
UNIT 14 DECISION-MAKING AT MICRO-LEVEL

Structure

- 14.1 Introduction
- 14.2 Objectives
- 14.3 Concept of Decision-Making and its Related Aspects
 - 14.3.1 What Does Decision-Making Mean?
 - 14.3.2 Why is Decision-Making Important?
 - 14.3.3 Sound Knowledge Base and Effective Decision-Making
- 14.4 Stakeholders and their Involvement in Decision-Making
 - 14.4.1 Involvement of Learners
 - 14.4.2 Involvement of Schools
 - 14.4.3 Involvement of Teachers
 - 14.4.4 Involvement of Community
- 14.5 A Rational Model for Decision-Making
 - 14.5.1 Problem Finding
 - 14.5.2 Problem Stating
 - 14.5.3 Option Finding
 - 14.5.4 Deciding
 - 14.5.5 Taking Action
 - 14.5.6 Evaluating Action
- 14.6 Areas of Decision-Making in Educational Institutions
- 14.7 Intuitive Decision-Making
- 14.8 The Role of Ethics in Decision-Making
- 14.9 Let Us Sum Up
- 14.10 Unit-end Activities
- 14.11 Points for Discussions
- 14.12 Suggested Readings/References
- 14.13 Answers to Check Your Progress

14.1 INTRODUCTION

True education means having our fingers at the pulse of the society, knowing the society's needs and aspirations and providing the same with the best of opportunities for developing knowledge, skills and dispositions required for realizing those needs and aspirations. A close scrutiny of the trend of growth of knowledge, its application and the impact that it makes on the lives of the people at large can enable us find tentatively what knowledge, skills and dispositions today's learners require as adults and on the basis of which we have to make decisions pertaining to their education. Decision-Making in education, as in any other domain of life, is as important as in any other sphere of human life. Just as the quality of our lives depends on the quality of the decisions we make, the quality of education depends on the care with which decisions pertaining to education are being made. It is so vital an aspect that we can seldom afford to overlook it.

In the previous units, you have learned about decision-making with respect to planning, implementation and evaluation of curriculum. In this Unit, we are mostly concerned about decision-making at micro level. We shall discuss at some length what decision-making is, why it is important and what prerequisites are necessary for sound decision-making. We shall also discuss how learners, school, teachers and community are involved in the process. In addition, we will discuss about the different spheres in which decision-making is of utmost importance. We shall also discuss among other things one of the popular rational decision-making models. We also discuss major functional areas of a school where decisions are made by the head teacher and the teachers we shall also discuss briefly about intuitive decision-making and the role of ethics in it.

14.2 OBJECTIVES

When you have studied this unit, you should be able to:

- define the concept of decision-making and explain its importance;
- explain how sound conceptual bases can lead to effective decision-making;
- discuss the importance of the involvement of the stakeholders in the decision-making process;
- name the different spheres in education wherein decision-making is most required and why;
- examine a model of rational decision-making and use it for making decisions or solving problems that you confront in life;
- Identify different functional areas of a school where decision-making takes place;
- highlight what intuitive decision-making is and state under what conditions it may be resorted; and
- expound the role of ethics in decision-making.

14.3 CONCEPT OF DECISION-MAKING AND ITS RELATED ASPECTS

Decision-making is a part and parcel of our everyday life. Be it in the domain of home, work or study, we confront several situations in which decisions are to be made. Our quality of life, to a great extent, depends on the quality of the decisions we make. When it comes to the domain of education, it is no exception. While educating our students, at every step, we have to make decisions. Often we confront situations wherein uncertainty, doubt or difficulty prevails. Simple or complex, important or unimportant, there are problems for which we need to make decisions. Before we proceed further, we need to know what decision-making means, why it is important as well as the type of conceptual bases decision makers require for being able to make sound decisions.

14.3.1 What Does Decision-Making Mean?

In the process of educating the youngsters of our society, we confront several problems. Problems are simply some state of affairs that we must change in some way in order to get what we want. In such situations, we need to apply our ability to think for the solution of the problems we confront. If we have problems, we are blocked in some way or other from reaching a solution. Our goals cannot be directly reached because of

the obstacle in the way. The obstacle may be a block in carrying out a process or a procedure for reaching the goal. Likewise, the problem may be some difficulty in arriving at a decision pertaining to an instructional outcome or content matter to be taught or the manner it could be taught, etc. Many problems do not have a single or final solution. Such problems, as Fisher (1990) calls, are “open search problems.” No single method can guarantee the right answers to such problems. In that case, from among a variety of possible solutions, we have to choose the “best fit.” In that case, the solution becomes not right or wrong but the best among possible options.

Decision-making, in short, is required when some sort of discrepancy between some current state of affairs and some desired state require consideration of alternative courses of action. Any problem, however simple it may be, requires to be analyzed and studied in detail before solutions are arrived at. We have to resort to a premeditated decision-making rather than an accidental decision-making. Understanding problem and arriving at some sort of decision involves two distinctly different kinds of thought processes, namely convergent and divergent thought processes. Divergent thinking consists of expanding the picture of the problem by stating the problem in various forms, looking at from different points of view, and generating various options for solving it. In fact, divergent thinking elaborates the issue and makes sure that we have enough understanding of the problem before we proceed to make decisions. Convergent thinking is just the opposite. It narrows down the problem into something manageable. It zeroes in on that which is pertinent. It magnifies the options found relevant, analyze them and evaluate them as a preliminary step towards making choices. decision-making is thus choosing a course of action from among several well-defined and frequently competing alternatives after due deliberation and careful consideration of all recognizable facets of the problem.

14.3.2 Why is Decision-Making Important?

We have by now discussed what decision-making is. Now we need to discuss a bit as to why decision-making is very important in education.

In the process of education, there are many situations wherein we find confusion. In the face of such confusion, unless we rise to the occasion and come out with proper solution, conditions might escalate and as a result, accomplishment of goals may become difficult. If problems are not solved, goings can become tough. With it, anxiety and despair might set in and make situations insurmountable. Every problem has its time when it ripens and requires action. Knowing this and intervening at the appropriate time can save a lot of strain and stress. Unless we confront problems and take on them in proper time, they may assume monstrous dimension and make going rocky. Instead of leading us to attainment of goals, it may stand as impediments in our way and take away the joy that attainment of goal accompanies.

These are days of self-learning, open learning, and life-long learning. In their attempt to pursue these, individuals can face many a block. They may have difficulty in setting learning outcomes, deciding the content or matter to be learned, what resources to be exploited, what techniques, methods or strategies to be employed in their pursuit for knowledge and skills and how to find out whether or not they achieved what they intended to achieve. All these questions involve decision-making. Unless individuals know how to make decisions in the face of difficulties and set themselves free from confusion they are in, their pursuit for being educable and autodidactic may turn out to

be an exercise in futility. This may cause a lot of problems, which, in turn, can lead them to give up their effort toward self-improvement and progress. Knowledge and awareness about decision-making can enable them to continue their effort unabated even in the face of problems.

Education of the youngsters is a collective responsibility of all the stakeholders. Learners, teachers, parents and the community have a vital role to play in it. Explosion of knowledge and its application, sophisticated styles of living, international interdependence, mobility, globalizations etc have made education a complex process. It is so complex that if left to teachers and institutions alone to take care of it as we did in the past, quality of education might continue to suffer. If we want quality education, all the concerned need to put not only their heads but their hearts together and come out with solid decisions pertaining to education, plan and execute various strategies. As they move along, confusions and difficulties might set in. They may find it difficult to come out of the rut and may be tempted to follow the trodden path. If they wish to take instruction out of the rut and bring about modernization and progress to the fore, they need to learn how to make collective decisions and cooperative implementation of their decisions.

14.3.3 Sound Knowledge Base and Effective Decision-Making

Decision-making in education is indeed a very complex process. It is easier said than done. It takes a vast knowledge base if one is to make sound decisions concerning matters of education. Education as a discipline cuts across many an area of knowledge. Philosophy, sociology, psychology and other related disciplines integrate to give shape to the discipline of education. The deeper a person has grasp over these areas of knowledge, the better she/he is in a position to make decisions pertaining to education. Any decision made without having recourse on its perspectives can go awry and may prove to be ineffective. Hence anyone who wishes to be a decision-maker in education needs to build up a wide conceptual framework with respect to education before he or she ventures into decision-making. It would, therefore, be imperative on the part of everyone to know what understandings, beliefs, skills and dispositions a decision-maker requires for making sound and rational decisions.

Knowledge seldom comes easily. Each major advance in human knowledge is dearly won. It takes years of painstaking study to penetrate the frontiers of knowledge. The less we know of education, the less are our chances in making sound decisions. However, with or without appropriate knowledge, decisions have to be taken. They cannot be avoided. Educational decision-making can be viewed as ranging over a continuum. At one end of it are decisions made on the basis of no evidence (irrational) and on the other end decisions are made with all needed information. Most decisions fall somewhere between these two ends. How intelligently decision-making is done depends on a person's knowledge and how it is used. As Fitzgibbons (1981) notes, intelligently made decisions are always based upon beliefs. How intelligently we make our educational decisions, he continues to note, will in large measure depend upon what we believe about education and how we base our decisions on those beliefs. These beliefs comprise what is often called a philosophy of education. A person's philosophy of education, according to Fitzgibbons usually contains two distinct kinds of beliefs, namely (i) empirical beliefs and (ii) philosophical beliefs.

An empirical belief is a belief that in principle can be confirmed by reference to data derived from observation and experimentation. Empirical belief explains a state of affairs, with the presupposition that the description or explanation can in principle be confirmed by exclusive reference to the data derived from observation and experimentation. When people make decisions concerning the manner, matter or outcome of education, their empirical beliefs often play a significant role.

The philosophical beliefs that accompany empirical beliefs in a person's philosophy of education can be characterized as meta-physical, epistemological, logical and normative. Metaphysical beliefs deal with questions concerning reality as a whole. Metaphysics tries to explain everything that exists. It is a study of Being as a whole. Metaphysics deals with all that exists, not just a particular part of what exists. Epistemological beliefs are beliefs concerning the nature, limits or conditions of knowledge. Logical beliefs are another important aspect found in a person's philosophy of education. A necessary condition for making a logical or rational decision is that you have some reasons that you believe to support your decision. The belief that your reasons support your decision is a logical belief. Normative beliefs are the other aspect that falls under philosophical belief of an individual. It is belief which convinces you that something is good or bad, right or wrong, ought to be or ought not to be done, etc. Everyone concerned with education ought to have some normative beliefs about its manner, matter and outcomes.

When an individual possesses all these beliefs—empirical, metaphysical, epistemological, logical and normative, he or she is in a position to make sound decisions pertaining to education. In the absence of a fair range of these beliefs, our decisions are bound to fail.

Check Your Progress 1

Note: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1) What is the meaning of decision-making?

.....

.....

.....

.....

.....

2) Why is decision-making needed in the process of education?

.....

.....

.....

.....

.....

.....

3) Mention the beliefs needed to make a sound decision?

.....

.....

.....

.....

.....

14.4 STAKEHOLDERS AND THEIR INVOLVEMENT IN DECISION-MAKING

When decisions are made, there are more possibilities of their being effective, if all the stakeholders are involved. Traditionally decisions are made at the top and then they are passed on to the subordinates who are supposed to implement them. This type of decision-making and action taking has its own limitations. When decisions made by higher authorities are given to subordinates for execution, they are not likely to implement them with all the seriousness required. On the other hand, if subordinates are made participants in the decision-making process, they are likely to see decisions as their own and do all what is within their capacity to see it through. In domains such as education, therefore, it is necessary to involve all the stakeholders in the decision-making process. To be successful, cooperation from everyone involved is a welcome note particularly in complex domains such as education. Success in education in the literal sense is possible only when all the stakeholders namely students, school, teachers and community are involved in the decision-making process.

14.4.1 Involvement of Learners

Students are the direct beneficiaries of education. It is for them that the schools are built, infrastructure is set up, teachers are appointed and curriculum is developed and transacted. It is for them that teachers present various learning experiences both inside and outside the classroom so that they might construct their own knowledge. However, it may be noted that students especially those at the primary and the secondary level, are not in a position to decide as to what they should learn, how it should be learned and what the outcome of their learning ought to be. Students at these levels by their very nature have little knowledge of the world as their exposure to it is short and their experiences with it are limited. This, however, does not mean that no decisions should be made with respect to their education. We are left with no choice but making decisions on their behalf as they need to be educated despite their inability to make decisions.

Several scholars have made attempts to study the development of children. Piaget, for instance, has devoted his entire life in studying their development. He has come out with four stages in the intellectual development of children, namely (i) the sensory motor stage, (ii) the intuitive stage, (iii) the concrete operational stage and (iv) the formal operational stage. He demarcated not only the various stages but also explained what children are capable of understanding at each stage and what they can perform. Similarly, scholars have laid down their findings and observations with respect to how children learn, how they forget, what factors facilitate their learning and what hinder it, etc. Similarly, they have made note of what children are generally interested in learning. We have, thus, a rich fund of knowledge and information with regard to their learning

and education. On the basis of these, we can decide what they should be taught, how they should be taught and what ought to be the outcome of their learning. As a result of their education at the primary and the secondary level, children pick up a general awareness about the world in general and the environment they live in.

