her eagerness to draw whenever she can, and her career goal. Motivation is something that energizes, directs, and sustains behaviour; it gets students moving, leads them in a particular direction, and keeps them going. Virtually all students are motivated in one way or another. One student may be keenly interested in classroom subject matter and seek out challenging course work, participate actively in class discussions, and earn high marks on assigned projects. Another student may be more concerned with the social side of school, interacting frequently with classmates, attending extra-curricular activities almost every day, and perhaps running for student council. Still another may be focused on athletics, excelling in physical education classes, playing or watching sports most afternoons. Students with an undetected learning disability, a shy temperament, or a seemingly uncoordinated body – may be de-motivated to engage in academics, social situations, or athletic activities. When Sudikshya comes to school each day, she brings her strong interest in art with her. But motivation is not necessarily something that learners bring to school; it can also arise from environmental conditions at school. When we talk about how the environment can enhance motivation to learn particular things or behave in particular ways, we are talking about situated motivation. In the next paragraphs, we’ll find that as teachers, we can do many things to motivate students to learn and behave in ways that promote their long-term success and productivity.

i) Motivation directs behaviour toward particular goals.

ii) Motivation leads to increased effort and energy.

iii) Motivation increases initiation of and persistence in activities.

iv) Motivation affects cognitive processes.
v) Motivation determines which consequences are reinforcing and punishing.

vi) Motivation often enhances performance.

Not all forms of motivation have exactly the same effects on human learning and performance. Consider these two elementary students in writing class:

Siddharth doesn’t enjoy writing and is taking the class for only one reason: getting an A or B grade in the class will help him earn a scholarship at State Board examination. Another student, Mahesh always likes to write. The class will help him get a scholarship at State Board examination, but in addition, Mahesh truly wants to become better in writing. He sees its usefulness for his future profession as a journalist. Besides, he is learning many new techniques for making what he writes more vivid and engaging.

Siddharth exhibits extrinsic motivation. He is motivated by factors external to himself and unrelated to the task he is performing. Learners who are extrinsically motivated may want good grades, money, or recognition that particular activities and accomplishments bring. Essentially, they are motivated to perform a task as a means to an end, not as an end in itself. In contrast, Mahesh exhibits intrinsic motivation. He is motivated by factors within himself and the task that he is performing. Learners who are intrinsically motivated engage in an activity because it gives them pleasure, helps them to develop a skill that they think important, or seems to be ethically and morally right in thing that they do. Some learners with high levels of intrinsic motivation become so absorbed in and focused on an activity that they lose track of time and completely ignore other tasks – a phenomenon known as flow.

Learners are most likely to show the beneficial effects of motivation when they are intrinsically motivated to engage themselves in classroom activities. Intrinsically motivated learners tackle assigned tasks willingly and are eager to learn classroom material, more likely to process information in effective ways (e.g., by engaging in meaningful learning), and achieve at high level. In contrast, extrinsically motivated learners may have to be enticed or prodded, may process information only superficially, and are often interested in performing only easy task and meeting minimal classroom requirements.

In the early elementary classes, students are often eager and excited to learn new things at school. But sometime between class 3 and 9, their intrinsic motivation to learn and master school subject matter declines. This decline is probably the result of several factors. As students get older, they are increasingly reminded of the importance of good grades (extrinsic motives) for promotion, graduation, and college admission, causing them to focus their efforts on earning high grade point averages. Furthermore, they become more cognitively able to set and strive for long-term goals, and they begin to evaluate school subjects in terms of their relevance to such goals, rather than in terms of any intrinsic appeal. In addition, students may grow increasingly impatient with the overly structured, repetitive, and boring activities that they often encounter at school.

Extrinsic motivation is not necessarily a bad thing; however, often learners are simultaneously motivated by both intrinsic and extrinsic factors. For example, although Mahesh enjoys her writing course, he also knows that a good grade will help him get a scholarship at state board examination. Furthermore, good
grades and other external rewards for high achievement may confirm for Mahesh that he is mastering school subject matter. And over the course of time, extrinsic motivation may gradually move inward.

