UNIT 7  THE LEARNER: VARIOUS PERSPECTIVES

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7.1  INTRODUCTION

Over the years educationists have come to the conclusion that in spite of the obvious similarities, children differ from each other in many ways. Children in our schools, in mixed ability classes, are becoming increasingly diverse. Teachers are becoming more and more conscious of these differences and some have difficulty in coping with diversity in the classroom. Some learners as a group may have their origin broadly in the same socio-cultural and economic background (e.g. rural, urban, highly industrialized) families and be in the same sex and age cohort, yet they may differ from each other. During the 1950s teachers were told that children were not miniature adults. In years that followed however, they were told that each child has unique identity, and therefore the child’s rights must be respected. The new knowledge generated through research and first-hand observations of young learners led us to believe that similarities among children may be superficial, while the dissimilarities are real. Teachers who worked within the perspective of the behaviouristic theory of learning organized their classroom teaching on the assumption that young learners are passive recipients of instruction provided by teachers in the classroom. Those working with cognitive theories of learning took the view that children, despite their immaturity, are active meaning-makers and use a variety of strategies for this purpose. With greater acceptance of constructivism in cognitive psychology, educationists have highlighted the central role of learners in creating or constructing new knowledge for themselves. This has given rise to learner-centred teaching. In recent years, Alexander and Murphy (1994) outlined five psychological principles of learner-centred teaching which are as follows:
Students' prior knowledge influences their learning;
Students need to think about their own learning strategies;
Motivation exercises a powerful influence on one's learning;
Development and individual differences influence learning; and
The social context of the classroom exercises considerable influence on one's learning.

Betty Leaver (1997) in her book “Teaching the whole class” emphasised that while all students can learn, they do not learn in the same way. These developments have given rise to the adoption of various perspectives on learners. Teachers can use these perspectives to teach learners with a view to enable them to learn as best as they can. This implies that teachers should know about these perspectives and develop a comprehensive repertoire of teaching techniques, skills and strategies to cater to the needs and preferences of various learners. This unit presents six perspectives on learners which are given below:

a) Learning styles and preferences;
b) Learner’s achievement and learning capacity;
c) Study habits;
d) Learner as a member of a peer group;
e) Learning environment; and
f) Mass-media

This unit describes these perspectives in this very order and concludes with a brief description of ‘why’ and ‘how’ to provide individualized learning experiences to all learners.

### 7.2 OBJECTIVES

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

- identify and describe learners’ major learning styles and preferences and distinguish among these;
- list and illustrate factors that influence achievement and learning capacity;
- describe learners’ various study habits that influence their achievement;
- explain the influence of peer group on learners’ attitudes, values and achievement;
- differentiate between cooperative and competitive learning environments and how these influence learners; and
- describe the impact of various types of mass media on learners.

### 7.3 LEARNING STYLES AND PREFERENCES

In contemporary educational literature, one comes across expressions like ‘learning styles’, ‘cognitive styles’, and ‘affective styles’. ‘Learning styles’ represent those characteristics which determine and characterize a person’s preferred approach to learning and its use in problem solving. Different learners display different preferences in terms of their learning styles. Learning styles are relatively more stable, though the same learner may resort to the use of a different learning style in a particular situation. Learning styles are thus relatively well-established response patterns in individuals.
compounded by one's learning and problem-solving processes. Thus learning styles consist of two sets of attributes/components: (a) temperamental; and (b) cognitive. Temperament-related attributes constitute one's 'affective style', while cognitive attributes determine one's 'cognitive style'.

One may define 'affective style' as the set of temperamental and motivational techniques that influence a person's learning and problem-solving behaviour. As teachers we are well aware of how various temperamental traits e.g. anxiety, self-assurance, submissiveness, introversion, extraversion etc.; and dynamic traits of self-concept, need-achievement, curiosity etc. affect one's performance.

'Cognitive style' has been defined by Sam Messik (1976) as consistent individual differences, like stable attitudes, preferences or habitual strategies that determine a person's typical modes of perceiving, remembering, thinking and problem solving. Kauchak and Eggen (1998) however, do not differentiate between 'learning styles' and 'cognitive styles', and describe these as preferred ways that different individuals use for processing and organizing information and for responding to environmental stimuli. Learning styles as well as cognitive styles are relatively stable and therefore these can be easily identified by the teacher. Since most researchers do not differentiate between 'learning style' and 'cognitive style', these expressions tend to be used synonymously. Research on cognitive styles is far from easy, as cognitive styles have to be inferred from the outcomes or the products. For example, all of us can hear a watch tick and see its second hand move and also tell the time. But we do not know how all these things happen. In order to understand the working of a watch, we will have to open it, see how its various parts function. Unfortunately, this is not possible in the case of human mind. Therefore, one has to work backwards from the product or the outcome and infer how the person arrived at it.

Different psychologists have classified learning styles in different ways. For example, Kauchak and Eggen (1998) deal with these as 'dimensions of learning' as shown in Fig. 7.1.