As children complete their secondary education, if they have had the right sort of exposure and opportunities for learning, more or less, they may be able to decide their future course of study. Their achievement scores, their aptitude, their liking etc may give them sufficient cues for their decision as to what stream whether science, commerce, arts, technical education they should join. At this stage if children make their own decision pertaining to their education, it would be better rather than parents and others doing so on their behalf. What parents and others at the most could do at this stage is to facilitate their decision-making. They could point out to their children in unambiguous terms the advantages and limitations of each option open to them and let children make the right choice for themselves.

At the level of higher education, learners should be in a position to decide for themselves what course of studies they should follow. At this stage, they are in a better position to know about themselves, their liking, their aptitudes, their calibres, their prospects etc. Decision-making on their own is what is expected of learners of today, for these are days of self-learning, open learning and life-long learning. Any individual who wishes to pursue any of these modalities of learning as well as those who follow the formal system has to decide what she or he should learn; what goals ought to be set? what resources should be exploited; where can they be found; what methods or strategies should be followed; what information and skills to be gathered; how can this information be stored; how can he or she find out whether or not the goals set are realized; thus these are decisions an individual learner has to make when he or she is in the pursuit of learning.

Apart from making personal decisions pertaining to the outcome of their education and matter as well as manner of education, learners also have to play the role of participants in collective decision-making. There are issues in education where all the stakeholders should join in making decisions. For instance, when it comes to setting up infrastructure, collecting funds, making optimum use of the resources available etc, all the stakeholders can join hands in making collective decisions. Students should have their due share in making decisions in all these areas.

14.4.2 Involvement of Schools

A school has several decisions to make with respect to the running of the organization. It has to decide in fairly specific terms what the school intends to achieve. School should take into account the needs of all the stakeholders namely the learners, the parents, the staff, the community and the nation. In the case of students, the school has to decide how it can create students who are creative, independent and self-assertive. How can it equip the mind of the students with correct values and attitudes required for peaceful co-existence and harmony? How can the students be made both willing and competent to serve the society? How can a constructive attitude be inculcated in them for civic responsibility? How can interest and skills needed for learning be promoted in them? How can they be provided opportunity for participation and contribution to their culture? How can an environment that encourages development of leadership qualities and independent skills within a culture of tolerance be created? Thus, there are the decisions that the school has to make with respect to the education of the students.

Activity

A school as an educational organization has to make several decisions to satisfy the needs of the students, the staff and the community. Write down in the space provided below three such decisions in each of the given areas.

Decisions to satisfy Students

- 1)
- 2)
- 3)

Decisions to satisfy Staff

- 1)
- 2)
- 3)

Decisions to satisfy Community

- 1)
- 2)
- 3)

As you proceed further into this section, you may find most of the items you have given by way of response.

In addition to the needs of the students, the school has to be sensitive to the critical role the school staff plays in achieving school objectives. In fact, how well the students perform depends upon the quality and competence of the teachers. Hence the school has to think as to how it can create an environment that enables both the students and the staff to experience success. The school also has to make decisions as to what facilities, equipment and materials are required to facilitate attainment of school objectives. Again, the school has to decide what kind of organizational structure is needed for allowing both students and staff to realize their expectations. In addition, the school also has to decide what provision of opportunities should be made available for the professional growth of the staff.

Apart from those of the students and the staff, the school has to make decisions pertaining to the needs of the community as well as the nation. It has to make decisions to do whatever is in its capacity to fulfill the expectations of parents for their children. Parents and community expect of the school to promote good citizenship, respect for community values and help students pick up skills and knowledge that enable them to stand on their own feet. In addition to the above, the school cannot lose sight of the national goals. The nation expects of schools to make decisions as to how human resources can be developed, how a common national identity can be promoted, how respect for the dignity of labour can be built and how students can be made self-reliant.

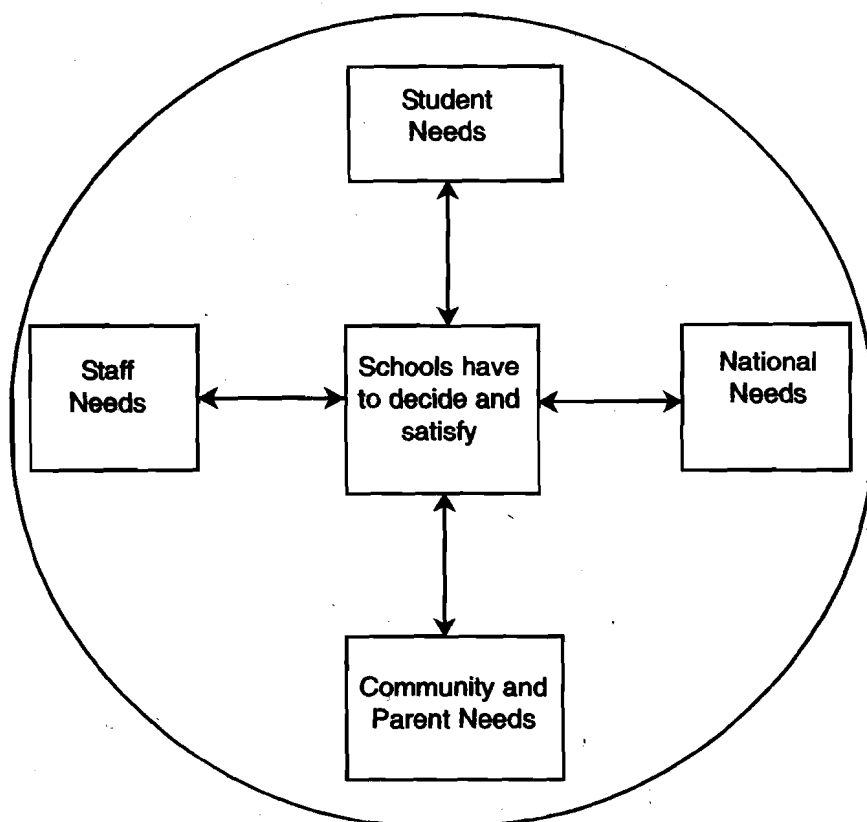


Fig. 13.1: School Needs and Decision-Making

14.4.3 Involvement of Teachers

In general, the school plays significant role in setting the immediate conditions within which teachers make decisions. What type of learning experiences should be presented for the learners to construct their knowledge and skills? Is developing a positive self-concept more important than mastery of content matter? How should students be taught? How are classrooms to be organized? What kind of discipline should be demanded? How much and what kind of subject matter be emphasized? There is no end to the decisions that teachers are called upon to make in their day-to-day functioning as teachers.

Activity

Either as a student at various levels of education or as a member of staff of an educational organization, you are familiar with the various decisions that teachers are supposed to be making. Write down in the space provided below any five decisions teachers generally make with respect to instruction.

- 1)
- 2)
- 3)
- 4)
- 5)

It is sure you would come across most of the items that you have just jotted down as you continue to study this section.

Although other stakeholders may be involved in the decision-making process, the ones who are mostly responsible for the implementation are the teachers. This is so because they are the ones who are trained for this purpose. Even when decisions regarding the outcome of education are made, teachers' role is most dominant. They begin by studying their society, its present status with respect to various aspects of its culture. They study the pace with which it accepts changes and gets itself modernized. Looking at the rate at which the society progresses, they will decide what sort of life the society will have in five, ten or fifteen years time and what would be the characteristics of the people then. In general what teachers do is to examine the society as it is and then consider what it ought to be. Then on the basis of the strongest evidence of which they are currently aware, they identify those characteristics that currently have to be preserved, modified or eliminated. They may find that there are some characteristics that the society ought to have. They also examine from time to time the decisions they made about the outcome of education by reassessing their decisions in the light of additional evidence from reading, discussion and continued study.

Hand in hand with others, teachers have to decide not only the outcome of education, but also the matter of education as well as manner of education. The outcome of education will generally point out what the matter of education should be. It will show what knowledge, skills and dispositions learners need to build up for realizing the specified educational outcome. A skill has to do with the ability to do something. If someone has a skill he should be able to demonstrate it. Just like knowledge and skills, building up disposition is another important aspect of matter of education. A disposition is a tendency to do something. Disposition may generally be classified into three major categories, namely (i) dispositions of thought, (ii) disposition of behaviour and (iii) dispositions of emotional attachment. Like knowledge and skills, dispositions are something that can be improved.

Apart from making decisions pertaining to outcome and matter of education, teachers have to make decisions concerning manner of education- the ways in which any matter could be taught. While making decisions regarding manner of education, teachers must have some good reasons for believing that the same is an effective one. The effectiveness of manner or the methodology used depends upon the degree to which it is capable of achieving the intended outcome. Determining effectiveness of a certain strategy requires a demonstration of the outcome it is capable of producing. If a number of students, for example, taught spelling through phonetics ensures good spellers, there is enough reason to believe that the method is good in producing children who are good spellers. This method is known as the Method of Agreement and it is based on the identification of a particular outcome that has occurred in several instances.

Another way to decide on the appropriate methods of education is gathering evidence for beliefs concerning their effectiveness. Quasi-experiments in which two groups, comprising one control and the other experimental can determine the effectiveness of one method over another. Today, many people employ scientific methods to find what methods of teaching are effective in achieving certain outcomes. They also publish their findings in scholarly journals and books. They may be used as evidence of effectiveness of various manners of education. It is better to act on partially substantiated beliefs about the effectiveness of a manner than to act on unsubstantiated beliefs. When faced with difficulties, teachers may take decisions that will make things easier for them. Too often teachers make poor decisions concerning manner of education without

having serious and rational consideration for other alternatives. They accept the greater part of the current manner of education. They may uncritically assume that these aspects of the manner of education cannot be changed or that they are the best decisions that could have been made. Both the above assumptions can overtly restrict the range of further decision-making.

Whatever decisions teachers take with respect to the matter or manner of education may be subjected to review regularly. This is true not only for the new decisions they make but also old ones which may still influence effectiveness. In addition to focusing on decisions they personally make, teachers also need to engage in rational dialogue among themselves and with others concerning the broad decisions those tend to limit the range of possibilities open to them. There are quite a number of alternatives concerning the manner of education. When decisions are taken with respect to a particular manner, it does not necessarily imply that it is the best decision made. And even if it were good when the decision was made, changes in the society may have now made it obsolete. What is important is that we should not let our past decisions unreasonably restrict us in our examination of the alternatives concerning the present and the future.

14.4.4 Involvement of Community

No school is an island in itself. Schools exist in an established social system. The school cannot exist apart from society. Consequently school personnel must work with people, agencies and organizations in the community so that the school is sustained. The pupils for whom schools exist are the community's primary interest and responsibility. They have a moral right and obligation to understand what the school is doing for their children. The community's very survival is dependent upon what happens to its children. Schools exist to foster the development of children. When school personnel and community agencies work in collaboration, chances of development of students are much brighter.

Activity

As a member of the community, you are quite familiar with different resources available in the community whose exploitation can help schools in enhancing their system of education. Write down in the space provided any five of such resources which you think can enhance education.

- 1)
- 2)
- 3)
- 4)
- 5)

As you continue to go through this section, I am sure you will come across most of the questions you have raised.

Parents and the community need to understand the changing world and how schools are working for providing students with the skills needed for success in 21st century. Progressive schools co-operatively plan their educational programmes with parents and the community whether at the school site or as support to their children at home. Parents

know their children better than anyone else. Children spend more time at home than in school. Parents get more time to be with their children, watch and interact with them. This gives them ample opportunity for knowing their aptitudes, talents, dispositions, their dreams and even their fears. Knowing what they are and what they are capable of, parents can provide children with necessary scope for their development. Parents may interact with teachers so that they know more details about children. This would enable teachers to provide children with appropriate learning experiences that suit them best. This would engender self-esteem, confidence and love for learning, which, in turn, can lead children to success.

In the community, we find several agencies and forces such as the family, recreational activities, mass media of communication, religious centers, etc which act to develop the child. The school is simply just one of many educative influences in the child's life. Effective education of the child is thus a cooperative endeavour in which the school plays a selective role. This role should be enacted in cooperation with other agencies, which influence the child's education. Unless this cooperative atmosphere prevails, the influences of the various agencies may be at variance and even counteract one another. If all the stakeholders join hands in providing quality education, schools can improve society. They will also help children understand, maintain and perpetuate culture. The community would then realize that changes brought about by schools not only affect children but also the community at large.

Community is quite rich in educative resources that can vitalize and enrich the instructional processes in the schools. Several informal agencies such as the market places, the farms, religious centers, playgrounds, etc. can provide wide range of contexts for learning to take place. There are several areas in the community that can serve as spots for trips. Apart from these, the community has several educative agencies like museums, zoos, arts galleries, community centers, village panchayats, other self-government bodies and cooperative organizations which all have tremendous educational potential that often go unacknowledged and unrecognized. Quality education depends on how well decisions are taken to utilize these resources for providing children rich exposure to the environment in which they live.

In the community, in addition to the above, there are a large number of knowledgeable people. Training personnel in various unions, social workers, doctors, dentists, lawyers, businessmen, athletes etc have specific knowledge and skills related to their professions and occupations, which remain untapped. Such people in the society form a network of teachers in life and if exploited and utilized, can provide children with a lot of real skills and practical knowledge. A dentist, for example, can teach the students how to keep their teeth neat and strong. An athlete can teach them how to keep their body strong and well shaped. How well these resources are exploited for providing children quality education depends on the intelligent decisions and actions taken by the school.