Thus, we see that motivation is a very crucial factor that affects learning among students. So, it is necessary that teachers should motivate their students at every step.

3.4.3 Maturation for Readiness to Learn

A learner’s readiness and will power to learn is a great deciding factor of his/her results in learning. It is presumed that if an individual has will to learn, then automatically he/she will find ways for effective learning. In other words, the learner should be mature enough to learn a particular skill or task. This means that there is an optimal or most appropriate time for each individual to learn a specific skill or a concept with ease and efficiency. This appropriate time comes when one’s physical, neural and intellectual aspects of development have advanced enough to enable one to perceive the problem and solve it with relative ease and comfort. For instance, four month old child cannot walk since it lacks the physical maturation or level of development required of walking. Similarly, it is impossible for five years old to comment on democracy or socialism as he/she is not ‘ready’ or cognitively adept at understanding these concepts. Maturation can best be interpreted as relatively permanent change in an individual – be it cognitive, emotional or physical, that occurs as a result of biological ageing, regardless of personal experience. Maturation is pre-programmed and occurs regardless of interactions a child has with the environment. Most expert teachers in schools know that no matter how hard they work or how good they are, they cannot force a student to think or do what he/she is not biologically ready to do. Thus, cognitive ‘coming of age’, or maturation is another specific aspect of ‘readiness to learn’. It implies that a child should have the requisite level of cognitive skills necessary for solving a problem or accomplishing a task set before her.

It is also important for you to understand that there are large individual differences in maturation. Some children, for instance, start walking at nine months, while others do the same at the age of two years. Some children speak a language quite competently at three years, while others may do that as late as five years. Maturation has to be thus understood as a natural process of unfolding of the development stages, resulting in functionally preparing an individual to acquire mastery over his/her environment.

It must have become clear to you that any attempt to teach things before an adequate level of readiness is acquired by the child is futile. This also serves to explain why non-performance on the part of learners or their inability to grasp a concept can be attributed to lack of adequate maturation and readiness to learn.

Since maturation determines the readiness for learning, it is critical for curriculum planners and teachers to take note of this. It enables them to decide what to teach, how to teach, when to teach and correspondingly be guide on what to expect from their learners. You will now be able to appreciate why very young children should not be encouraged to write. Similarly, if teenagers are undergoing mood swings, it is because of their developmental pattern – they are not pretending moods or deliberately misbehaving.
3.4.4 Emotions

It is a well accepted fact that our emotions play quite a significant role in guiding and directing our behaviour. Many times, they seem to dominate us in such a way that we have no solution other than behaving as they want us to. Emotions are the feelings that color our lives and allow us to experience all of the joys and sorrows of life. If a person has no emotions in him, then he becomes crippled in terms of living his/her life in a normal manner. Thus, emotions play a pivotal role in providing our behaviour a particular direction and thereby helps in shaping our personality. Emotions can thus be understood as an agitated or excited state of our mind and body. According to Crow and Crow (1973), “emotion is an affective experience that accompanies generalized linear adjustment to mental and physiological stirred-up states in the individual that shows itself in his/her overt behaviour.” Different psychologists describe emotions as some sort of feelings or affective experiences which are characterized by some physiological changes that generally lead them to perform some or the other types of behavioural acts. The development of emotions in human beings is largely influenced by the process of maturation and learning. Primarily, it has been shown that emotions originate in the brain, specifically in the limbic system. The limbic system is a small structure located in the middle of the brain between the lower center or brainstem and the higher center or cortex. The brainstem controls alertness and arousal and sends sensory messages to the cortex via the limbic system. Much of our thinking and learning takes place in the cortex and our limbic system interprets and directs emotions and behaviour. Thus, it can be said that both emotions and learning occur in the brain. Learning means acquiring knowledge or skills and it requires thinking. Our thinking influences our feelings, and further influences how we think.