![Dimensions of Learning Styles](image-url)

While most psychologists accept field dependence vs field independence and impulsivity vs reflectivity as two major dimensions of learning styles, classroom-based learning styles do not figure in their classification. Let us now examine these learning styles in detail.
7.3.1 Field Dependence Vs. Field Independence

This dimension of learning styles was postulated by H.A. Witkin and his associates on the basis of their experiments based on two tests viz., Body-Adjustment Test (BAT) and Rod and Frame Test (RFT). In BAT, subjects sit in a tiltable enclosure on a tiltable chair and they are asked to adjust the chair until they believe that it (the chair) is vertical. Performance score is based on the difference measured in terms of the angle between the believed and the true vertical. RFT consists of a luminous rod within a luminous frame in complete darkness. The subject has to adjust the rod to the true vertical irrespective of the orientation of the frame. In BAT and RFT, subjects have to make necessary adjustment in the presence of a distracting background field. Extreme scores in both directions are viewed as reliable indicators of field-dependent or field-independent cognitive style. Subsequent studies have revealed that field-independent learners tend to be more active, resourceful and self-directing; they are less affected by social norms, and are more realistic in their concepts about time and space. Field-independent learners approach problem-solving in a more analytical manner. Field-dependent learners, on the other hand, are more global in their approach. Just as there are field-independent and field-dependent learners, there are teachers who are field-dependent or field independent. Field-dependent teachers organize their teaching in a tight manner and logically; they are relatively more formal too. Researchers have found that field-independent learners can easily break complex problems and situations down into sub-components, while the field-dependent learners are more influenced by surface features of the problem or situation. It has been further observed that field-dependence and field-independence are influenced by development. As learners grow older, they become less influenced by surface features. Field-independent students are better organized in terms of their note-taking skills, have more key ideas and are better able to restructure problems to suit end-goals.

Field-dependent learners have been observed to be more sensitive to contextual cues and they process problems globally. They are more dependent on their peer group and look to others for cues.

7.3.2 Impulsivity Vs. Reflectivity

This dimension of learning styles was postulated by J. Kagan (1971) on the basis of data yielded by Matching Familiar Figures Test. In this test, the subjects are asked to match a familiar figure with one of the given six figures. Kagan found that reflective children review the possibilities and tend to be abstract in their preferences. Impulsive children, on the other hand, act intuitively and usually try out hypotheses by testing them in reality. As teachers, we are only too familiar with students in our classroom who are impulsive and with those who are reflective. Impulsive students are always in a hurry to give the answer, sometimes even before the teacher has completed the question. Reflective students, on the other hand, think before they answer. Impulsive students take more chances, resort to blind guesses, are in a hurry to complete the test paper and in the process make more errors. Reflective students are good in solving problems that demand thinking and restructuring, while other things remaining the same, impulsive students tend to perform better on speed tests.

7.3.3 Other Classifications of Cognitive Styles

In addition to the cognitive styles we have discussed so far, some psychologists have proposed other cognitive styles. Chief among these are Bruner and associates' (1965) Focussing Vs. Scanning, and Pask's (1975) holistic Vs. serialist styles. Let us examine these briefly.

A learner who uses 'scanning' works out hypothesis from the given information and tests it. A learner who uses 'focussing' works by altering one attribute at a time (conservative gambling) or more than one attribute at a time (focus gambling). Under 'focussing', one does not test hypotheses. Focussing is intellectually less demanding and this explains why most learners prefer to use it. Besides focussing works faster...
According to Gordon Pask, a learner who uses 'serialist' style processes information in a linear manner i.e. successively. He prefers to use narrow focus of attention and takes stock of facts and details, and examines logical connections. A 'holistic' learner, on the other hand, uses simultaneous processing and takes a wider, global view of the learning material or problem situations, he looks for wide-ranging links with other materials, sometimes across subjects and makes considerable use of analogies.

It should however be remembered that all learners, especially adult learners, do not use just one cognitive style or strategy based on it. All that one can safely conclude is that learners may be predominantly field dependent or field independent, impulsive or reflective, focussing or scanning, serialist or holist in their cognitive style. A field dependent learner can, when the situation demands, use field independent cognitive style sometimes, but his/her preferred cognitive style would be field dependent. Thus, while learner may normally use or prefer to use a particular cognitive style, they can and do in fact use other cognitive styles. Thus one may safely generalize that while learners may have their preferred cognitive style, the learning strategies or problem-solving strategies they use are situation and task dependent.

7.3.4 Sensory Modalities/Preferences

Leaver (1997) in her book, “Teaching the whole class “ stresses that learners have sensory preferences (or preferred sensory modalities); the most common being visual, auditory, and motor. She further maintains that each of these has two possible variants. What makes this issue complex is the fact that most learners have a primary modality and a secondary modality. Things become difficult for a learner when he/she has a particular primary sensory modality but the teacher uses a different sensory modality for classroom teaching. Let us examine the characteristics of learners with different sensory modalities in detail.

- **Visual learners** learn easily and better through sight. Brightness, size, colour, distance, clarity, frame and symmetry are important to visual learners. Visual learners must see so that they may learn easily. Visual learners may be categorized as *verbalists* (they see words and letters) or *imagists* (they see images i.e. pictures). While learning English, the verbalist will see 'crown' as 'c-r-o-w-n' while the imagist may see 'crown' as 'a king wearing a crown'. In order to distinguish between two homophones e.g. 'son' and 'sun', the verbalist will focus on the middle vowels (i.e. son and sun) but the imagist will associate 'son' with the image of 'a boy standing by the side of his father' and 'sun' with the image of 'the rising sun' or 'the sun in the sky'.

- **Auditory learners** acquire information through sound i.e. the ear gate. Various aspects of sound e.g. pitch, volume, tempo, rhythm, resonance are important for auditory learners. Auditory learners may be aural (they learn by listening to others) or oral (they learn by talking and hearing themselves). Unless the teacher provides these learners with adequate auditory input, they become frustrated and restless in the classroom. Auditory learners reveal their thought and thought processes through their speech. Hence the teacher can easily identify these learners.

- **Motor learners** learn through motor activity. Various aspects of action e.g. frequency, duration, intensity, pressure etc., are important for them. Motor learners may be kinesthetic (they learn through the use of gross motor muscles) or mechanical (they use fine motor muscles to support their learning).