Education is a community venture with schools. Instead of blaming one another, the various agencies in the community should collaborate with the school. Business, for example, is an important segment of community. Business needs workers who can access, process and use knowledge in the solution of complex problems while working as members of a team. Needs of business have become more sophisticated. Instead of pointing the finger in blame, business should provide positive support through business partnership allowing employees to speak and train students or funding to support the development of technology to schools. Business wants technology-literate workers. In

case, schools are found wanting in computers and other more advanced technologies, business should make up for this deficiency. This would be one of the best ways for business to help boost school change.

Schools today are complex organizations to manage. We now recognize the difficulties of providing for a wide range of abilities and interests among students and the challenge of providing them with relevant usable skills for them to succeed in an increasingly complex society. A good number of studies suggest that learning activities embedded in social interaction engender more comprehensive understanding. One of the benefits of collaborative learning is not simply the accumulation of the knowledge of individual members but also social interaction which gives rise synergistically to insights and solutions that would not come without them. Structures and meaning that did not exist in isolated or disconnected activity emerges via the social system. Hence, making optimum use of community resources for enhancing excellence is an important aspect of education today. Administrators and teachers need to decide and plan adequate strategies for exploiting the community resources for enriching students in every possible way. A committed partnership among parents, business and the community is a need of the day. Continuous improvement depends on teamwork.

Check Your Progress 2

Notes : a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

4) What is the need of involvement of learners in decision-making?

.....

.....

.....

.....

.....

.....

.....

5) What are the needs schools have to decide for and satisfy?

.....

.....

.....

.....

.....

.....

.....

.....

.....

- 6) Differentiate between decision-making by a teacher in matter of education and in manner of education?

.....

.....

.....

.....

.....

- 7) Why should community participate in decision-making process of the school?

.....

.....

.....

.....

.....

14.5 A RATIONAL MODEL FOR DECISION-MAKING.

So far we have discussed at some length what decision-making is, why it is important, and how learners, parents, administrators, teachers and the community at large can be brought into the area of decision-making process with a view to enhancing the quality of education. Now let us proceed to discuss one of the most commonly used rational models of decision-making. The term Rational refers to choices that are consistent and value maximizing. A rational decision-making model describes how decisions can be made in order to maximize outcomes. As already seen, decision-making occurs when there is a discrepancy between some current state of affairs and some desired state requiring consideration of alternative courses of action. Every decision requires interpretation and evaluation of information.

One of the important models available to us for making decisions is that of Albrecht (1992). It has two phases, namely the expansive phase; and (ii) closure phase. Each of these has three steps. The Fig. 14.2 presents the different steps in the model.

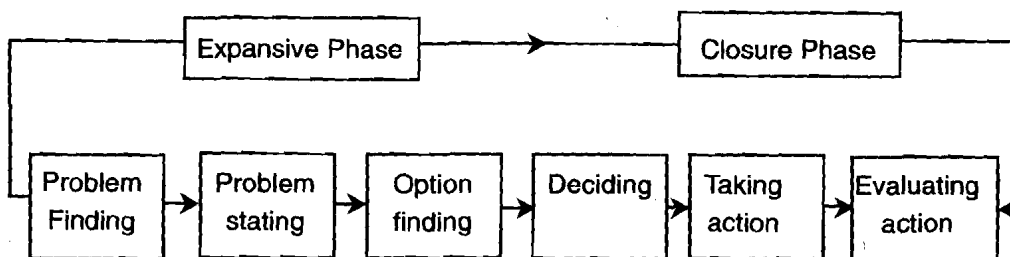


Fig. 14.2: A Rational Model for Decision-making

Every decision requires interpretation and evaluation of information. Data that are collected from multiple sources, need to be screened, processed and interpreted. As decision-making or problem solving is a complex process, in order to shed sufficient light, each step needs to be explained briefly.

14.5.1 Problem Finding

We have to develop the habit of looking to the future and identifying possible spots that can turn out to be problematic where decisions have to be made. We need to think about issues that eventually require action. We need to find problems before they snowball. If we maintain vigilance, most of the problems can be nipped in the bud before they assume monstrous dimensions. Despite all the care, problems might crop up at any time. When problems strike procrastination may not work. In that case problems might deescalate and lead to situations that are beyond our capacity to control. So there is a need to find problems as they arise and intervene before it is too late.

14.5.2 Problem Stating

If we are to get grips with problems, we need to define them. As a matter of fact a problem well stated is a problem half-solved. Unless we size-up problems, we may fail to have a grasp over them. So we have to subject each problem to thorough exploration so as to see all its dimensions in their proper perspective. We need to define it by describing its features in detail and examine the causes. Making a list of facts related to the problem as we explore can help us to understand it better. This will give us ideas as to what is happening. The more closely we look, the deeper the understanding it yields. We have to think of as many possibilities of plausibly stating it as we think up. This will enable us avoid limiting ourselves to a fixed angle of attack. We need to state the problem in such a way as to be easier to grasp, to visualize easier to break down into its component parts, easier to think about in terms of options to solving it.

Problem stating involves verbalizing the various aspects of the problem as widely as possible. We have to keep the real objective in decision-making behind us. The objective, as Mc Grath (1996) notes is always "How to get from here (the actual situation) to there (the ideal solution). You define an objective by listing the factors in the present situation that you find undesirable. Then list operatively and present the qualities of the ideal situation that is what you would like to happen. Mc Grath advises us to state the objectives always in "How to..." terms. Such as "How to cut absenteeism from seven per cent to five per cent? The definition of the objective should be solution free. It should not contain any unexamined assumptions.

14.5.3 Option-Finding

Once the problem is found and it is stated, the next step in the decision-making process is option-finding. Option-finding consists of a conscious effort in producing as many divergent ideas as possible that would serve as potential solutions. In the absence of this, as Albrecht (1992) notes, problem solving can degenerate to snap reacting with the most familiar solution or the one with the stamp of tradition and force of habit. What we need is a good inventory of attractive potential solutions. In case we lack sufficient options, we need to employ some block bursting techniques such as brainstorming, hypothesizing causes, restructuring the situation or shifting the point of view, etc. Each of these techniques has the potential to stretch your imagination to find unlikely ideas. We need to make a conscious effort to generate alternatives beyond

the obvious ones. The natural tendency of the mind, as de Bono (1994) notes, is towards certainty, security and arrogance. The mind works as a pattern making and pattern using system. It wants to recognize and identify with certainty as soon as possible. Several options allow us to look at the problem more broadly. If we are unwilling to look for alternative, we may remain trapped in the past or in what we have always done before. When confronted with situations that are confusing, the mind works to make sense. As soon as it arrives at a familiar pattern, it would stick to it and follow it along. In such situation, one has to force oneself to investigate every conceivable option before a choice is made. The more the interesting and viable options, the greater is the scope for solving the problem. This does not mean that one should wait for the ultimate alternative. There should be some practical cut off. However, it should be remembered that the quality of your final decision will be proportionate to the number of options you consider.

14.5.4 Deciding

During the option finding steps, we generated as many options as possible. It is not possible to follow up all these alternatives. We need to make certain decisions as to the best alternatives. As Galotti (1999) notes, this process by which a processor selects one course of action from among alternatives is decision-making. Decision-making, as Galotti continues to note, is a task that requires *gathering, organizing, combining and evaluating* information. When faced with several alternatives, we require some sort of probability estimate even if only vague or intuitive one. We need to examine each option by weighing the pros and cons of each in the light of our objective. If consultation is called for, we have to consult before decision is taken. We may encourage honest dissent and disagreement. There are many possibilities of going wrong or being sub optimal. Decisions are made in the face of some amount of uncertainty. However, at some point, we have to decide. Problems cannot be solved without decisions being made. We need to look carefully at our options, deliberate, consult with others if called for, and then bring logic and intuition to the fore. Weigh up each option and award points on numerical scales to classify thoughts. Select the best that we have found in our evaluation of the alternatives. We have to select the one, which is most likely to provide us with the result we want.

14.5.5 Taking Action

Making a decision and leaving the problem at it, will not lead anywhere. We need to translate the decision into action. If others are involved in the process, we have to let them know what has been decided so that they can help us in implementing it successfully. To convert the decision into action, we need to plan what has to happen and then put the plan into action. Making a plan of what needs to be done plays a key role. Most problems remain unsolved not because they are difficult but because no proper action is taken. If the action is to work, we need:

- to make a list of the tasks that need to be done;
- to determine any barrier that could get in the way (for example, lack of skills, resources) and rectify as best as we can; and
- to allocate specific tasks to individuals and coordinate the work.

If things are to go well, when we draw up our plans, we have to set out what we want to happen, who will do it and by when. We have to have a clear idea of our course of action

and follow on it. We have to make sure that our action works well. Once we have a clear idea of what we want to do and a plan for getting it done, what needs to be done is to pay persistent attention to do the necessary things.

14.5.6 Evaluating Action

The last step in the process is to find out the effectiveness of the action taken. We need to find out the disparity between the real effect of the action and the expected outcome. We need to find our progress to make sure that we are on line and our solution is working out in practice. By comparing what is happening with what we expected to happen, we can keep track of how things are happening. In case things are not going as per our plan, we need to find out the hitches and make adjustments to the plan if it is not yielding the expected outcome.

14.6 AREAS OF DECISION-MAKING IN EDUCATIONAL INSTITUTIONS

Decision-making is a part of human life. It takes place in all kinds of activities a human being undertakes and in all kinds of situations he/she is associated with. Decisions are made in the family, in the religious places, in the governments, in the village panchayat, in businesses, in hospitals and in educational institutions like schools, colleges, and universities. We discuss a few functional areas of a school where decisions are taken. These are discussed in the following paragraphs.

Curriculum Planning and Transaction

Curriculum planning involves decisions pertaining to what to teach and how to teach. What to teach is associated with what contents are to be selected to be taught to students. While deciding the contents, decisions regarding goals and objectives of the course/curriculum, the nature and need of the learners, the nature of the subject of study or discipline are to be made. How to teach involves the process of transacting the curriculum, which includes planning and delivery of classroom instruction. Planning for classroom instruction includes deciding about instructional objectives to be achieved, the amount and the nature of content to be covered, the kinds of audio-visual aids to be used, class size, nature of the learners, kinds of questions to be asked, kinds of interactional modes to be adopted, and the feedback mechanisms to be used etc. Decisions pertaining to delivery of classroom instruction involves introduction to the topic, explaining the content matter, citing examples, providing analogies and illustrations, using questions using various teaching-learning media, summing up etc. Curriculum transaction also includes providing students a variety of learning experiences outside the classroom during games, sports, field visit, study tour, participation in community activities etc. In both planning and transaction of curriculum, teacher has to make decisions. We have discussed about curriculum transaction in details in Unit 12, Block 3.

Management of Resources

Gone are the days when educational institutions were having text-books, a blackboard, and a classroom of students. Now a teacher finds a plethora of instructional resources or instructional media at his/her disposal. These resources include several projected and non-projected media, computer and emerging technologies. These resources range from radio, television, OHP to computers, internet, email and tele-conferencing. A teacher

has to make a judicious decision to select the right kind of media. The factors affecting the selection of appropriate media for teaching a specific content are discussed in Unit 12 of Block-3. Apart from deciding about the learning resources, decisions are to be made by the head of the school regarding different material resources like use of school building for various purposes, use of school furniture, use of school premises, school playground and other infrastructure of the school.

The third component of school resources constitutes financial resources. Decisions related to financial resources concern with income and expenditures of a school. The major headings of income of a school are student fees, government grants, donation/gifts, sponsorship, PTA support and activities done by students. The items of expenditure are salary to teachers and supportive staff, conduct of examination, construction and repair of school infrastructure, equipments purchase and maintenance, teaching aids purchase of stationery, books for library, purchase of computers, advertising, health check-up, organization of extra-curricular activities, paying electricity bills, telephone bill, taxes, etc. The head teacher and the teachers of the school take part in decision-making pertaining to all aspects of financial resources.

School resources also includes the human resources of the school. There are mainly the teachers, the students, and the support staff. Engagement of human resources optimally and effectively requires a lot of decisions, which need to be made by the school authorities.

Classroom Management

A teacher while transacting learning experiences has to encounter a number of situations when he/she has to make decisions. These situations may pertain to classroom indiscipline, classroom fairness, freedom of the children, rewarding good performance of students, providing corrective measures to undesirable performance of students, understanding of classroom dynamics, etc.

Management of Co-curricular Activities

Apart from classroom instruction, a teacher as well as the head teacher of school have to make decisions regarding different kinds of co-curricular activities. Decisions are made regarding suitability of different co-curricular activities like debates, elocution contests, quiz, dramatics, dance, music, study tour, community work, health campaign etc. A teacher makes decisions about identification of talent among students, organization of different co-curricular activities in advance, organization of educational tours, exhibition, field trips etc. organization of marring assemblies, organization of sports, games etc.

Management of Examinations

Conducting examinations is an important activity of a school. Before an examination is conducted, the authorities have to make a number of decisions-these decisions are related to the dates, place and time of examination. The decisions regarding paper-setter, examination and evaluators have to made. The procedures of preparing a question paper are also to be decided. The number of invigilators, the logistics in the examination hall are also to be decided. After the examinations are over, student answer books are to be evaluated and student results are to be reported to different beneficiaries like students, parents and others.