In conclusion, we can infer that the connections between emotions and learning are bi-directional and complex. When we think about a happy incident, our mood improves. When we think about an angry incident, we are likely to feel angry. Also, being in a happy mood makes us think about happy thoughts; being in a sad mood brings sad and negative memories and images to mind. Hence, we may say that emotions can affect learning, in both positive and negative ways. When a learner experiences positive emotions, the learning process can be enhanced. When a learner experiences negative emotions, the learning process can be disabled. The diagram below represents a continuum of emotions ranging from positive and their effect on learning. The emotions listed on the continuum can either affect learning in a positive (+) or negative (-) way.

3.4.5 Interests

Interests are actually deep rooted constructs and are determined by the need structure of an individual. An individual with strong social needs such as belongingness, affiliation and recognition will direct all his/her energies into activities which enable him/her to fulfill these needs such as meeting people, going to clubs, associations, parties, meetings, etc. In theoretical terms, an interest may be defined as a learnt or acquired motive stemming from some inherent needs of the individual which drive him/her to act in a way that will sustain or satisfy his/her inner need structure. This generation of interest can be explained with the help of the following flow diagram:
Individual differ a great deal in their patterns of interests because their need structures vary. For some persons, social and emotional needs become the guiding forces, for others, aesthetic or higher cognitive needs may be the preponderant factors. Age variations are also visible. Young children have a need for activity, play, adventure etc. and thus they learn much better through a play way approach. This arouses their interest in studies and helps to sustain their involvement in work. For adolescents and older learners, the needs for affiliation and group belongingness are very high and thus they always show an interest in recreational group activities like parties, picnics, social outings, etc. Interests are, thus, determined by both age related and human needs factors. They influence not only what one learns best, but also serve to explain why learning becomes inadequate. You often hear teachers complaining to parents at the Parent Teacher Meetings that their children can do very well in studies, provided they take interest in them. You may have also heard students saying “Hindi is so boring”; “I just can’t do physics – its subject matter doesn’t interest me” or “why should I go for the cricket match when I am not interested in cricket!” Interest is one of the most important factors which mediates learning and which motivates learners to act. Without interest, as is evident from the examples cited above, there can be no learning. An interest is not the same as preference for some object, event or behaviour over others and which provides engagement and joy and is undertaken voluntarily.

### 3.4.6 Attitudes

We have many likes and dislikes and beliefs and opinions which predispose us to behave in certain ways. For instance, we might think that studying science at the senior secondary stage is too difficult, or we might think that living in rural India will mean following traditional styles of dressing and behaving etc. All these are preconceived ideas and notions which exist in our psyche and may be termed as our attitudes. Attitudes are born out of the process of socialization and usually have a knowledge and feelings component. We have attitudes towards objects, events and persons. Our attitudes may be positive, negative or neutral. For instance, if we are inclined towards reading books, playing cricket, good health fitness etc, we will have a positive attitude towards books, games, going for morning walks, gymnasiuims etc. However, if we disapprove of how the younger generation dresses and behave in urban areas, or about contemporary
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cinema, our attitude towards them will be negative. There are some things which we are indifferent about – our attitude towards them is usually neutral. Why the direction of our attitude is important is, because it influences what we learn willingly and with enthusiasm and what we will be unwilling to learn and do, or simply avoid. Thus the positive or negative predisposition within a person has important motivational components. When students have a positive attitude towards the school, not only does it imply that they will like school, but they are likely to endeavour to do well, to be liked by the teachers and will conform to the culture, goals and expectations of the school.

Very closely related to the concept of attitude are the constructs of prejudice and stereotype. Both of these usually influence the learning process. Prejudice may be understood as a negative attitude towards an object or event, while stereotypes represent a mind set, or expectancy, or a readiness to react in a certain way to a stimulus situation. Both prejudice and stereotypes are learnt attitudes, resulting from cultural conditioning. They assume special significance in learning since they greatly influence the direction, intensity, seriousness and commitment with which one learns or engages in an activity. It is very difficult to unlearn prejudices and stereotypes.