Sensory preferences have an important message for wholeclass teaching. The teacher should provide for visual learners by developing a comprehensive blackboard summary, for auditory learners through his/her talk and for motor learners through activity-based
teaching. The teacher would become ineffective when he/she uses only one sensory modality for whole class teaching.

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1) **What is learning style?**

2) **Name the two components of learning style.**
   a) 
   b) 

3) **List the dimensions of learning styles as proposed by Kauchak and Eggen (1998).**

4) **Categorise the following behaviours as characteristics of (a) ‘field-dependent’ and (b) ‘field-independent’ learners.**
   a) more analytical approach ........................................
   b) more responsive to contextual cues ................................
   c) more active ................................................................
   d) more influenced by social norms ....................................
   e) greater peer-dependence .............................................
   f) less clarity in time and space related concepts .................
   g) more self-directing ...................................................
   h) less pragmatic .........................................................

5) **List any two characteristics of ‘impulsive learners’.**

6) **Describe the following in just one sentence each.**
   a) serialist learners ......................................................
   b) holistic learners ......................................................
   c) scanning ................................................................
   d) focusing .................................................................
As a result of physiological and psychological development, experience of growing up in human society and formal education, children develop abilities to perform tasks that they were unable to do earlier. This growth in ability can be measured and is called 'achievement'. As a result of schooling and interaction with peer group, children's achievement increases with the passage of time. Achievement is broadly categorized into two categories: (a) scholastic, also called cognitive or academic and (b) non-scholastic or non-cognitive. Achievement in subjects taught in school, e.g. languages, mathematics, science and technology, informatics etc. is part of academic achievement. On the other hand, achievement in social-interaction skills and in various performance areas e.g. sports, games, dance, music etc. comes under non-cognitive achievement. In technical sense however, the term 'non-cognitive' is a misnomer because there is hardly an area of human learning in which cognition i.e. thinking does not play a major role. While academic achievement is heavily dependent on cognitive skills, achievement in non-academic i.e. non-cognitive areas is also considerably influenced by them (i.e. cognitive skills). Traditionally, academic achievement has been rated higher than non-academic achievement because admission to and performance in higher education, especially professional education, depends upon higher academic achievement. However, excellent performance in non-academic areas e.g. games and sports and other performing arts is in no way inferior to high academic achievement, and it has come to be recognized so in all countries now.

It is widely believed that a person displaying high academic achievement would perform equally well in other areas too. This is however, not true fully. It is observed that children do not perform equally well in different curricular subjects. For example, one who displays above average academic achievement in math and science may show just average achievement in languages and drawing and sketching. Correlation between achievement in mathematics and English is generally between 0.5 and 0.6, and thus does not support the conclusion that one may be measuring the same underlying ability or abilities in the two areas.

7.4.1 Factors that Influence Academic Achievement

Let us now consider some of the factors that influence academic achievement. These factors can be broadly classified into two groups viz. (a) learner-related (internal) factors; and (b) external factors. We shall first examine learner-related factors.

Intelligence is widely believed to play a key role in academic achievement. One would however do well to remember that intelligence is not a uni-dimensional construct. Gardner (1993) put forward the idea of multiple intelligences. He described that human beings may have as many as seven types of intelligence, namely linguistic, musical, logical-mathematical, spatial, bodily kinesthetic, interpersonal and intrapersonal intelligences. It would be exceptional to find a person having equally well developed intelligences of different types. Usually one may have one or two or even three types of well developed intelligences; and be average in a few others and below average in the rest. Gardner's theory can help us to understand why learners perform better in some areas but not so well in others. Learners who have more of a particular intelligence have an advantage in formulating more valid understandings in that area. Michael Howe (1999) in his "A Teachers' Guide to the Psychology of Learning" is of the view that the role of intelligence in one's achievement may be determined by what the learner does mentally.

Language competence of the learner is another factor that influences learning and achievement in many ways. In their capacity to acquire language, human beings are uniquely different from all other species. This has been possible because language helps us to develop a variety of competences; which are beyond the reach of any other species. Language enables us to interact with others, to talk to ourselves, to
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think and reason, to make conscious choices and justify these. It unlocks the treasures of human heritage for us, and it enables us to store and access vast resources of information. Language enables us to live in the present and to transcend it by tapping our past and planning for the future. Most of the human learning is language-mediated. Learners who have well developed linguistic competence enjoy an advantage over others and this is considerably reflected in their achievement, especially academic achievement.

Self-esteem, self-concept, interest, aptitude and motivation are other learner-related factors that influence achievement. Self-concept and self-esteem play a key role in shaping how the learner accepts failure and responds to it. Failure to achieve a particular grade or level of performance may break a learner or steel one’s determination not to give up and make further determined effort. Psychologists now a days make a distinction between an individual’s global self-concept and one’s academic self-concept. They are of the view that it is the learner’s academic self-concept rather than global self-concept that contributes to academic achievement. Motivation takes the friction out of the grueling effort that ensures success. All of us can relive the efforts we made to succeed and enhance our academic achievement. Motivation can help one get over fatigue and even lighten up one’s mood.

Study habits are yet another factor that play considerable role in achievement. Many parents believe that the greater the effort that the learner makes, higher would be one’s achievement. This however is not true. Effort can contribute to achievement to a limited extent only. Its effect is limited by the learner’s learning capacity. Experts believe that the learning capacity determines the ceiling. No amount of effort can increase achievement beyond the learner’s capacity. So far as learner’s study habits are concerned, these have been further described under Section 7.5

External factors that influence academic achievement are of two types: (a) teacher-related; and (b) environment-related.