14.7 INTUITIVE DECISION-MAKING

Despite all attempts to make a decision in terms of a rational model, it may not be always possible to arrive at the best alternative. The facts may be limited and may not point a clear way to proceed. In that case, we may rely on our basic instinct—a feeling we have that something is right, a gut reaction or hunch. Hunches can have as much validity as a decision based strictly on logic. Intuitive decision-making, as Robbins (1998) puts it, is an unconscious process created out of distilled experience. Some thinkers consider it as an extra sensory power or the sixth sense. It does not necessarily operate independently of rational analysis. In fact the two complement each other. And yet some others consider it as a personality trait that a limited number of people are born with. In the past, people were reluctant to go for intuitive decision-making, as it was difficult to show how it is backed by rational assessment. In addition, logical decision-making was considered more respectable and reputable.

Now it is considered perfectly right to resort to intuitive decision-making, if the rational models fail to show the ways. Robbins (1998) points out clearly when one could take to intuitive decision-making. According to him, we could use it:

- i) when high level of uncertainty exists and there is little precedent to draw on,
- ii) when the facts are limited and do not indicate a clear way to go,
- iii) when there are a number of plausible options from which to choose,
- iv) when variables are less scientifically predictable,
- v) when facts are limited,
- vi) when analytical data are of little use,
- vii) when there are several plausible alternatives, and
- viii) when time is limited and there is pressure to come up with the right decisions.

As the list above indicates, several are the occasions in which we may resort to intuitive decision-making. It is always better to go for a decision than not to go for it. When situation is too confusing to find a solution, intuition is perhaps the only way to take on.

14.8 THE ROLE OF ETHICS IN DECISION-MAKING

An important aspect which needs to be considered while taking decisions is the question of morality. We cannot, for example, decide the manner of education solely on the basis of its potential for producing outcome but also upon the morality of the manner itself. When using any method or manner of education, apart from the question or its potential, we need to look into whether or not the use of that manner violates any moral principle. To prevent children from misbehaving or avoiding failure to submit assignment in time, a teacher may take recourse to harsh measures. However, before resorting to them, we have to consider whether or not anything is immoral or illegal about doing this. Does it violate the moral principle of respect for children? Does it deny the principles of human dignity and worth? The question that arises here is whether or not teachers refrain from using it regardless of its effectiveness in achieving certain results. The general principle that needs to be borne in mind is that a particular manner of teaching may be immoral because it violates certain moral principles.

There are certain manners of teaching, which, though effective, are to be avoided. For instance, various forms of indoctrination such as brainwashing, hypnosis and emotional manipulation are effective ways of teaching certain things. But at the same time, as they are immoral, they may not be used. On the other hand, techniques that involve an appeal to the rationality and respect for the learner as a person, though far less effective ways of teaching, may be chosen as they are moral. In conclusion, it may be noted that if any decision involves what seems to be immoral, regardless of its consequences and desirability, it ought not to be employed.

Check Your Progress 3

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

8) What are the steps in decision-making process?

.....

.....

.....

.....

9) What are the major functional areas of decision-making in a school?

.....

.....

.....

.....

.....

14.9 LET US SUM UP

This unit discusses decision-making at individual, institutional and societal level. Decision-making is choosing a course of action from among several well-defined and frequently competing alternatives after having studied all facets of the problem. When we find certain amount of discrepancy between the prevailing state of affairs and some desired state, problems exists making it necessary to make decisions to arrive at the desired state. In education, all the stakeholders need to be involved in decision-making if education of students is to be effective. However, in actuality, the most obvious decision makers in education are teachers and administrators. They make decisions as to what should be the matter and manner of education and what the educational outcome ought to be. They generally make decisions based on philosophical beliefs, observation and empirical evidence. However, as such decision-making has its own limitations, it would be worthwhile if stakeholders have understanding about some model of rational decision-making.

They should have also understanding of major functional areas where decisions are made in a school. In addition, they ought to know when they can resort to intuitive decision-making. They also need to know the question of morality when it comes to decision-making in education.

14.10 UNIT-END ACTIVITIES

- 1) Visit a secondary school in your locality and interview the Headmaster and a few teachers and a few students of the school. Your interview should focus on the kinds of problems they face in their day-today functioning at the school and what decisions they make to solve the problems. Prepare a report on your interview.
- 2) Talk to the members of the Village Education Committee (VEC) in your village or locality and get to know how they participate in the decision-making process of the village primary school.

14.11 POINTS FOR DISCUSSIONS

- 1) What do you think are the specific spheres in education where in decision-making is deemed to be unavoidable? Why is decision-making important in education?
- 2) What bases of knowledge do decision makers in education need to be proficient in? What benefits do they stand to gain as a result of their proficiency?
- 3) Without genuine involvement of all the stakeholders concerned, no educational institution will be able to provide quality education. Discuss.
- 4) What does intuitive decision-making mean? Under what conditions can an individual resort to this type of decision-making?
- 5) What steps does Albrecht's decision-making model involve? How far do you think this model can be of help in making decisions pertaining to education?
- 6) What does ethics mean? What role does it play in decision-making in education?

14.12 SUGESSTED READINGS/REFERENCES

Albrecht, K. (1992): *Brain Power: Learn to Improve Your Thinking Skills*, New York: Simon & Schuster,

De Bono (1994): *de Bono's Thinking Course*: MICA Management Resources (U.K.) Inc.

Fisher, R. (1990): *Teaching Children to Think*, Oxford: Basil Blackwell Ltd.

Fitzgibbons, R.E.(1981): *Making Educational Decisions*, New York: Harcourt Brace Jovanovich, Inc.

Galotti, K.M. (1999): *Cognitive Psychology in and out of the Laboratory*, Bangalore: Wads-worth Publishing Company.

Mc Grath, E.H (1996): *Basic Managerial Skills for All*. New Delhi: Prentice Hall of India Private Ltd.

Robbins, S.P. (1998): *Organizational Behavior*, New Delhi: Prentice Hall of India Private Limited.

14.13 ANSWERS TO CHECK YOUR PROGRESS

- 1) Decision-making means choosing a course of action from among several well defined and frequently competing alternatives after due deliberations and careful consideration of all recognizable facets of the problem.
- 2) Decision-making is needed in the process of education to accomplish the goals of education set by the society.
- 3) An individual needs empirical, metaphysical, epistemological, logical and normative beliefs to make a sound decision.
- 4) Involvement of learners at the school and higher education institutions in decision-making process is important as most of the decisions made in these institutions pertain to their learning, adjustments, interests, aptitudes, future course of studies and employment.
- 5) The four needs schools have to decide for and satisfy are needs of the students, staff, community and the nation.
- 6) Decision-making by a teacher pertaining to matter of education includes knowledge, skills and dispositions learners need to build up for realizing the pre-determined educational outcomes. On the contrary, decision-making concerning manner of education comprise the process of transaction of learning experiences using different methods and media.
- 7) School is a part of the community as the children in the school come from the community. The survival of the community is closely linked with the kinds of decision made in the school. Hence, the decision of the community in the decision-making process of the school is required.
- 8) The steps in decision-making are problem finding, problem stating, option finding, deciding, taking action, and evaluation of action
- 9) The major functional areas in which decisions are made in a school are curriculum planning and transaction, Management of resources, classroom management, management of co-curricular activities and management of examination.

UNIT 15 INSTRUCTIONAL SUPPORT PRACTICES AT MICRO-LEVEL

Structure

- 15.1 Introduction
- 15.2 Objectives
- 15.3 Why Instructional Support at Micro Level?
- 15.4 Instructional Support in Conventional Education Context
 - 15.4.1 Library
 - 15.4.2 Seminars
 - 15.4.3 In-Service Education of Teachers
 - 15.4.4 Cluster School System
 - 15.4.5 Institutional Collaboration
 - 15.4.6 Community Support
 - 15.4.7 Guest Lectures
- 15.5 Instructional Support in Open Distance Learning Context
 - 15.5.1 Use of Information and Communication Technology
 - 15.5.2 Learner Support Services
- 15.6 Agencies Involved in Instructional Support
- 15.7 Let Us Sum Up
- 15.8 Unit-end Activities
- 15.9 Points for Discussions
- 15.10 Suggested Readings/References
- 15.11 Answers to Check Your Progress

15.1 INTRODUCTION

Besides classroom teaching by the teachers, educational institutions, either conventional or the open distance learning systems (ODLS), adopt various learning/instructional support practices to effect learning in students. Instructional support practices help the teachers and students achieve course objectives effectively. In unit 13 you have studied about decision-making at the micro level. You have studied the concept, importance and pre-requisites for effective decision-making at the micro level. In addition, the involvement of learners, schools, teachers and community in the process of decision-making has been discussed in Unit 13.

In this Unit you will study the various instructional support practices being used in both the conventional as well as the open distance learning systems. In the conventional classroom-based teaching system the support services, such as library, seminars, cluster schools, institutional collaboration, community support and guest lectures can be used at the micro-level. In open distance learning system we depend more on the application of information and communication technology to reach the learners. Some instructional practices such as library services, seminars, institutional collaboration etc are used in both the conventional and the open distance learning systems. Besides, in this Unit you will study about the agencies/organizations involved in providing instructional support both at the macro and micro levels. Hope that you will enjoy reading this Unit.

15.2 OBJECTIVES

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

- explain the need for instructional support at the micro level;
- describe the role of library, seminars, cluster school system, institutional collaboration, community support and guest lectures as instructional support practices;
- assess the potential of information and communication technology in making open distance learning (ODL) system effective; and
- discuss the role of various agencies in providing instructional support at the micro level.

15.3 WHY INSTRUCTIONAL SUPPORT AT MICRO LEVEL?

As you know, besides teaching either in classroom or at a distance, the learners need instructional support to achieve their course objectives. They look for additional learning support to properly comprehend/assimilate what is taught to them. For example, library is the lifeline of any institution where the learners refer to the relevant literature for deep learning and widen the horizon of their thinking. Similarly, organizing guest lectures on contemporary issues helps learners to know different perspectives of the problem. In other words, you will appreciate that along with the teaching by the teachers the learners need additional learning support to develop relevant concepts. This is one of the reasons that educational institutions provide various instructional supports to facilitate learning of their learners. We shall discuss some of the instructional support practices in this Unit.

15.4 INSTRUCTIONAL SUPPORT IN CONVENTIONAL EDUCATION CONTEXT

As you know, educational institutions adopt a variety of instructional support practices. We should now discuss some of the important support practices in both the conventional and open distance learning system in this unit.

15.4.1 Library

As we all know, library provides an effective instructional support and thus plays an important role which is necessary to achieve the course objectives. In fact school library is the most effective support resource of providing materials and services for resource-based learning. Library helps the learners become autonomous by way of independent and self-study. In other words, library facilitates learners to develop the skill of self-paced and self-learning where they learn to retrieve, evaluate and organize their learning independently. They acquire problem-solving skills through the path they follow to solve instructional problems. Thus the library plays multiple roles, such as a teacher, instructional partner, information centre and learning manager. The learners need to make library skills part of their life.

Developments in ICT have changed the shape and use of libraries. In 1990s educational organizations installed microcomputers in libraries and thus made efforts to provide

library services to all those learners who had access to the computer. There is an emerging trend now-a-days that the learners prefer to use Internet (digital library) more than the printed books in the library. It reflects a wider use of library as a resource for teaching and learning. The learners therefore have started perceiving resource as integrated library equipped with computer facilities. The policy is, and remains, that all services should be made available from the computers connected with the library resource. Thus with the increased use of ICT in library, the educational input could become more accessible to learners within and outside the institutions. Again, the print and non-print resources are electronically linked with other libraries / agencies and database. As a result, now library resources are being made available online which are being used as virtual classroom where the learners are not bound by the four walls of the library facility. Thus the concept of library without four walls is getting attention of content providers, learners and research scholars with the increased use of information technology in libraries, educational institutions, home and community. Collection of print and non-print resources are being linked electronically.

We can conclude that through critical inquiry in using library resource we construct knowledge/wisdom which is the ultimate objective to be achieved through education. Through library resource we gain deep knowledge and share their knowledge with creativity and confidence. With creative use of library we can understand the concepts better and can construct knowledge base; can form our own ideas on and give meaning to a particular concept.

15.4.2 Seminars

Seminars are yet another instructional support that provide opportunities for us (both as teachers and learners) to engage in an organized discussion on a particular topic/problem. In seminars one or more learners present a prepared paper to the rest of the fellow learners and subsequently throw the topic open for discussion. Unlike lectures, seminars are not organized to give information only. These are small group discussions under the guidance of the teachers in which the learners are encouraged to explore various aspects of the topic (s) being discussed/deliberated. By actively participating in the discussion, we develop our own ideas and thus create a motivating learning environment in which everybody learns new ideas or forms opinion on the issue.

Seminars develop various skills in us, as teachers and learners. The skill of active listening, speaking, thinking, arguing, accepting others' views, etc. can be developed. Through seminars we advance argument and put our view in a more convincing and systematic way. As a by-product, seminars create closer relationship among the learners and develop mutual respect and shared understanding among them. The basic features of a seminar, thus, are as follows:

- Group presentation keeping in view the quality of content, presentation skill and use of media.
- Listening to the presentation and questions/queries/issues.
- Discussion/argument on the topic being deliberated, including generation of interest, effectiveness of questions, leadership behaviour.
- Summing up/group assessment (conclusion and performance of every learner).

In the entire process of teaching-learning through seminar, the teacher plays the role of a facilitator/ guide and allows the learners to manage the whole session.

To ensure that the seminar is effective and meaningful, we should not make the presentation comprehensive; leave more room for discussion and sharing views. We should raise issues in our presentation so that a constructive and productive discussion is generated. In other words, the presentation should generate high order thinking/discussion among the learners.