3.4.7 Self-Concept

In the context of learning, the ‘self concept’ of an individual assumes considerable importance since it represents what an individual feels about himself/herself and his abilities to perform and achieve. Self concept is a broader term which includes the sub-categories of self-image, self-esteem and self-efficacy. Let us try to understand all the three since these have a bearing on learning. Self image refers to one’s own perceptions about oneself – what are one’s strengths and capabilities and what are one’s weaknesses or limitations. It is usually based on the self-analysis or energies in the course of one’s real life experiences. You must have heard many students say “I’m good at maths or art or english and simply awful at geography or science”. This is a judgment they make about themselves after engaging with these subjects over a period of time. It assumes importance as the student who feels that, she/he is good at maths or english will learn these subjects with great interest, energy and enthusiasm, unlike subjects which she/he finds him/her weak. This holds true for all other activities as well. Those students who feel that they are weak at sports or art or creative work, will try to avoid these activities and will take much more time and effort to learn them. Thus self-image influences the direction and intensity of our learning. Very closely related to the concept of self-image, is self-esteem. Self esteem refers to the value a person places on himself or herself. It is the ideas one has about his/her attributes and abilities. These ideas are not only based on personal experience and self-analysis but are located within the domain of how one perceives one’s acceptance and recognition by others. Self-esteem is thus a measured component of self-concept. It is almost like an evaluation of oneself. Let us try to understand self-esteem by the following illustration:

Bharti has been representing her school in the quiz team for the last four years. Ever since she joined the team, the school has been on a winning spree. The teachers and principal hold her contribution in high esteem. This has given her a new identity and very positive feelings about herself and her capability. Bharti has a very positive self-concept based on a positive self-image and positive self-
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 esteem. She is always enthusiastic about quizzes, reading, learning more, and knowing more. Her academic performance also reflects this. She is ready to learn new things and invest any amount of time and energy in preparation since these help her to feel good about herself.

This case clearly illustrates that not only do our own judgments of ourselves affect our self-esteem, but also other people’s judgments about us affect our self-esteem. Self-image and self-esteem are very closely related to the concept of self-efficacy. Self-efficacy refers to a person’s belief in his/her ability to get things done. Self-efficacy addresses questions like – “Will I succeed or fail?” “Will I be liked or laughed at?” We usually imagine future consequences based on past experiences and our observations on others. These predictions are affected by our self-efficacy or beliefs about our personal competence in a given area. People’s expectations of self-efficacy can derive from a number of different sources: direct experience, interpretations of the experiences of others, what people tell them they are able to do and others assessment of their motivational and emotional state. In general, if someone has a higher degree of self-efficacy, she or he is more likely to learn and better attain the desired outcome. In schools and colleges you must have observed that student’s level of self-efficacy can lead to self-fulfilling prophecies. When students believe they are able to do something, they are more likely to expend the effort and resources in doing it. With this they achieve what they had targeted to learn or do even better. One success leads to another, helping students to view themselves as being continually successful in learning/ accomplishing the outcomes they desire. In contrast, if students have a low sense of self-efficacy, they may believe they are unable to succeed and as a result show poor performance or even failure, which leads to the expectation of future failure.

Self-efficacy is very important for learning since greater efficacy leads to greater effort, persistence and learning even in the face of set-backs. Self-efficacy also influences motivation and learning through goal-setting. If we have a higher sense of efficacy in a given area, we will set higher goals, learn better, be less afraid of failure and find new strategies when old ones fail. If our sense of efficacy is low, we may avoid a task altogether, or give up learning doing it when problems arise. Self-efficacy must not be considered synonymous with self-esteem or self-concept, since it involves judgments of capabilities specific to a particular task. Self-esteem, on the other hand, is concerned with judgments of self-worth, and self-concept is a more global construct which encompasses self-esteem and self-efficacy.