Teacher-related factors that influence learners academic achievement are:

- acceptance of and caring for learners;
- classroom management and student grouping;
- effective use of instructional techniques; and
- teacher expectations

Educational researchers have observed that teachers who fully accept their students and display a caring attitude towards them do enable their students to achieve relatively more. Acceptance of students implies accepting them given all of their imperfections, physical appearance and faults. Caring is though, a hard-to-defme concept, it can be broadly described as displaying a core concern for the well-being and development of one’s students as human beings.

Positive classroom management can help the teacher to create a favorable learning environment in the classroom. Proper classroom management includes management of time as well. This can be better understood in terms of allocated time, instructional time, and engaged time. Allocated time is the amount of time the teacher or the school specifies for teaching a curricular subject or one of its units. Instructional time is the amount of time available for teaching after routine and administrative tasks are completed. Engaged time is the amount of time during which students attend to and are involved in learning activities.

Time is in fact a resource for teaching and learning. Effective teachers use it to advantage by planning what they would do, in what order and in how much time. They ensure that as much as possible, the allocated time should be used as instructional time and considerable proportion of instructional time is actually used as engaged
time. Beginner teachers and ineffective teachers feel that time should somehow be passed. Wastage of time leads to ineffective teaching. Incidentally, management problems usually crop up during non-instructional time. In well-managed classrooms with high instructional time, discipline-related problems are considerably reduced.

**Engaged time** is in fact the "time-on-task" and it contributes to higher achievement. Engaged time is quite a reliable index of teachers impact on students. A teacher can easily make out whether one's students are indeed involved in learning. Eye contact with the teacher during instruction is a dependable indicator of learners engagement in the task. During individual work, observing student's eye movement can indicate whether they are processing and responding to the learning material. During pair or group work, if students' use task-related language in their interaction, one can conclude that they are engaged in the learning task. Research on engaged time and learner achievement indicates that the relationship between the two is not linear; it is rather complex. High ability learners and low-ability learners differ not only in their amount of engaged time but also in when they go off-task. High ability students first finish their task and then go off-task. Low-ability students, on the other hand, go off-task before becoming on-task, that is they take time to become on-task and also go off-task during the task.

Teachers usually stream out students to form mixed-ability groups; however some teachers prefer homogeneous ability groups, also called 'sets'. While mixed-ability groups are considered desirable from the viewpoint of social interaction, their influence on achievement is mixed. Research on student streaming provides evidence that while high-ability students perform better in 'sets' i.e. homogeneous ability groups, low-ability students perform better in mixed-ability groups.

**Effective use of the instructional techniques** plays an important role in boosting students' achievement. This implies that the teacher should have mastery over a large number of instructional techniques, both teacher-centered as well as student-centered. Besides, the teacher should know when to use a particular instructional technique and with which group of students. The teacher should not only provide effective inclusive education in the whole class settings but also cater for students with different learning styles. The teacher should use various instructional techniques in such a way that he/she is able to provide manageable cognitive challenge to students and ensure that he/she does not use high density concepts and difficult words in an instructional session. Effective use of instructional techniques by the teacher demands reflection on what the teacher does in the classroom, the urge to improve one's practice and to approach one's job with an open mind to be able to learn from other colleagues. It is true that classroom teaching does not have a very high correlation with student achievement but other things remaining constant, effective teaching does make a significant difference in student achievement. Proper time management plays a key role in effective teaching.

**Teacher expectations** also influence students' achievement. It has been observed that when a teacher expects more of one's students, they work harder and try to come up to the teachers expectations. On the other hand, when the teacher does not care much about students' achievement or expects less of them, they perform at a much lower level.

The role of environment-related factors in learner achievement is described in detail in Section 7.7.

### 7.4.2 Learning Capacity

It has already been described that an individual's **learning capacity** acts as a ceiling on one's learning and on the amount (how much) one can learn, and rate of learning. Learning capacity may be described as the total resources that an individual can make available to support one's own learning. Theoretically, no individual can learn more
than what one’s learning resources allow. Most individuals perform at a level far below what one’s total learning resources provide for. Nor does one know of the total learning resources one have and uses. Thus one’s learning capacity can be neither measured nor monitored. It is essentially a theoretical construct that enables us to explain and understand how much an individual learner can learn.

As already stated, learning capacity is a function of one’s mental resources and how one uses them. According to Howe (1999), human learning is particularly influenced by three factors: (a) what mental activities the learner engages in; (b) to what extent the learner repeats what he has learnt; and (c) how the learner builds on one’s existing knowledge. Newton (2000) is of the view that an individual’s learning capacity is a function of one’s mental capacity, which in turn depends on one’s memory. Individuals differ from each other in terms of their mental capacity. Mental capacity decreases when a person is fatigued, highly anxious, distracted or is doing something else at the same time. In other words, maximum mental capacity is not available to an individual all the time. Besides, as storage demand increases, mental resources available for processing further information decrease. According to the information processing theory, young learners can process limited amount of information at a particular age. If they are asked to process more information than they are capable of handling, information overload occurs and processing of information slows down and often becomes erratic.

Check Your Progress 2

Note: Write your answers in the space given below.

1) List three learner-related factors that influence academic achievement.
   (a) ..........................................................................................................
   (b) .........................................................................................................
   (c) ........................................................................................................

2) List three teacher-related factors that influence students’ academic achievement.
   (a) ..........................................................................................................
   (b) .........................................................................................................
   (c) ........................................................................................................