We have to ensure that the seminars are organized in a way that the learners gain optimum from their participation. For this to happen, the learners should be well aware of the objectives of the seminar, time frame, method to be followed and the outputs. They (the learners) should go well prepared. They should analyze relevant materials and take note of the issues, views, arguments, etc. in advance. They should make up their mind to raise issues or ask questions of various types and levels related to the topic. At the same time we should prepare them to argue with the fellow-learners based on facts, case studies, illustrations, etc. Maintenance of discipline and order is a paramount feature of an effective seminar.

During the conduct of the seminar, we should ensure that the learners are involved in high order thinking (analysis, application and synthesis of arguments). All the learners should get opportunity to participate in the discussion. This is a challenge before us because some learners may be introvert and feel shy about speaking in public, gathering or in a classroom, expressing their views and arguing logically before others. They should listen to other learners' ideas/views and arguments and provide healthy criticism of what they think weak argument. The learners should be motivated to take note of important points and prepare a report on the discussion after the seminar is over.

At the end of the seminar, you should assess your performance as a facilitator. You may ask certain question to yourself such as; did you encourage the learners to ask questions, raise queries and argue? Did the learners listen to presentation and discussion attentively? Could you give input for new insights, etc?

There are various factors such as inadequate preparation, inadequate time for presentation and discussion (including weak communication skills), inability to summarize arguments/views, lack of clear conclusion, lack of discipline, etc. which may render the seminar unsuccessful. We have to keep all these factors in view while planning and conducting seminars.

15.4.3 In-Service Education of Teachers

This is the age of information explosion/revolution. The old concepts and practices are changing at a fast rate. As a result we can say that one-time training is not going to serve the very purpose in one's career. It is the case with teachers who need periodical training in all the areas, such as content up-gradation, innovative pedagogy, and contextual issues. Teacher education institutions, including National Council for Teacher Education (NCTE) have focused on recurrent training of teachers at both the primary/elementary and the secondary/senior secondary school levels. It is obvious that in-service education empowers teachers to effectively teach and, hence, help students learn optimally.

Sarva Shiksha Abhiyan (Education For All) has provision for recurrent training of teachers both at the time of recruitment (60 days) and annual in-service education (20 days) for every teacher at the primary/elementary school stage. District Institutes of Education and Research (DIETs) have been created by the Govt. of India to impart pre-and in-service education of teachers at the primary/elementary state. Similarly, University Grants Commission (UGC) has set up Academic Staff Colleges to empower the college

and university teachers in content, pedagogy and contemporary issues related to higher education. Institutes of Advanced Studies in Education (IASEs) are engaged in re-current training of teachers at the secondary stage to impart quality education. Indira Gandhi National Open University is also engaged in offering in-service teacher education to un-trained working teachers at various levels.

15.4.4 Cluster School System (CSS)

The CSS is a network of schools, which provides instructional support to the member schools. The network facilitates quick exchange of ideas, access to developments and innovation in schools which feel supported intellectually and professionally (Dittmar, Mendelsohn & Ward, 2002). Such clusters exist in many countries including India, Malawi, Myanmar, Thailand, Vietnam, Nigeria, Zimbabwe etc. The clusters in some countries are being used as resource centres for training of teachers. According to Dittmar, et. al. (2002), a school cluster is a group of schools that are geographically as close and accessible to each other as possible. Some management structures support the cluster school system. Through the network the schools in the region can keep up with changing needs of the community they serve and can sustain improvement. The main objective of clustering schools is to accommodate all needs of grouping schools in one stable framework. According to Dittmar, et. al. (2002), such clusters can serve two main purpose: first to improve teaching by sharing resources, experience and expertise among staff; and second, to facilitate administration and to pool resources from several small schools. Clustering is important because there is great demand of quality education.

Usually schools in most of the countries function in isolation whether they are located in neighborhood or not. These schools have little contact with other schools. Most schools/teachers prepare and present their lessons in isolation. The teachers do not share ideas with teachers of other schools who are engaged in the same activities. Each school interprets the syllabus differently and prepares different schemes of curricular and co-curricular activities. The main functions/benefits of cluster school system are as follows (Dittmar, et al., 2002).

- i) **Improving the quality of teaching and learning:** The clusters break the spatial and psychological isolation of teachers. Many teachers do not get any opportunity to undergo in-service training. In cluster system the teachers get opportunity to get together to share and discuss developments and innovative practices in their schools. Moreover visiting each other's schools in the cluster creates a culture of sharing and mutual support. Good teaching practices and resources are shared with other schools in the cluster;
- ii) **Management applications:** The cluster can improve the management of education. The clusters work through participatory decision-making process. Many decisions are taken at the cluster level in a more decentralized way. Other, schools to improve their management practices, can use the good practices, which are well managed in a particular school. This would develop a constructive competitive spirit among schools;
- iii) **Empowerment at cluster levels:** The functioning of schools in a cluster brings all the stakeholders (teachers, parents, head teachers, community, etc.) together in various collaborative groups. The teachers and head teachers develop competencies as they deliberate upon issues and take faster decisions at the cluster level.

- iv) **Improve efficiency:** In a cluster the communication flows faster and the available resources (such as classrooms, teachers and learning materials) are used efficiently for implementation of decisions as they are taken collectively. Other schools, particularly the rural and remote schools, can avail of the services of teachers in other schools of the clusters.

Based on the discussion made so far we can say that wherever it is geographically feasible, the cluster school system could be adopted to improve quality of education. A cluster management system may be devised to efficiently manage the schools for mutual benefit. If seriously implemented, the cluster school system could become a base for sharing good practices and improving efficiency of member schools. Besides, the cluster system can serve a variety of purposes and member schools can use it to their greatest advantage.

Check Your Progress 1

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one at the end of the unit.

- 1) How is library helpful in the instructional process?

.....

.....

.....

.....

.....

- 2) Enumerate the need for in-service education for teachers.

.....

.....

.....

.....

.....

.....

- 3) What are the main purposes of cluster school system?

.....

.....

.....

.....

.....

.....

15.4.5 Institutional Collaboration

The advantages of collaboration are well recognized. Collaboration is active partnership with some commitment by institutions. It ranges from simple collaboration to strategic collaboration in the area of exchange of information and experience, collaborative development and use of learning/training resources, credit sharing systems, teaching arrangements, research and learning support services etc. (Moran, 1990). Institutions in collaboration with other partners can develop quality teaching-learning materials, which can be cost effective.

Distance education institutions have taken a lead in collaborating with other institutions-conventional as well as open distance education systems. In collaboration, the institutions share knowledge and expertise, (for example, joint research project, designing and delivering curriculum, etc.), infrastructure (for example ICT facilities, etc.), human resource (for example formal engagement of examiners, peer review, etc.), student support services (such as library, learning centres, etc), and costs of starting/maintaining academic programmes (Sharma & Chaudhary, 2003). We can conclude that collaboration is possible in any area, including administration, certification, curriculum design/development, library support, student admission, etc. Needless to say, collaboration provides benefits to all the partner institutions. They can, as mentioned above, share resources and facilitate improving quality of academic processes, such as admission, course design and delivery, learner support services (Sharma and Chaudhary, 2003).

Collaboration can be effected through making consortium of institutions and/or ICT network. There are several examples where institutions came together and formed consortium to achieve agreed upon mission/goal. The consortium is formed to benefit individual institutions. Institutions such as the European Association of Distance Universities (EADTU), Commonwealth of Learning (COL), Distance Education Council (DEC-IGNOU) etc. have formed consortiums to support the partner institutions. Through the use of ICT now it is possible to network institutions of common interest and to jointly develop and implement various educational institutions. As a result all the educational institutions are now engaged in developing ICT capabilities.

15.4.6 Community Support

There is a close relationship between community and school, both support each other. This relationship is reflected in many forms such as parent-teacher associations (PTAs), mother-teacher associations (MTAs), village education committees (VECs), school management committees etc. Under universalisation of elementary education programme the need and importance of community support has been reiterated and focused on more prominently. Community supports schools at both the macro and the micro levels. Special efforts have been made to mobilize community to provide basic facilities, such as school building, laboratory apparatus, furniture, toilets, play ground, etc. In many cases community has volunteered to teach in schools where there is shortage of teachers. They offer enrichment opportunities such as being guest speakers or academic resource and teaching them skills they have expertise in. They support schools in organizing co-curricular and socially useful activities also. Thus through academic (including teaching-learning and evaluation) and co-curricular activities knowledgeable community members come closer to schools to enhance student experiences.

Besides their involvement in non-academic activities since long, under universalisation of elementary education some community organizations have gone a step further and

are involved in what is known as 'academic auditing'. The teachers and the community members meet periodically and assess the performance of the school including the learning outcomes of the children. The school administration and community members monitor all-round progress of children. The community members are apprised of the innovative practices used by the school to impart quality education. The constitution of VECs has generated tremendous interest among villagers. They feel that they now have a stake in the management and running of the school. They are involved in looking into the needs, problems and punctuality of students and teachers. Community involvement has shown some tangible results in terms of increase in enrollment, retention, gender parity etc. In this process the community and schools feel empowered and strengthened.

To increase the access and quality of education the community-based organizations and NGOs can be involved in the establishment and management of schools. Such organizations can facilitate community participation in running schools, particularly primary level schools in rural and semi-urban areas.

15.4.7 Guest Lectures

Guest lectures are useful to the serious learners at all the levels. The eminent persons/speakers are invited to share their views/experiences with the learners who, in turn, get extra input for deep learning. Guest lectures are arranged to widen the horizon of learners, including teachers many of whom are deficient in the area of their discipline. Guest lectures are quite popular in institutions of higher learning, including professional institutions. By arranging Guest lectures educational institutions can overcome the dearth of specialized teachers.

Check Your Progress 2

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one at the end of the unit.

4) Explain the need of institutional collaboration?

.....
.....
.....
.....
.....

5) What are the benefits of community involvement in universalisation of elementary education?

.....
.....
.....
.....
.....

15.5 INSTRUCTIONAL SUPPORT IN OPEN DISTANCE LEARNING CONTEXT

Like the face-to-face conventional education, the ODL system also adopts various instructional practices to support learners' study. Information and communication technology (ICT) has emerged as an important tool to provide quality instructional support to the learners. Various national and international agencies are involved in providing instructional support to ODL institutions at both the macro and micro level. Let us now talk about these two issues: ICT and major agencies involved in instructional support.

15.5.1 Use of Information and Communication Technology

We have seen in the recent past the emergence of the era of information explosion. Various developments have taken place in information and communication technology (ICT). Today's teachers have a variety of means of communication /media to choose from based on the course objectives to be achieved. Beginning with popular media like radio and television now we have access to the sophisticated modern information technologies such as multimedia, computer, Internet, etc. With the help of these information and communication technologies we can reach the un-reached and provide equal access to quality education to them. ICT can bring unique resource to the learner both in formal schools and at home/workplace without any transmission loss in the quality of learning inputs. Intranet and Internet are effective tools through which any information under the sky can be accessed. As a result, more and more educational institutions in the world are being equipped with ICT so that quality education can be imparted to all the learners irrespective of geographical distances and the terrain they belong to.

Due to availability of advanced information technology (IT) many institutions have launched online courses to make them accessible across the world. In schools (particularly in the rural areas) where Internet connectivity is not easily available, interactive multimedia composite discs (IMM-CDs) are being used to improve quality of teaching and learning.

15.5.2 Learning Support Services

In Open and Distance Learning (ODL) system, the learner pursues most part of his/her study being away from both the teacher and the institution. Many of the learners get little opportunity to interact with fellow learners. They therefore look for necessary support to effectively achieve their course objectives. ODL system has provision of various support services, beginning with pre course counselling to providing feedback on their performance. To strengthen learning support services, ODL system creates a network of study/learning centres where the learners can discuss and resolve their academic and personal (related to their study). They can seek information on various processes and operations associated with learning at a distance. Learning support services help the learners follow their learning schedule and successfully complete their study.

15.6 AGENCIES INVOLVED IN INSTRUCTIONAL SUPPORT

There are various national and international agencies involved in improving instructional practices. We shall discuss some of these agencies to sensitize you about their role and contributions in this regard.

- i) **University Grants Commission (UGC):** Sargeant Report (1944) was the first perspective plan for educational development in India. This was followed by certain landmark developments in post independence India. The notable ones include the appointment of i) the University Education Commission (1948-59) to suggest improvements in higher education, and ii) the Education Commission of (1964-66) to advise on the national pattern and on the general principles and policies for the development of education at all stages of education and in all respects. Besides various measures suggested by the Commission, which now form the bases of educational programmes in India, were the establishment of autonomous University Education Committee to coordinate the activities, maintain academic standards and provide financial assistance. (The UGC was established accordingly). The UGC has dual responsibility: one, providing funds and second coordination, maintenance and determination of standard in higher education institutions. Thus, the UGC determines and maintains minimum standards of teaching, examination and research in higher education institutions.

The National Assessment and Accreditation Council (NAAC), an autonomous body under the UGC, has been entrusted the responsibility to assess and accredit higher education institutions in the country. NAAC arranges for periodic assessment and accreditation of higher education institutions including teacher education institutions and stimulates the academic environment for promotion of teaching, learning and research. NAAC also facilitates the higher education institutions in creating and operating Internal Quality Assistance Cell (IQAC) to institutionalize quality assurance system at the tertiary level. IQAC is expected to evolve mechanism for ensuring integration of modern methods of teaching and learning, maintenance and allocation of support structure and services, quality of academic and research programmes and research sharing and networking with other institutions (NAAC, 2005).