3.4.8 Learning Styles

Individual show preference for different learning conditions. These are called learning styles, or learning preferences. The learning style theories recognize that individuals learn in different ways and that each individual has a unique style of learning. You must have noticed that some students learn well in the morning while some others prefer to study at night. Some students like to sit in quiet places, while some others like to have music accompanying their learning. Many students report optimal learning while sitting on the dining table and also eating snacks along with their studies. Students who live in joint families actually develop styles of learning which are set in public spaces. Learning styles can thus range from straightforward preference for physical surroundings to more
Factors Affecting Learning

fundamental differences that may be rooted in culture or personality. Some individuals take a ‘deep-processing approach’, seeking the underlying concepts and meanings of what they are attempting to learn. Others take a surface – processing approach, focusing on memorization rather than analysis and understanding. It is generally observed that individuals who adopt a surface approach are motivated by getting good marks and other external rewards, whereas those who take a deep approach enjoy learning for the sake of learning and are less concerned with external evaluations. There are many more differences in learning styles which educational psychologists have studied. For example, think about how you learn the names of people you meet. Do you learn a name better, if you see it written down? If so, you may be a visual learner, one who learns best by seeing or reading. If you learn better by hearing, you may be an auditory learner. Another pattern of learning styles is field dependence versus field independence. Field dependent individuals tend to see patterns as a whole, and have difficulty separating out specific aspects of a situation or pattern, while field independent persons are more able to see the parts that make up a large pattern. Another important learning style on which individuals differ is ‘impulsivity’ versus ‘reflectivity’. Impulsive individuals tend to work and make decisions quickly, while reflective types are likely to take a longer time considering all alternatives.

Check Your Progress

Notes:  a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

2) List down significant psychological factors that influence learning among students.

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3) In your opinion, how does intelligence level of children affect learning among them?

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4) Read the following cases carefully and then identify their self-concept and learning style. Describe their relationship with learning.

a) Namita aged 14 is very frightened of mathematics. She goes blank each time she opens her maths book. At school, although she is comfortable with all other subjects, she becomes very nervous in
her maths class and makes mistakes all the time. Most of the children laugh at her. Her maths teacher often intimidates her. Namita practices hard at home and in the presence of her maths tutor, gets all her sums correct. She does each exercise thoroughly and sits in a quiet corner of her home. It is her dream to top one day in mathematics!

b) Sameer is a very creative boy. He is bored at school, since the normal classroom teaching does not interest him. He finds the course dull, too bookish and uninspiring. It is his weird to design a car which runs on water. He keeps on trying to find out more and more about automobiles, their designs etc. His parents are worried about him, since his performance is not very good at school. He seldom studies and is always reading books other than his school texts. His teachers do not bother much about him since they consider him weird and somewhat crazy. Yet Sameer is not upset or unhappy; he continues to pursue his passion.

3.5 SOCIO-CULTURAL (ENVIRONMENTAL) FACTORS INFLUENCING LEARNING

The socio-cultural environment, within which a child grows, has a significant impact on his/her learning. In fact, all learning occurs with special reference to the cultural context of an individual. The social constructivist view of psychology holds that all learning is culturally oriented and guided. For our own understanding, we can sub-divide socio-cultural factors into: a) family, b) neighbourhood and community; and c) socio-cultural diversities like, caste, class, ethnicity, religion, etc.

Family has the first and most fundamental influence in the socialization process of an individual. It is within the family that child learns the behaviour patterns for survival, social skill, attitudes, interpersonal skills, social norms, the do’s and don’t’s of his/her culture and community, acquires a sense of right and wrong, a value orientation etc. thus, we can say that the family is the site of all learning. In a family, the relationships with the parents play a vital role in the learning process of the students. If the child-parents relationship is based on mutual respect and faith, it can provide the child a congenial atmosphere which in turn can facilitate his/her learning. A distorted and unhealthy environment, on the other hand, adversely affects the learning of the student. The upward mobility brings
Factors Affecting Learning

resistance on the part of the student to learn. Students in such families find themselves unable to cope up.

The neighbourhood and community in which a child lives also have a potent impact on what he/she learns and acquires. Many attitudes, habits, beliefs, perceptions, stereotypes and social roles and responsibilities are shaped directly or indirectly by child’s experiences with the persons in his/her neighbourhood. These persons include his/her peers and age-mates and all the elders around his/her. Through conditioning, social learning, direct instruction and modeling a child learns a number of things from them.