3) Differentiate between ‘allocated time’, ‘instructional time’ and ‘engaged time’.
   Allocated time
   ........................................................................................................
   Instructional time
   ........................................................................................................
   Engaged time
   ........................................................................................................
4) What is ‘learning capacity’?

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5) List five factors due to which the learner’s total learning capacity may not be available to him/her at a particular time.

7.5 STUDY HABITS

"Why do some learners learn better than others"? It is an interesting question because differences in achievement cannot be entirely explained in terms of differences in intelligence. Educational psychologists have tried to answer this question through research. They attribute differences in achievement to three factors: (a) family environment and support; (b) personal motivation; and (c) study habits. One finds many instances of learners whose family environment was far from stimulating and supportive of learning, and yet the individual was able to display exemplary achievement solely because of higher personal motivation and good study habits. In this section we will examine learners’ study habits that can help them enhance their achievement. Chief among these are the following:

Regularity

Psychologists are of the view that it is difficult to achieve accomplishment in difficult areas of skills and expertise in the absence of long regular practice and training. It has been estimated that in order to become a professional player, a musician, a scientist or a mathematician one needs regular practice and training to the tune of 10,000 hours or more. And most of it is solitary practice. Regularity in one’s study can indeed take a person quite far in terms of one’s achievement. Regularity also implies an absence of procrastination i.e. postponing things till tomorrow or the day after.

Focussed Attention

Achievement demands total and sustained attention, ‘focussed attention’ in other words. As teachers and parents, we know how some students sit down with a book in their hands, but their attention flits from one thought to another. Physically, the student is present in the room, but mentally one may be miles away from one’s physical environment. Without focused attention to the task in hand, the time invested cannot be very productive.

Perseverance or Task Persistence

Perseverance or task persistence implies that one continues to make effort to achieve one’s aim even if the task in hand is uninteresting and not much stimulating. In fact perseverance happens to be another personality characteristic viz; the willingness to postpone immediate gratification. You would be aware of students who work on their studies even when it may mean missing their favourite television programme or spending time with friends.
Orderliness and Neatness

When one is orderly and cares for neatness in whatever one does, one is on the highway to perfection. Orderliness and neatness in one's work are big assets as study habits and reflect one's personality and concern for others. One may dash off a letter to a friend in a shoddy hand and forget about how the friend may struggle to read it. Academic assignments and projects are to be read and assessed. Legible writing, orderliness in one's task and neatness in whatever one writes make definitely positive impressions on the teacher. One would however do well to remember that orderliness and neatness are not an end but additional desirable features that enhance the worth of a well-done task; they cannot take the place of a well done task.

7.6 LEARNER AS A MEMBER OF A PEER GROUP

Human beings are social by nature and they always prefer to live in groups. Living and growing up in a group is a powerful medium of socialization. Learners, whatever their age, always enjoy interacting with their age-mates i.e. 'peers'. They may quarrel with one another; they may stop speaking to their friends, and yet they cannot live without them. Injuries and insults are soon forgotten and the joys of playing together, sharing experiences, things and even 'secrets' prove weightier and more attractive. Such is the attraction of the peer bonds that even the dictates of parents are conveniently forgotten and violated.

So far as the processes of socialization and education are concerned, peer groups account for a lot of learning, and they are a powerful agency of socialization. Peer groups may be ‘open’ or ‘closed’; they may comprise members of the same sex (all boys or all girls) or may be mixed. Open peer groups are those that admit new members and their composition keeps on changing because some members may drop out or move away, while others may take their place. Closed peer groups, also called ‘cliques’ do not allow non-members to penetrate them. Their members continue with the same peer group over years and the peer group resists desertion by its old members and admission to new members. Much of what is learnt by an individual depends on the nature and characteristics of the peer group. Research on peer groups has established that:

- peer groups may hinder or facilitate learning depending upon the attitudes and values promoted by it. If a peer group considered greater academic achievement desirable, it will facilitate learning and support academic achievement. If it pooh-poohs academic achievement and brands it as undesirable, then it will hinder learning;

- frequent interaction among peers especially those who are members of a clique can shape each others’ attitudes and behaviour; some cliques have negative view of school and school authorities and they may brand higher academic achievement as a sign of treachery by its members;

- peer groups tend to support a specific set of norms. If peer norms are anti-school, they may undermine a student's resolve to attend class or do homework regularly. On the other hand, positive peer group norms may foster positive attitude towards school, college, attendance and achievement.

- peer groups may reveal gender, race, caste and ethnicity related preferences in selecting its members and may promote such preferences to the extent of fostering prejudices;

- peer groups usually have a status hierarchy within its members; the leader supported by some members may dictate what would be desirable and what is expected of the peer members. Rivalries and jealousies often result from the urge to become “the leader of the pack”.

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Teachers can often use such findings and promote a healthy learning-oriented ambience in the class and the school. This is important, otherwise a peer group may undo the hard work of the teacher. Effective teachers usually support the emergence of open groups and try to see that cliques do not form in their class. Through seating arrangement and judicious work arrangement, they strongly support the development of friendship ties. However, teachers would do well to ensure that through these practices, they do not flout the social norms of the community and keep an eye on what goes on in various peer groups. Secondly, teachers may provide increased opportunities to students to interact with one another through group tasks and collaborative learning. This can promote the development of inter-caste, cross-ethnic and cross-religion friendships. Thirdly, the teachers may ensure that peer pressures do not become anti-academic and they do not hurt the dignity and feelings of any learner. Fourthly, the organizational role of the teacher and the students can strongly influence the classroom social system and ensure that it does not go against academic norms and human values. Fifthly, the assessment and evaluation techniques used by the teacher should be fair as well as objective so that they are perceived to support merit and achievement. Lastly, in integrated settings for providing inclusive education, the teacher can use ‘peer tutoring’ for ensuring greater peer acceptance of the slow learner, the underachiever and the challenged. The manner in which peer tutoring is organized and the purpose for which it is used will ensure that the class group as well as the school community not only accept these learners, but also value them and their contribution.