Quality of teacher education institutions is assessed based on a set of six criteria set by the NAAC. These are: curriculum design and planning; curriculum transaction and evaluation; research, development and extension; infrastructure and learning resources; student support and progression; and organization and management. Each criterion is further divided into sub-criteria so that the quality of teacher education institutions can be quantified and assessed as transparently as possible. This exercise motivates teacher educators to follow innovative methods of teaching/training, learning and evaluation so that quality of teacher education is maintained.

Through UGC, Consortium of Educational Communication (CEC) and a network of Educational Multi-media Research Centres (EMRCs) is engaged in development and broadcast of video programmes on various aspects of higher education. These programmes are aimed at empowering students with quality inputs given by the eminent experts available in the country.

- ii) **Indian Space Research Organization (ISRO):** The prime objective of ISRO has been to build space technology and its applications for national development, including socio-economic and educational development. It has established space technology system, such as INSAT, for telecommunication, remote sensing, broadcasting audio-video programmes etc. the Development and Educational Communication Unit (DECU) of ISRO is involved in providing communication support for space application experiments/demonstrations, design and production

of software for education and development, training of programme production personal and media research in application areas (ISRO, 2005) Satellite Instructional Television Experiment (SITE, 1975-76) conducted by DECU, demonstrated the potential of satellite based communication for education. Followed by rich experiences of SITE, ISRO initiated various experiments/demonstrations in interactive media/technology in view of the interaction between the teacher and learners having essential for optimum learning. Interactive media, popularly known as teleconferencing, uses telecommunication system to enable a group of learners located at different places to interact with one another. Teleconferencing can have various technical configurations such as audio conferencing, video conferencing, computer conferencing etc and their various combinations.

Jhabua Development Communication Project (JDCP), initiated by ISRO is also a landmark in utilization of satellite-based interactive communication for education and development. JDCP has two major elements: broadcasting and interactive training programmes. The main objectives of JDCP are to gain experience in setting up and using broadcast and interactive network to support education, evaluate the effectiveness of interactive network for learning and support development and educational efforts to provide quality education to primary school children and teachers.

Based on various experiments/demonstrations on ICT-enabled education conducted by ISRO, the demand for interactive satellite-based distance education system has increased in recent time. ISRO, together with IGNOU has launched EduSat, a dedicated satellite for education and development, to meet this demand. ISRO has been playing an important role in creating technological network in the country in collaborating with various institutions such as IGNOU, NCERT, NCTE etc for optimum utilization of EduSat for education and development. It is involved in training of teachers, teacher educators and other functionaries in setting up and maintaining teaching and learning ends across the country. EduSat is the first educational satellite for serving the education sector exclusively. It is specially launched for audio-visual medium, employing digital interactive classroom and multimedia multi centric system (ISRO, 2005). Thus it is intended to meet the demand for an interactive satellite-based open distance education system in the country. We can reach the remotest school or learner and impart quality education at par with their counterparts in urban schools. Thus EduSat network will connect all the schools/colleges irrespective of their locations. It is expected that EduSat would revolutionize the delivery system of educational/training inputs. The national and regional repositories of courseware can provide needed information/e-content to all the educational institutions and individual learners in the country.

Conceived in October 2002, ISRO translated into reality when an indigenously built educational satellite (EduSat) launched on September 20, 2004 from Sriharikota (Andhra Pradesh) and put into a geostationary orbit. EduSat will exclusively serve the education and development sectors, with a life of seven years. It is mainly dedicated to meet the demand for an interactive satellite-based learning and act as an interface between face-to-face and open flexible learning. It is an improved version of the satellites launched under the Indian National Satellite(INSAT) series and has several new features/technologies. It has been

specially configured for audio-visual medium, employing digital interactive classroom and multi-centric system. The virtual classroom configuration with Edusat is given in Fig. 15.1.

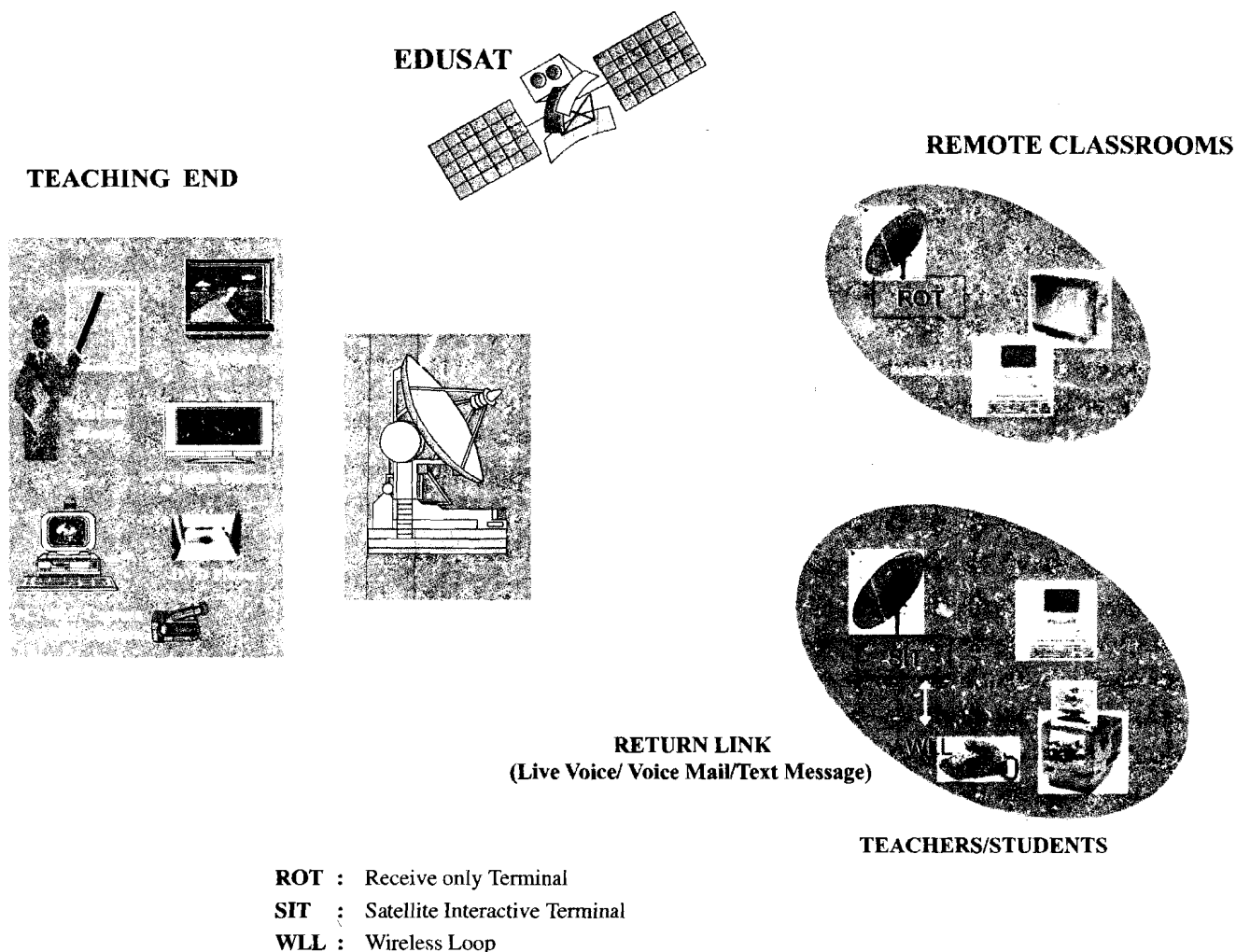


Fig. 15.1: Virtual Classroom Configuration

Source : Bhatia B.S. & Dikshit H.P. (2004) : State Ministers of Education Meet, IGNOU, October 28, 2004

It carries multiple regional beams covering different parts of the country: five Ku-band transponders with spot beams covering northern, north-eastern, eastern, southern and western regions, one Ku-band transponder with its footprint covering the mainland region and six Extended C-band transponders with their footprint covering the entire country (ISRO).

The satellite will facilitate a variety of telecommunication, data transmission and retrieval. The most remarkable feature of EduSat is its capability to connect all schools/colleges/universities and development agencies across the country through the national and regional networks. EduSat can provide the communications link between urban educational institutions imparting quality education and the large number of rural and semi-rural educational institutions that lack necessary infrastructure. The regional networks/beams can and should be used to impart education in the regional languages and would meet the educational and training needs of the state governments (Chaudhary & Garg, 2006)

Check Your Progress 3

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one at the end of the unit.

- 6) In what ways ICTs support instructional practices at different levels of education?

.....

.....

.....

.....

.....

- 7) What are the criteria set by NAAC to assess quality of teacher education institutions?

.....

.....

.....

.....

.....

.....

- 8) What is the main objective of EduSat?

.....

.....

.....

.....

.....

.....

- iii) **Distance Education Council (DEC):** DEC, as an apex body of IGNOU, is responsible for promotion and coordination of open education system, and for the determination of its standards. It provides financial and technical (academic expertise) support to institutions of open learning. It encourages the use of ICT in education and provides opportunities for sharing technological resources and competencies through inter-university partnership, promotes research and innovations in ODL systems and facilitates development and sharing of self-learning materials amongst all open learning institutions.

DEC endeavours to maintain quality of learning materials prepared by ODL institutions. To help teachers working in ODL institutions grow professionally and keep developments/innovations abreast DEC provides financial support and the disciplines. It also supports teachers to attend seminars/conferences within and outside India.

The main functions of DEC are as follows:

- Encourage state governments/conventional universities to establish open universities/distance education institutes and create a network of such institutions.
 - Provide financial support and grants-in-aid and academic guidelines to institutions of open and distance education.
 - Evolve norms, procedures and guidelines in respect of admission, evaluation, and certification.
 - Assess and accredit institutions of open and distance learning to ensure quality.
 - Encourage use of technology in education and provide opportunities for sharing technological resources and competencies through inter-university partnerships/consortia.
 - Facilitate development and sharing of self-instructional (multiple media) materials amongst different open universities/distance education institutions.
 - Facilitate sharing of student support services created by various State Open Universities (SOU) and correspondence course Institutes (CCIs).
 - Promote convergence of conventional, ODL and other systems to facilitate mobility of learners through credit transfer/sharing.
 - Promote research and innovation in ODL systems.
 - Facilitate training for indigenous capacity building in ODL systems.
 - Create databases for SOUs, CCIs, distance educators and functionaries associated with ODL systems.
- iv) **National Council for Teacher Education (NCTE):** NCTE is an offshoot of the National Policy of Education (1986 as revised in 1992) equipped with statutory status and resources for overhauling teacher education system in the country. The main objective of NCTE is to achieve planned and coordinated development of teacher education system throughout the country. It covers all the aspects of teacher education, such as maintenance of quality, research and training of teachers for pre-primary, primary, secondary and senior secondary school education (NCTE, 2005). NCTE frames norms for teacher education at different levels. These norms are periodically reviewed and revised to suit the emerging needs of teacher education in the country.
- v) **International Council for Open and Distance Education (ICDE):** ICDE offers its members access to its extensive worldwide experience and networking capacity in distance and flexible learning at strategic and operational levels (ICDE, 2005). It provides a global network and leadership for the institutions around the world that are involved in open and distance education. An important aim of ICDE is to promote intercultural cooperation and understanding through flexible and on-line learning through out the world. ICDE has access to the latest know-how, updated knowledge and trends in distance and online learning. ICDE is aimed at:
- Contributing to the development of new methodologies and technologies in order to improve lifelong learning;

- Fostering international collaboration in flexible learning and teaching;
- Supporting and developing networks for flexible learning and teaching at national, regional and global levels;
- Providing a forum where individuals, corporations, institutions, governments and associations can engage in professional interaction in the field of flexible learning and teaching;
- Encouraging the development of good practices and standards in flexible learning and teaching.

In the last one-decade or so, more online and virtual learning institutions are becoming members of ICDE. It (ICDE) embraces research as a potent instrument for future practice of open and distance learning (ODL) system. ODL is essentially about the best way to design and develop learning/training packages and to disseminate information in a knowledge-based society. The key to all these is definitely research.

vi) **Asian Association of Open Universities (AAOU):** AAOU was formed by a number of open universities in the Asian region in 1987. It aims at:

- Widening the educational opportunities available to all the people in the region and exchanging management information, teaching-learning materials and research;
- Promoting education by distance teaching system and developing its potentialities;
- Promoting professional and ethical standards amongst distance educators; and
- Facilitating cooperation with other similar regional and international bodies.

AAOU facilitates inter-university staff exchange so that they can learn from each other's experiences. AAOU organizes conferences on emerging topics of open distance learning systems.

vii) **Commonwealth of Learning (COL):** COL, established in 1988, helps member countries optimize their potential to expand access to education to the remotest regions and to meet the requirements of those without option of face-to-face learning (COL, 2002). Recognizing knowledge as key to cultural, social and economic development, COL is committed to assist member countries to take full advantage of open and distance learning systems and technology-enabled learning to provide increased and equitable access to education and training. It provides examples of excellent practices that demonstrate as to how ODL can help to rapidly expand education opportunities. It helps countries to develop policies and system of ODL. COL has identified four major roles. They are:

- Catalyst for collaboration,
- Resource for training,
- Capacity builder, and
- Knowledge provider.