A healthy peer relationship also plays an important role in learning. Student relationship in the classroom, school, society, etc. creates a particular type of emotional climate. A sound peer relationship provides a tension free environment to the student to learn more and to compete in the class. If the relationship among peers in not good, it adversely affects their learning. Therefore, it is recommended that in order to improve classroom learning climate, free discussions should be organized during teaching-learning process. The student should be encouraged to meet each other and their teachers freely. If any misunderstanding is created or developed, it should be immediately clarified so as to maintain the healthy climate and cordial relationship among peers.

In our country, casts, class and religion also play a predominant role in shaping our identity, self-concept, attitudes, value orientation, goals and achievement patterns. For example, the socio-economic status of the group to which we belong can be directly linked with the degree of stimulation or enrichment available to us in our learning environment. It has been seen that an adequately enriching and stimulating environment provides the learner with more learning opportunities, and greater control over the environment than an impoverished or needy environment.

Learning is also seen to vary across religious and ethnic groups, owing to the distinction in their beliefs, values, attitudes and practices. In the Pan Indian culture, we are encouraged to develop a sense of autonomy, independence and control over our own lives. In many orthodox communities, the social learning of girls is fraught with biases and injunctions which are justified in the name of religious beliefs. The kinds of experiences which a learner is exposed to, differ across regions and geographical locations as well.

Hence, it may be concluded that the socio-cultural environment provides us with a learning framework. Learning is a process of constructing meaning of our experiences and in this process of ‘meaning making’ the socio-cultural dispositions and training we have received are likely to exert their influence.

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<td><strong>Notes:</strong> a) Write your answers in the space provided after each item.</td>
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<td>b) Compare your answers with those given at the end of the Unit.</td>
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<td>5) How does family environment influence learning among children?</td>
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6) In your own classroom situations, you might have come across various socio-cultural diversities among your students in the class. How do these diversities influence learning among the students? Discuss with example.

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3.6 SCHOOL RELATED FACTORS INFLUENCING LEARNING

Learning is also assumed to be greatly influenced by the school and the school environment in which students are imparted with different types of learning experiences. The term ‘school environment’ encompasses the terms ‘school culture’ and ‘school climate’ that affect the behaviour of teachers and students. School culture is the shared beliefs and attitudes that characterize the district-wide organization and establish boundaries for its constituent units. School climate characterizes the organization at the school building and classroom level. It refers to the “feel” of a school and can vary from school to school within the same region. While an individual school can develop a climate independently of the larger organization, changes in school culture at the regional or local level can positively or adversely affect school climate at the building level. School culture reflects the shared ideas-assumptions, values, and beliefs—that give an organization its identify and standard for expected behaviours. These ideas are deeply imbedded in the organization and, to a great extent, operate unconsciously. They are so ingrained that they are often taken for granted. Understandings shared by teachers, staff, and students structure their responses to demands made from outside (e.g., by parents and the community), and from inside (e.g., by the top administration and its communication of directions from the higher government authorities). School culture is based on past experience which provides a template for future action based on “how we do things in this organization.” School culture is reflected in an organization’s atmosphere, myths, and moral code. The characteristics of a school culture can be deduced from multiple layers:

- Artifacts and symbols: the way its buildings are decorated and maintained
- Values: the manner in which administrators, principals and staff function and interact
- Assumptions: the beliefs that are taken for granted about human nature.