Teachers can promote national integration through peer groups by supporting the formation of multi-religious, cross-ethnic groups in which members from different sections of the society are accepted and respected in spite of their social disadvantages and disabilities.

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**Check Your Progress 3**

**Note:** Write your answers in the space given below.

1) Briefly describe the importance of study habits in learners’ academic achievement.

   ...

2) Describe the role of ‘regularity’ in learner achievement.

   ...

3) List three study habits other than regularity that you as a teacher would like to promote among your students.

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4) List four characteristics of peer groups you would like to support as a teacher.
   a) ...........................................................................................................
   b) ...........................................................................................................
   c) ...........................................................................................................
   d) ...........................................................................................................

5) How will you promote national integration through classroom peer groups?
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7.7 LEARNING ENVIRONMENT: COMPETITIVE OR COOPERATIVE

Classroom instruction is invariably organized for a group of learners. The sight of one teacher teaching a single student is only an exception. Learner groups may be small or large in size. However it is the amount and nature of learner interaction in a group that defines whether the learning environment is competitive or cooperative. If the individual learner is encouraged or asked to work by himself or herself and treat all others as one's rivals, the learning environment would be competitive. If, on the other hand, learners are encouraged to help each other, discuss and cooperate to support each other's learning, then the learning environment would be cooperative. Till recently, classroom environment in Indian schools has been largely competitive. One often hears of teachers who would spot talent in an individual learner and groom him/her to outperform everyone else. The competitive learning environment was based on the doctrine, "Each one for oneself and the devil take the hindmost". Competitive learning environment promotes cut-throat competition wherein everything is fair so long as it helps an individual put up better performance than others, especially in tests and examinations.

The spread of constructivism has changed it to a good extent. Competitive learning has been gradually replaced by cooperative learning. Vygotsky's (1986) view that social interaction is central to learning and knowledge construction has supported the use of cooperative learning environments. No wonder more and more teachers all over the world now use cooperative learning techniques to provide learners the freedom to develop their own thought and to share these with other learners in the group, their teacher(s) or even their parents. However, the freedom given to learners in cooperative learning environment is in general structured and purposeful. It involves responsibility as well as accountability.

A simple answer to the question "Why should teachers use cooperative learning environment?" is that these work well and students find learning in such environments more interesting and effective. During the last twenty years, researchers have conducted numerous studies on cooperative learning, which have been examined in detail by Johnson and Johnson (1994), Slavin (1995) and Pintrich and Schunk (1996).

Cooperative learning environments are provided to students in mixed-ability learner groups of four to six members. These groups are formed on short-term basis and for accomplishing specific tasks. Other features of cooperative learning environments are as follows:
Each learner group has clear goals and specific objectives for which the group works:

- The teacher provides clear guidelines for behaviour even though the group decides who would do ‘what’ and ‘how’;
- The group works as a whole and performs collectively. Each student’s success depends on the help and participation of other group members;
- Since students are new to this approach, the teacher often guides them initially about what steps to follow and what to do at each step. This guidance provided by the teacher is called a ‘script’ and the cooperation based on it is called “scripted cooperation”.
- The teacher monitors how learner groups are working and whether their interaction and cooperation is geared to task-accomplishment. The teacher also works as a resource and provides critical inputs when the group does not know what to do and requests the teacher to guide them.
- Each member of the group is expected to demonstrate that he/she has learnt how to attain the goal by performing the task. This reinforces individual accountability for achievement;
- Each group, after achieving its goal, analyzes and evaluates in what respects it performed effectively and in what respects it needs to improve its performance. The teacher may assist the group in its self-evaluation.

Cooperative learning environments need to be properly used so that learners may benefit optimally from these and the teachers may attain their planned objectives. Teachers who have developed their skills for using cooperative-learning environments effectively and use these often suggest the following guidelines for promoting the use of cooperative learning by other teachers.

- Form small mixed-ability groups of learners;
- Formulate clear goals for each group and share these with each group;
- Help each group to allot a clear role to each student;
- Monitor how members in each group interact and for what purpose(s);
- Help a group when it is unable to proceed further by providing necessary clue(s) or minimal essential information;
- Reinforce group success;
- Encourage each group to evaluate its success and how it may be improved; and
- Change the tasks given to different groups and also the duration of group work.

Even though cooperative learning techniques used by teachers reveal a healthy variety, most teachers stick to just one or two techniques. Teachers should ideally try new techniques and expand their repertoire so that depending upon the characteristics of learners and educational objectives, they are able to use techniques that work effectively. Student team learning, Jigsaw, Learning together and Group investigation are the four cooperative learning methods used by most teachers. These have been described in detail by Slavin (1995).

Research on cooperative learning environments reveals that using these environments increases learner achievement. However, different cooperative learning methods result in different levels of increase in learner achievement depending upon how well these are organized by the teacher and used by learners. Secondly, their use improves social relations among individual learners and help develop their interaction skills.
Learners who learn through cooperative learning environments have been observed to show greater tolerance for opinions and views that are different from theirs. **Thirdly,** the use of cooperative learning environments reveals greater acceptance of inclusive education and more positive attitude towards the challenged learners in integrated classrooms. **Fourthly,** the use of cooperative learning environments reveals enhancement in learner’s self-esteem, as each learner feels that he/she has contributed to group success in some measure. However some researchers (e.g. Snyder and Sullivan, 1995) have found that even though the use of cooperative learning is considered an effective way of developing learners’ knowledge, it often fails to promote their conceptual learning. Therefore, teachers may not like to transact the entire curriculum through cooperative learning only. Nevertheless, they can use it as a major strategy to support student learning and help develop their skills to work with other students and promote each other’s learning.