COL focuses on three major programmes:

- i) **ODL policy:** COL advocates for promotion of ODL as a major strategy to ensure access, inclusion and achievement related policies at the national and institutional levels.
- ii) **ODL system development:** COL ensures that ODL is supported by adequate infrastructure and skilled human resource so that ODL system is sustained and is able to maintain quality. Areas such as instructional design, learner support, material development, quality assurance, computer networks etc, are dealt with by COL.
- iii) **ODL applications:** COL works with institutions in developing models of delivering learning and training using ODL system. It also demonstrates the applications of learning technologies to achieve national/institutional objectives.

Check Your Progress 4

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one at the end of the unit

- 9) What are the main functions of the Distance Education Council (DEC)?

.....

.....

.....

.....

.....

- 10) Mention the major roles of the Commonwealth of Learning (COL)?

.....

.....

.....

.....

.....

15.7 LET US SUM UP

In this unit you have studied various learning/instructional support practices used by both the conventional and ODL systems of education. To successfully complete their study the learners need learning support at the micro level. The institutions provide additional support to the learners so that they do not face any problem in their learning. The important support practices adopted by conventional and open distance systems of education are as follows:

- Library
- Seminars
- In service education of teachers
- Cluster school system

- Institutional collaboration
- Community support
- Guest lecturers

In ODL system we use ICTs to reach and impart education to all, including disadvantaged section of society. ICTs bring unique sources to the learner without any loss in the quality of learning inputs. Due to availability of advanced ICTs many institutions have offered on line courses.

There are various agencies at the national and international levels involved in providing instructional support to the students. Important among those are as follows:

- University Grant Commission(UGC)
- Indian Space Research Organization(ISRO)
- Distance Education Council(DEC)
- National Council for Open and Distance Education(ICDE)
- Asian Association of Open Universities(AAOU)
- Commonwealth of Learning (COL)

These and other agencies contribute in improving instructional practices. We have discussed the role of each agency in brief in this unit.

15.8 UNIT-END ACTIVITIES

- 1) Visit a nearby school or a college and find out from the head of the institution or the teachers what kinds of instructional support they provide their students.
- 2) Interview a few students of distance learning both at school and tertiary levels and find out from them how ICT helps in their learning at a distance.

15.9 POINTS FOR DISCUSSIONS

- 1) "Instructional support systems play a great role in enhancing student learning." Explain.
- 2) Institutional collaboration avoids duplication of efforts and facilitates to provide quality inputs to students by the collaborating institutions.

15.10 SUGGESTED READINGS/REFERENCES

Dittmar, F., Mendelsohn, J. & Ward, V. (2002); *The School Cluster System in Namibia, Research and Information Services of Namibia*, Windhoek, Namibia.

NAAC (2005): *Revised Guidelines for Creation of IQAC in Accredited Institutions*, Bangalore: NAAC

ISRO (2005): *Important Activities of Attached Subordinate Offices*, <http://www.isro.org>

NCTE (2005): *NCTE at a Glance*, <http://www.ncte.in.org>

ICDE (2005): <http://www.icde.org>

COL (2002): *Three-Year Plan 2003-2006, Building Capacity in Open and Distance Learning*, Vancouver: Commonwealth of Learning.

Chaudhary, SVS & Garg S.C. (2006): *Educational Satellite(EduSat): Opening New Vistas for Education & Development in India*, Mimeo, New Delhi: IGNOU.

Sharma CB & Chaudhary SVS (2003): *Institutional Collaboration in Distance Education Development & Delivery*, Commonwealth of Learning (COL), http://www.col.org/knowledge/ks_instcollaboration.htm

Moran, L. (1990): Institutional Collaboration: The Case of the Australian Inter-University Women's Studies Major, *Journal of Distance Education*, Vol. 5.2/8, <http://cade.athabascall.ca>

15.11 ANSWERS TO CHECK YOUR PROGRESS

- 1) Library helps both the teacher and the learners in accomplishing the objectives of instruction. It also encourages learners to be independent learners. It acts as an instructional partner, learning resource centre and learning manager. Thus it helps in the instructional process.
- 2) In-service education of teachers is required to provide teachers at all levels periodical training in all areas of teaching such as content upgradation, innovative pedagogy and contextual issues.
- 3) The main purposes of cluster school system are to improve teaching by sharing resources, experiences and expertise among staff; and to facilitate and pool resources from several small schools.
- 4) Institutional collaboration is needed to improve the quality teaching-learning by sharing different resources, knowledge and expertise, infrastructure facilities, student support services etc.
- 5) Due to community involvement in universalization of elementary education, there have been tangible results in terms of increase in student enrolment, retention, gender parity etc.
- 6) ICT has helped us to provide the un-reached access to quality education. It also helps the learners to access quality learning inputs whether they are in schools/ colleges or at their home.
- 7) The criteria set by the NAAC to assess the quality of teacher education institutions are: curriculum design and planning; curriculum a transaction and evaluation; research, development and extension; infrastructure and learning resources; student support and progression; organization and management.
- 8) The main objective of EduSat is to meet the demand for interactive satellite based learning and act as an interface between face-to-face and open flexible learning.
- 9) The main function of the Distance Education Council is to promote and coordinate open education system and to determine its standards.
- 10) The major roles of the Commonwealth of Learning (COL) are to act as: catalyst for collaboration, resource for training, capacity builder and knowledge provider.

UNIT 16 EFFECTIVENESS OF EDUCATIONAL ORGANISATIONS

Structure

- 16.1 Introduction
- 16.2 Objectives
- 16.3 What is Effectiveness?
- 16.4 Theoretical Views on Organisational Effectiveness
- 16.5 Factors Affecting Educational Effectiveness
- 16.6 A Comprehensive Model of Educational Effectiveness
- 16.7 Role of the Head of the Organisation in Organisational Effectiveness
- 16.8 Role of the Teacher in Organisational Effectiveness
- 16.9 Let Us Sum Up
- 16.10 Unit-end Activities
- 16.11 Points for Discussion
- 16.12 Suggested Readings/References
- 16.13 Answers to Check Your Progress

16.1 INTRODUCTION

Educational organisations are mainly known for their quality of performance, be it academic achievement of the students or overall quality of organisational environment, or any other component of organisational functioning, by different beneficiaries, namely, students, parents, state and national governments and employers. This is why the educational organisations realise the importance of increasing the effectiveness of their organisations. Although effectiveness of an educational organisation is generally interpreted in terms of the final outcomes of the organisational operation, it is subjected to several interpretations by different authors and from different perspectives. An economist may look at effectiveness of an organisation from cost-benefit analysis. An instructional designer may look at it from the effectiveness of instructional processes. A sociologist may look at it from the perspective of group dynamics, leadership style etc. Similarly, a philosopher may look at it as to how well the broad goals of life are achieved. Hence, educational effectiveness has several interpretations. In this unit, we will mainly discuss the concept of educational effectiveness and its characteristics.

15.2 OBJECTIVES

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

- define the terms effectiveness and educational effectiveness;
- differentiate between effectiveness and efficiency;
- discuss theoretical views on organisational effectiveness;
- identify factors affecting educational effectiveness;
- enumerate the role of head in organisational effectiveness; and
- explain the role of teacher in organisational effectiveness.

16.3 WHAT IS EFFECTIVENESS?

In making an attempt to understand the concept "effectiveness", one may come across several terms which are associated with effectiveness like efficiency, accomplishment, quality improvement, evaluation, monitoring, reviewing, accountability, performance etc. Similarly, the term is also subject to different interpretations by different professionals and different end users. We have already said that economists, psychologists, sociologists and philosophers have their own ways of interpreting the term. Similarly, the end users or the beneficiaries like headmaster, parent, government and the society may perceive it differently. The headmaster of a school may look at it in terms of the students' performance in the external examinations. The parents may interpret it in the way their children behave at home. The society may perceive it in terms of the good moral behaviour of the children. The government may come out with certain indicators-internal performance indicators, outside performance indicators, etc. to assess the effectiveness of an educational organisation. In spite of all these interpretations, effectiveness can broadly be linked to attainment of educational goals, both short-term and long-term. This is the extent to which the set goals (long-term) and objectives (short-term) of an educational organisation are accomplished. Such effectiveness can be looked at from the quality, quantity, equity or equality of educational experiences imparted in the organisation. To be effective, an organisation should be 'doing the right things' (Drucker, 1977) or, more prosaically, achieving outcomes which are consistent with its expectations (Hoy and Miskel, 1991). These demand:

- 1) An appropriate means of deciding what these 'things' should be and periodically reviewing such choices.
- 2) A means of allocating accountabilities to ensure that its decisions are carried out. The 'right things' are done and the quality of outcomes matches expectations. (Fidler, 1997)

Effectiveness of an educational organisation should not be confused with educational effects which take into account unexpected outcomes of education. Suppose certain special inputs provided in the instructional system may bring in unusual pupil performance in the school. Similarly, educational effectiveness is also to be distinguished from educational efficiency. Educational efficiency is concerned with the relationship between the effects of education and the inputs of education. In other words, this is the extent to which the inputs produce the expected output in an educational setting. On the other hand, "Effectiveness stresses the point that factors at the different levels of the educational system contribute to educational outcomes: the student level, the classroom level, the school level and the contextual level." (Creemers, 1997).

Cheng (1993) has differentiated between effectiveness and efficiency in terms of short-term output versus long-term outcomes.

According to him, technical effectiveness and efficiency refer to "school outputs limited to those in school or just after schooling (e.g. learning behaviour, skills obtained, attitude change, etc.)". Whereas social effectiveness and efficiency relate to "effects on the society level or the life-long effects on individuals (e.g. social mobility, earning, work productivity)." If one combines these two dimensions, four types of school output can be distinguished.

Table 16.1: Distinction between School effectiveness and School Efficiency [cited from Cheng (1993)]

Nature of School input	Nature of school output	
	In school/Just after schooling. Short-term effects Internal (e.g. learning behaviour, skills obtained)	On the society level long-term effects. External (e.g. social mobility, earnings, productivity)
Non-monetary (e.g. teachers, teaching methods, books)	School's societal effectiveness	School's technical effectiveness
Monetary (e.g. cost of books, salary, opportunity costs)	Schools technical efficiency (internal economic effectiveness)	Schools societal efficiency (external economic effectiveness)

Source: Scheerens (2000)

Cheng's interpretation of effectiveness is mainly from the viewpoint of economic criterion in which inputs and outputs have been taken into consideration. In the next section, we will discuss theoretical views on organisational effectiveness.

Check Your Progress 1

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit

- 1) What is the meaning of 'effectiveness' in the context of educational organisation?

.....

.....

.....

.....

.....

.....

- 2) Differentiate between educational effectiveness and educational efficiency.

.....

.....

.....

.....

.....

.....

.....

16.4 THEORETICAL VIEWS ON ORGANISATIONAL EFFECTIVENESS

It is not easy to define the term organisational effectiveness. Also, organisational effectiveness cannot be described in a straightforward manner. There are various theoretical interpretations of the concept of organisational effectiveness. We present here five major theoretical models as presented by Scheerens (2000).

Economic Rationality Model

According to this model, effectiveness of an organisation is defined in terms of its productivity. That means, goals are formulated as output of the primary production process of the organisation. Productivity is chosen as the basis for choosing criteria for effectiveness. For example, student achievement and well being of students are certain criteria which explain the productivity of the organisation. Thus, economic rationality model emphasises quantifying and operationalising goals of education. Although productivity explains the effectiveness of an organisation, there are other factors, which are important for the functioning of the organisation. Let us examine these through other theoretical models.

The Organic Systems Model

According to the organic systems model, organisations can be compared to biological systems which adapt to their environment. The main characteristic of this approach is that organisations are considered to interact openly with their surroundings. Thus, they need not be passive objects of environmental manipulation but can themselves actively exert on the environment (Scheerens, 2000). The organisation also needs to be flexible for its survival by way of securing essential resources. Flexibility and input adaptability are determinants of organisational effectiveness. The best example of this model is that schools and colleges convey their performance i.e. student enrolment, academic achievement in public examination, certification and recognition by the national accreditation and or validation international bodies like NCTE, NAAC etc. to prove their effectiveness.

Human Relations Model

According to this model, the quality of human relations determines the effectiveness of educational organisation. The relations between different human elements namely, the organisational head (head teacher), teachers, students, administrative personnel etc. count towards effectiveness. General well-being of the individuals, consensus and collegial relationship, democratic participation, motivation to work and professional development are the criteria which form parts of human relations and contribute to the effectiveness of the organisation. From this perspective, job satisfaction of workers and their involvement within the organisation are appropriate criteria for determining the effectiveness of the organisation.

The Bureaucratic Model

According to this model, the educational institution has a well-defined structure of positions and duties which is called 'bureaucracy'. So long as the organisational structure continues to operate with a reasonable degree of certainty, the effectiveness of the organisation does not get affected. Hence, from this perspective, certainty and continuity of the existing organisational structure is the effectiveness criterion.

The Political Model of Organisation

This model of organisational theory looks at educational institutions as political battlefields. Departments, individual workers and management staff use official duties and goals in order to achieve their own hidden-or less hidden-agendas. Good contacts with powerful outside bodies are regarded as very important for the standing of their department or of themselves (Scheerens, 2000). According to this model, the effectiveness of educational organisations is judged from the manner internal bodies of the organisation such as the governing council, comply with the demands of external stakeholders.