On the other hand, school climate reflects the physical and psychological aspects of the school that are more susceptible to change and that provide the preconditions necessary for teaching and learning to change and that provide the preconditions necessary for teaching and learning to take place. School climate, focuses on the feelings and attitudes about a school expressed by students, teachers, staff and parents – the way students and staff “feel” about being at school each day. School climate is a significant element in discussions about improving academic
performance and school reform. It is also mentioned in discussions of potential solutions to problems such as bullying, inter-student conflicts, suicide, character education and moral education. Although, there is no consistent agreement in the literature on the components of school climate or their importance most writers emphasize caring as a core element. However, some place safety foremost, defining school climate as “an orderly environment in which the school family feels valued and able to pursue the school’s mission free from concerns about disruptions and safety.” Several aspects of a school’s physical and social environment comprise its climate. The following eight areas comprise school climate:

- Appearance and physical plant
- Faculty relations
- Student interactions
- Leadership/decision making disciplined environment
- Learning environment
- Attitude and culture
- School-community relations

The comprehensive view used in this brief, and summarized below, defines school climate in terms of four aspects of the school environment:

- A physical environment that is welcoming and conducive to learning;
- A social environment that promotes communication and interaction;
- An affective environment that promotes a sense of belonging and self-esteem;
- An academic environment that promotes learning and self-fulfillment.

These various aspects of school climate do not operate independently of one another. For example, the physical environment can encourage or discourage social interaction. Similarly, social interaction facilitates a warm and affective environment. Collectively, the physical, social and affective environments contribute to, and are impacted by, the academic environment.

In addition, a student is helped by the resources available in the school for bringing desirable changes in his/her behaviour. The physical resources include availability of appropriate learning materials, facilities like teaching-learning aids, school building, classrooms, library, laboratory facilities, playground, sports equipments, electricity facility, drinking water facility, proper seating arrangements, and so on. The quality and management of these physical resource decide about the effectiveness of learning among students. Apart from this, school policies, the nature of school administration, distribution of responsibilities and accountability, leadership provided the institutional head, discipline among staff as well as students, etc, are also the deciding factors that influence learning among the students.
Check Your Progress

Notes: a) Write your answers in the space provided after each item.
   b) Compare your answers with those given at the end of the Unit.

7) Enumerate the factors that operate in your own school and have a close impact on learning among students of your school.
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8) Differentiate between school culture and school climate.
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3.7 TEACHING-LEARNING PROCESS RELATED FACTORS INFLUENCING LEARNING

3.7.1 Methods of Learning

The methods of learning involve the question of how to study. Correct ways of study always enhance learning. Effective learning promotes good memory of the corresponding material. The quality of learning depends on the abilities of a teacher and a learner to link the present new learning with the past experiences of the learner which helps the learner to assimilate and understand new learning. In the same way, one can expect good results in learning, if learning experiences are given in view of seeking correlation among different subjects or areas and with real life happenings and situations.

Senses also play a dominant role in the learning process. A learner who learns through utilization of maximum senses always has an advantageous edge over others. The revision and practice always brings good results in the achievement of learning. A student who is engaged in sufficient drill work, practice, revision and review of the learning task can be expected to harvest a good yield in terms of retention, reproduction and utilization at the proper time. In addition, learning also depends on the nature and quality of the reinforcement provided to the learner in the learning task. Knowledge of the results and progress also work for providing immediate reinforcement to the learners. The results of learning are also influenced, to a great extent, by the methods and techniques employed by the teacher for teaching of a particular content or the subject matter. The learner-centered teaching methods that allow useful teacher-pupil interaction have proved to be more helpful in enhancing learning among the students as compared to the teacher dominated methods and techniques.
3.7.2 Influence of Media on Learning

These days, children are born, grow up and live in a media dominated world. Media have been considered as an important component of transmitting information. All media are basically delivery media because they deliver i.e. communicate information from the sender-end to the receiver-end. The learner is a receiver and consumer of the information conveyed through the media. Media can be broadly divided into two categories: print and non-print media. Print media refers to text or printed materials. It is economical and has traditionally been used for pedagogical resources. But, it may not be the only or the perfect medium to impart education. Non-print media, also known as modern electronic media have certain unique qualities which, in certain cases facilitate learning much faster than the print medium. These help meet diverse learning objectives more efficiently than the printed matter. Certain non-print media formats and delivery systems contribute well to students’ learning activities. These excite the students psychologically and motivate them to participate in teaching-learning process. So, it is well clear that media are advantageous in enhancing learning among students, but proper use of the media requires the use of well-developed media-specific skills. If these skills are not well developed, the message may be misinterpreted or uncritically received, accepted and responded to. For using media constructively, learners need to learn how to critically interpret combinations of words, pictures, maps, diagrams and specialized symbolic expressions. Critical learners can use different media for attaining various educational objectives, chief of which are the following:

- As a means of entertainment or infotainment i.e. information-cum-entertainment;
- As a means of enriching classroom learning;
- As a major learning resource;
- As a means of developing and refining creative expression;
- As a means of further development of media-specific sensory skills and higher order cognitive skills.