In spite of the obvious differences between competitive and cooperative learning environments, we know that some learners perform better in competitive learning environments than in others. This holds good especially for relatively advanced learners. These learners enjoy freedom to learn as much as they can and try to learn as fast as they can; they love to go as far as they can and explore while they learn. They also like to lead others and show them how one can look at a problem in more than one way. Surely, there are many others who learn better in cooperative environments. Thus an effective teacher may provide competitive as well as cooperative learning environment to one’s students depending upon their strengths, weaknesses, preferred learning styles and personality characteristics. We should remember that in spite of making these inputs available to one’s students, the teacher may have to provide for individual learning (see Section 7.9).

**Check Your Progress 4**

**Note:** Write your answers in the space given below.

1) Describe the basic difference between competitive learning and cooperative learning environments.
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2) What is a ‘script’?
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3) List any three benefits to students when they learn in cooperative learning environments.
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4) List any major shortcoming of using cooperative learning environments.
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These days, children grow up and live in a mass media dominated world. In the developed world, they live in a mass media saturated world. In this section we will examine learners from mass media perspective. Mass media are mainly three types: (a) print (b) radio and (c) broadcast television, but not closed circuit television (CCTV). These mass media appeared and developed in this very order: the print was invented first and the television the last. Radio and television are also called electronics-based mass media. These mass media are used for teaching as well, but that is not our concern here; our focus in this unit is on the learner.

Print mass media has permanence about it; it continues to exist and enables the learner to revisit and reuse it whenever one feels like doing so. For years, both radio and television have been considered ephemeral i.e. short-lived because the sound and images once heard and viewed, vanished without leaving any trace. The invention of storage devices e.g. audiotape or cassettes and video cassette, floppy, compact disc (CD) and dense video disc (DVD) has given us the technology to record radio as well as television broadcasts and use these later with the help of retrieval devices. Storage devices have extended the life of messages delivered through electronic media and given them near permanence. Of the three mass media, print and radio are based on a single sense i.e. sight in the case of print and hearing in the case of radio while TV involves the use of sight as well as hearing. Thus it can be said that print is a visual mass media, radio an audio mass media but TV is an audio-visual mass media. Print mass media include newspapers, magazines and general books.

All mass 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 mass media. Proper use of the media requires the use of well developed media-specific skills. When these skills are not well developed, the message may be misinterpreted or uncritically received, accepted and responded to. For using mass media constructively, learners need to learn how to critically interpret combinations of words, pictures, maps, diagrams and specialized symbolic expressions. They need to understand the different conventions in framing, communicating and interpreting messages through different mass media and in different genres of fine arts. This sets specific goals for education and teachers are expected to address these issues/tasks.

In the absence of the mass media specific skills, learners may misinterpret or uncritically accept the messages the mass media seek to convey. Aware and critical learners can use mass 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.
- As curriculum support.

The mass media can be used to support various types of educational systems. Electronic mass media are in a way the lifeline of open distance learning systems. They can be used in the face-to-face system as well, but students and teachers need to be properly trained for effective use of mass media.
Television as a mass media needs to be used with caution because indiscriminate viewing of many TV programmes can adversely affect the attitudes and values of learners. Parents and teachers may try to inculcate one set of attitudes and values, but the excessive and uncritical viewing of TV programmes by learners may completely undo their (i.e. parents' and teachers') efforts. Soft pornography promoted by various private TV channels may incalculably harm young viewers. Some TV programmes especially those on Discovery, History Channel, National Geographic, Animal planet, and occasionally on Doordarshan National and DD Bharati are extremely informative and can help viewers develop a concern for environment, ecosystems and society in general. A constructive use of mass 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 a real asset. Mass media can provide a glimpse of alternative possibilities and help learners reconstruct a new map of knowledge, with greater focus on powers of synthesis and intellectual analysis.

7.9 INDIVIDUALISED LEARNING

We have learnt through various sections in this unit that learners differ from each other in many ways, and these differences need to be provided/catered to by all conscientious teachers. Individualised learning provides the answer to the needs and individual differences of all learners.

As teachers, you would do well to remember that in a strict technical sense, all learning is essentially individualized because of the mental processes one may use and the learning capacity one may have. Even when students are members of a small working group or attending the teacher’s lecture in a whole class setting, they learn individually, each one for oneself. Learning can never take place by proxy. What is actually stored by a learner in one’s memory would depend upon how one structures the new information and how does one link it up with one’s previously acquired knowledge. However, most teachers have to provide individualized learning because learners differ in terms of time they take for learning something to a predetermined level of mastery. Another reason for providing individual learning practice to students is the pace at which a learner can learn comfortably. Educational psychologists believe that without individual learning practice, ‘automaticity’ and ‘unitization’ cannot be properly developed. Since these terms are related to specific concepts, let us describe these in brief. ‘Automaticity’ refers to the processes becoming so deep-rooted in the learners’ long term memory that they do not have to think and make any conscious attempt to respond to certain stimuli or situations. Articulation of the proper sounds of a language, writing various letters of the alphabet, reciting multiplication tables etc. are ready examples of automaticity. One often has to overlearn in order to achieve automaticity. Individual learning practice is the most effective technique for enabling students to achieve automaticity. However, individualized learning sessions have to be supervised by the teacher in order to ensure that correct learning indeed takes place.

‘Unitization’ refers to the blending together of facts and procedures into response sequences that can be actually used for problem solving. Unitization thus is the process of integrating various facts, concepts and processes so that a person is able to work more effectively for solving given problems. Unitization, like automaticity, has to be initially developed under teacher’s guidance.

So far as techniques of providing individualized learning are concerned, self-instructional materials and Keller plan are two widely recommended strategies. However, we are concerned here with techniques that the teacher can use in the classroom without depending upon or making use of a specially developed instructional materials and strategies. The following classroom techniques have proved useful for most teachers and they may serve you well:
Individual Worksheets: These worksheets are developed by the teacher and the tasks listed on each sheet are pitched at the ability level of the individual learner and his/her current level of achievement in the concerned subject. For example, if a student is weak at working out square roots of more than four-digit numbers, then the tasks listed on his/her worksheet would address this weakness and will be graded in such a manner that he/she is able to get over this problem to a considerable extent. Similarly, if a student is poor at transforming given simple declarative sentences into their interrogative forms, then the tasks listed on his/her individual worksheet will help him/her in achieving correct transformations of given sentences. Preparing individual worksheets for providing such desirable practice often involves considerable table work for the teacher. The school administration has to provide necessary time to the teacher to accomplish this task and plan these inputs for each learner.

Differentiated seatwork: Students working at different achievement levels and with different abilities are given different tasks as their seatwork. While this technique is obviously helpful for each learner, the teacher has to spend more time to develop a list of such differentiated and graded tasks. One must remember that differentiated seatwork does not mean differentiated syllabi for learners. Differentiated seatwork should therefore be tied up with and must lead to the attainment of the objectives of the lesson/unit.

Differentiated Home Assignments: These are based on graded questions that enable learners to receive extended practice on classroom tasks. These questions are of a difficulty level that enables the learner to attempt them independently at just a notch above his/her current level of achievement. Framing a set of these differentiated home assignments is certainly more time consuming for the teacher.

Individual Learning Plans (ILP): While individual worksheets enable all learners to follow the group learning plan, individual learning plans imply that each learner is given freedom to learn a subject according to one’s pace, ability and the sequence best suited to him/her. This means greater teacher inputs, more teacher time and overall more teachers in the school. If the school management chooses to provide individual learning plans to all students in the school as a policy, then it may lead to higher tuition fees. Another drawback of this strategy is that all students do not get the opportunity to learn a full rich curriculum within the same session.

These are the four major techniques that most teachers have found workable as well as effective. Whatever the technique used by a teacher for providing individualized learning to one’s students, it would always demand more time than the whole class teaching. The problem of enabling learners to learn the full curriculum would need to be addressed differently. The individualized learning sessions need to aim at developing automaticity, otherwise learners’ peculiar weaknesses will spill over from one topic to the subsequent ones. Unitization should also be an aim to be attained through individualized learning sessions. If unitization is not attained, the unit objectives and consequently the subject objectives may not be fully realized by the learners.

Check Your Progress 5

Note: Write your answers in the space given below.

1) List four possible uses of mass media by learners.
   a) .................................................................
   b) .................................................................
   c) .................................................................
   d) .................................................................
2) List any two skills that teachers need to develop among their learners to enable them to use mass media constructively and critically.

a) ................................................................................................................

b) ................................................................................................................

c) ................................................................................................................

d) ................................................................................................................

3) In what respect can learners benefit from the use of mass media?

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4) Why do teachers need to provide individualized learning to their students?

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5) Describe ‘automaticity’ and ‘unitization’.

Automaticity ..........................................................................................................
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Unitization ........................................................................................................
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6) List four techniques that you as a teacher can use for providing individualized learning to your students.

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7) Describe ‘individualised learning plan’ as a technique for providing individualised learning to students. What are its shortcomings?

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7.10 LET US SUM UP

We have discussed in this unit six perspectives on learners. Different learners display different preferences in terms of their learning styles. Field-dependence vs. field-independence and impulsivity vs. reflectivity are two major dimensions of learning styles. Field-independent learners approach problem-solving in a more analytical manner. Field-dependent learners are more global in their approach. Reflective children while solving a problem review the possibilities and tend towards the abstract in their preferences. Impulsive children act intuitively and usually try out hypotheses by testing them in reality. Other cognitive styles are focusing vs. scanning and holistic vs. serialist.
There are learners who have preferred sensory modalities for learning (visual, auditory or motor). Visual learners learn easily and better through sight. Auditory learners acquire information through ear gate. Auditory learners may be aural (learning by listening to others) or oral (learning by talking and hearing themselves). Motor learners learn through motor activity. Academic achievement of the learner is influenced by factors like intelligence, language competence, self esteem, self concept, interest, aptitude, motivation and study habits. There are external factors that influence the achievement of the learner. These are of two types: (a) teacher-related and (b) environment related. Cooperative learning environments increase learner achievement. But some learners perform better in competitive learning environments. Another external factor that influences learning is the mass media. It offers alternative possibilities and help learners reconstruct a new map of knowledge, with greater focus on powers of synthesis and intellectual analysis. Since learning is influenced by one’s own internal as well as external factors, individualized learning should be provided to meet the needs and differences of all learners.

### 7.11 UNIT END EXERCISES

1) Identify your students according to their learning styles.

2) Choose a topic of your choice and plan activities for individualized learning.

3) Create cooperative and competitive learning environments in your classroom. Examine the impact of different learning environments on learner achievement.

### 7.12 REFERENCES AND SUGGESTED READINGS