A constructive use of various media can enable the learners to transform their understanding of their society and themselves, and thus help formal education become more meaningful for every learner. If the end-purpose of education is to prepare the individual for creative and decisive response to life’s uncertainties, the proper use of mass media can indeed prove to be real asset. Media can provide a glimpse of alternative possibilities and help learners to reconstruct a new map of knowledge, with greater focus on powers of synthesis and intellectual analysis.

3.8 LET US SUM UP

In this unit, we have discussed the major factors affecting learning. Any discussion on learning always strives to identify the factors which affect it, irrespective of whether these are psychological, socio-cultural, school-related or factors related to teaching-learning process. Among the significant psychological factors affecting learning are intelligence, motivation, self-concept, attitude, interests, learning styles, emotions, etc. In the similar manner, socio-cultural factors that affect learning include family, home environment, neighbourhood, community, peer-group, etc. Likewise, school environment, school policies, physical infrastructure, co-curricular activities, teaching methodology employed, methods
of learning, media employed for learning, etc. are some of the major school-related factors that have a strong bearing on learning among students. These different factors interact in various ways and combinations to mediate the learning process. It is very difficult to extricate any one of these factors from each other. You must have understood how each of these factors are conceptualized and understood, their proneness to individual variations and their relationship with learning.

### 3.9 UNIT END ACTIVITIES

1) Interview any two students studying in your school regarding their performance and achievements in school. Identify the factors which have influenced their performance along with the depth and direction of influence.

2) Analyze the report cards of 10 students. Based on the marks/grades and comments given, try to arrive at the possible factors which have influenced the learning among them.

### 3.10 POINTS FOR DISCUSSION

1) In any leaning task or activity, performance is contingent on both personal and environmental factors. Discuss.

2) Discuss the role of readiness and maturation in influencing learning among the students.

3) To best understand a learner, we need to consider his/her perspective and point of view and the sum total of the world in which he/she lives. Critically analyze the statement.

4) Irrespective of whether we go to school or not, we all learn. In such a case when we don’t go to a formal school, which factors are likely to shape our learning?

5) Explain the role of school climate in affecting learning among students.

6) The methods and media employed during teaching-learning process have a strong impact on learning among students. Do you agree to this statement? Support your answer with suitable examples derived from your own class situations.

### 3.11 SUGGESTED READINGS AND REFERENCES


Factors Affecting Learning


Humphreys, L.G. (1979). The construct of general intelligence. *Intelligence* 3(2): 105-120.


### 3.12 ANSWERS TO CHECK YOUR PROGRESS

1) Refer to Section 3.3.1, 3.3.2, 3.3.3, and 3.3.4.

2) Intelligence, motivation, maturation/readiness to learn, emotions, self-concept, learning styles, attitude etc.

3) Refer to Section 3.4.1.
4)   a) Answer the question by referring to Section 3.4.7 and on the basis of your own understanding and experiences as a school teacher.

   b) Answer this question by referring to Section 3.4.8 and on the basis of your own understanding and experiences as a school teacher.

5)   Refer to Section 3.5 and on the basis of your own experiences as a community member as well as a school teacher.

6)   Answer this question on the basis of your own experience as a class teacher.

7)   School environment, co-curricular activities, infrastructure facilities, library, laboratories, teachers’ strength, teaching methods employed by teachers etc. Apart from this, answer to this question should be based on your own observations of the school in which you are working as a teacher.

8)   Refer to Section 3.6.