Table 16.2: Organisational-effectiveness Models

Theoretical background	Effectiveness criterion	Level at which the effectiveness question is asked.	Main areas of attention
(Business) economic rationality	Productivity	The Organisation	Output and its determinants
Organic system theory	Adaptability	The organisation	Acquiring essential inputs
Human relations approach	Involvement	Individual members of the organisation	Motivation
Bureaucratic theory; system members theory, social, psychological, homeostatic theories	Continuity	The organisation + individuals	Formal structure
Political theory on how organisations work	Responsiveness to external stakeholders	Sub-group and individuals	Independence power

Source: Scheerens (2000)

Check Your Progress 2

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit

3) What are different models of organisational effectiveness?

.....

.....

.....

.....

4) Discuss any two models and explain how they influence effectiveness of educational organisations.

.....

.....

.....

16.5 FACTORS AFFECTING EDUCATIONAL EFFECTIVENESS

Although there are different theoretical views on organisational effectiveness, no theory can exclusively explain the effectiveness of organisation. But, it can be viewed that these theories complement each other to define the concept of effectiveness. Having understood the concept of effectiveness, let us discuss various factors which affect educational effectiveness. Researchers have been engaged, every now and then, to find out the factors responsible for educational effectiveness. Most of these researchers are concerned with studying the school organisation. However, their findings about the factors of educational effectiveness have wider implications. Sammons, et. al (1995), after reviewing a number of research studies on school effectiveness, have arrived at some of the key factors (or correlates) of effectiveness. But these factors are not independent of each other. Instead, they provide a better understanding of possible mechanisms of effectiveness. These are the following:

- 1) Professional leadership
- 2) Shared vision and goals
- 3) A learning environment
- 4) Concentration on teaching and learning
- 5) Purposeful teaching
- 6) High expectations
- 7) Positive reinforcement
- 8) Monitoring progress
- 9) Pupil rights and responsibilities
- 10) Home-school relationship
- 11) A learning organisation

Professional leadership

The leadership role of the institutional head is very much crucial for the effectiveness of the institution. Both primary and secondary leaderships constitute a key factor for institutional effectiveness. Apart from the quality of individual leaders, their style of management, their relationship to the vision and values and goals of the institution and their approach to bring in changes count a lot for effectiveness. A leader must be firm and purposeful in his/her decision-making processes. He/she must share responsibilities with other members of the management team as well as the teachers of the institution. Thus, a participative approach instead of autocratic and over-democratic ways of workers is very important for effectiveness. The leader, apart from his/her role as an administrator should also be a leading professional. She/he must know about what goes on in a classroom, how students progress in the class, how teachers perform the duties they are assigned etc. Thus effective professional leadership is essential for organisational effectiveness.

Shared Vision and Goals

The members of an educational institution formulate the vision and goals of the institution in a consensual manner and follow them up through consistent and collaborative ways

of working and the decision-making. This is important to raise and achieve institutional aspiration and purpose. Unity of purpose combined with a positive attitude towards various aspects of institutional functioning is important for effectiveness. Moreover, there should be consistency among the staff members while implementing rules and regulations, practising different activities such as recruitment, examination, assessment, use of curriculum guidelines, maintenance of discipline etc. The staff members must co-operate and collaborate among themselves to achieve the vision and goals of the institution. There should be reciprocal relationship of support and respect and strong sense of community feeling among staff and students.

A Learning Environment

Learning environment refers to the climate in which students work for their learning goal. This is crucial for determining the effectiveness of an institution. The learning environment must be orderly and vibrant; not chaotic and lethargic. It should provide students a strong zeal to learn. Students' goal of practice of learning and behaviour must be reinforced by the teachings. A learning environment is also dependent on the instructional environment created by the teachers. The physical environment and the logistics also contribute to the kind of learning environment an institution has. Attractive and stimulating working conditions develop morale of students whereas poor infrastructure discourages students' spirit and encourages negative learning environment.

Concentration on Teaching and Learning

The primary focus of any educational institution is on the teaching-learning activities organised by the teachers. The ultimate achievement of students is dependent on the effectiveness of the teaching-learning process. Hence, there is a need to focus on the quality as well as the quantity of teaching and learning which takes place. There is evidence to prove that students' learning time has positive correlations with their learning outcomes. Researchers have provided several measures of learning time. These include:

- Proportion of the day devoted to academic subjects;
- Proportion of time in lessons devoted to learning or to interaction with students;
- Proportion of teachers' time spent discussing the content of work with students as opposed to routine matters;
- Teacher's concern with cognitive objectives rather than personal relationships;
- Punctuality of lessons; and
- Freedom from disruption coming from outside the classroom.

Apart from giving emphasis to student learning time, the focus of educational institution on academic achievement of their students decides effectiveness. For example, some schools mainly focus on enhancing academic achievement of their students. Hence, attention should be given to utilise student-learning time and to promote student achievement in order to be effective.

Purposeful Teaching

The quality of teaching is vital for the institutional effectiveness. The teacher's background expertise in the subject content, training background, personality behaviour with students etc. does contribute to effective learning and ultimately effective schooling. Even if a teacher is well qualified but is unable to adopt good teaching styles and strategies, it may lead to poor teaching performance. Classroom teaching is an art and a

teacher has to master it in order to be an effective teacher. A teacher must be well organised and absolutely clear about his objectives. He must plan and present his lessons systematically and evaluate student's performance objectively. A teacher should also be sensitive to different learning styles of his/she students and where feasible, identify and use appropriate strategies to cope with various styles.

High Expectations

Now-a-days there are high expectations from educational institutions in terms of student behaviours, academic performance, and annual student results. These expectations are set by schools or colleges themselves or parents expect high performance from them. Sometimes, the education department of a government also sets high expectations of educational institutions. Just setting high expectations does not decide the effectiveness of an institution; the institutions must provide intellectually challenging lessons to correspond to these expectations which will lead to better student performance. Hence, high expectation, challenging learning environment, good academic performance and effectiveness are closely related. On the other hand, low expectations, poor learning environment and poor academic performance lead to ineffectiveness of educational institution.

Positive Reinforcement

Rewards, praise, feedback on students' behaviour and performance contribute to effectiveness. On the other hand, punishment, humiliation and no feedback do not foster effectiveness. Clear and fair discipline on the school campus is also a sign of effective school whereas frequent use of punishment may create negative environment and lead to unruly behaviour of students. When students are provided immediate feedback in the form of praise or delayed feedback in the form of rewards, incentives and prizes, they are encouraged to perform better. Therefore, positive reinforcement has a great role in enhancing effectiveness.

Monitoring Progress

The effectiveness of an educational institution is largely dependent on how well various activities occurring in the institution are monitored. Monitoring includes monitoring the performance and progress of students, classroom teaching, examination and assessment, overall development of the institution etc. Monitoring can be done at different stages by different personnel. In a school, a head teacher himself monitors many activities and delegates many other activities to subordinate teachers. Monitoring can be done by both formal and informal means. With the advancement of computer technology, monitoring can be done by a well-developed Management Information System (MIS).

Pupil Rights and Responsibilities

When pupils in a school are given certain rights and responsibilities, these raise their self-esteem and they take active part in school's functioning. Researchers have found that positions of responsibility have positive effects on both pupil behaviour and examination success. Similarly, pupils respond when they are given greater control over what happens to them at school. Similarly, relationship of teachers with their students, their attitudes towards them, their way of communication with them, the respect given to them and the personal support rendered and feeling expressed about them go, to a great extent, in recognising the student and their needs. All this contributes significantly to the good teacher-students relationship which in turn adds to the effectiveness.

Home-School Relationship

Supportive relations and co-operation between home, i.e. parents and schools also contribute to the effectiveness of school. Frequent Parent-Teacher Associations' (PTA) meetings draw attention of both school authorities and parents to discuss various issues and measures pertaining to optimum learning of the children. Particularly, at the primary school level, such parental involvement with their children's learning has great impact on the overall development of the children. Apart from getting involved in children's learning process, parents can also contribute to other developmental activities of the school such as organisation of annual days, school festivals, school exhibitions, sports days, construction and improvement of school campus etc. Hence, home-school partnership is recognised as an important component of school effectiveness programme.

A Learning Organisation

Educational institutions are basically learning organisations. All the members of an educational institution, namely, students, teachers, staff and the head of the institution along with the members of the management committee need to be engaged in updating their knowledge, training and skills pertaining to better institutional practice.

Hence, all kinds of staff-development programmes in terms of organising in-service training courses in the institution or deputing the staff members to attend continuous or recurrent programmes being held in professional develop institutes contribute significantly to the institutional effectiveness.

Check Your Progress 3

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit.

5) List, according to you, any five important factors which influence effectiveness of educational organisation.

.....

.....

.....

.....

16.6 A COMPREHENSIVE MODEL OF EDUCATIONAL EFFECTIVENESS

We have, by now, discussed the concept of educational effectiveness, theories and factors affecting educational effectiveness. In the subsequent section, we will discuss a comprehensive model of educational effectiveness. Although there are main indicators or factors of educational effectiveness, some experts have made attempts to develop models of educational effectiveness by collating several factors of effectiveness. One such efforts was made by Bert Creemers (1997), who developed a comprehensive model of educational effectiveness. We are presenting his model with explanations. Creemers (1997) has taken four broad levels in his model. These are student level, classroom level, school level and the content level. He has detailed out these levels by providing several components/characteristics of these levels. For a detailed understanding of the model, you may refer to the fig. 16.1. We discuss each of these levels in greater details.

**Decision-Making,
Implementation and
Evaluation of Curriculum
Transaction**

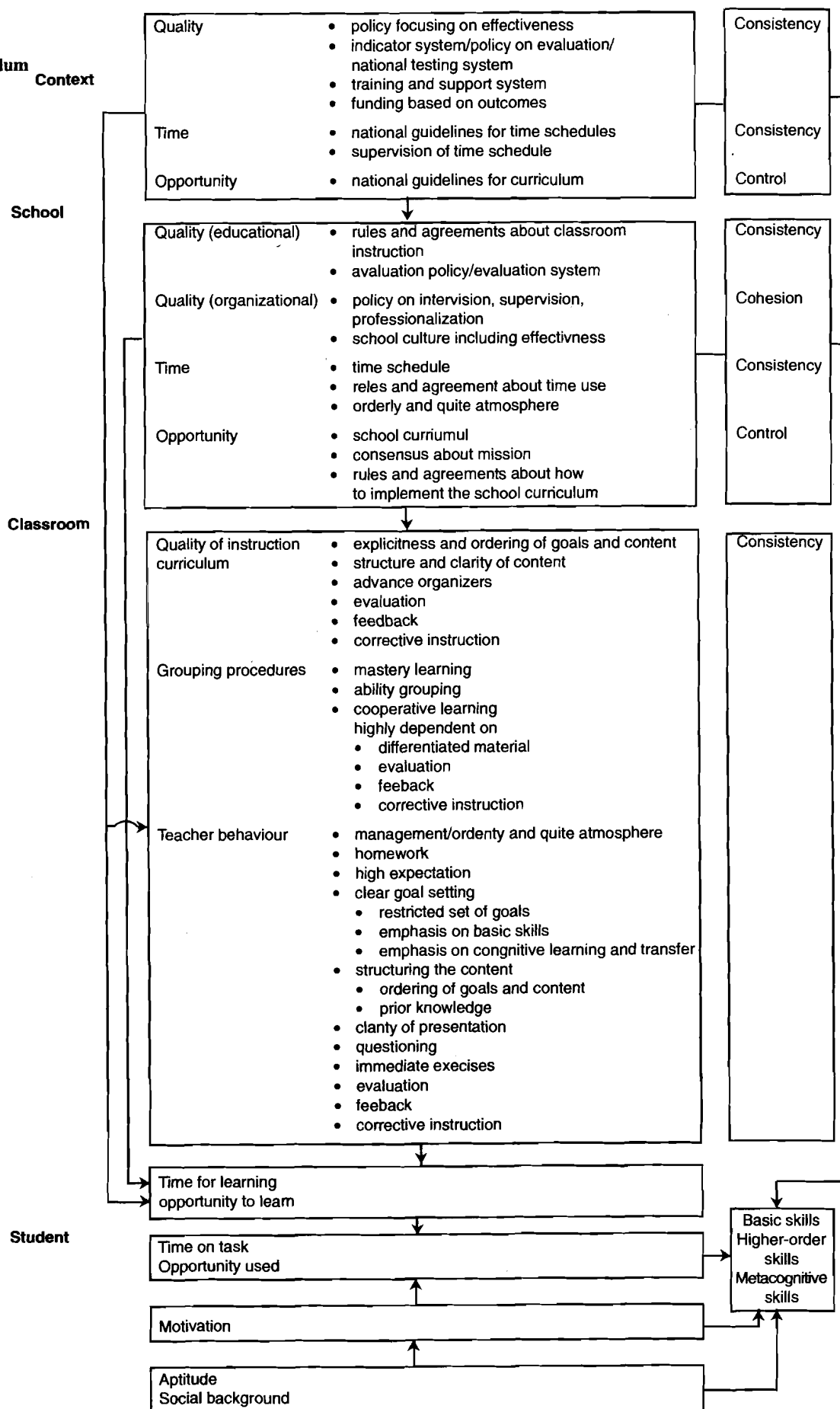


Fig. 16.1: A Comprehensive Model of Educational Effectiveness

Source: Creemers (1997), Page 115

Students constitute an important component of an educational institution. There are many factors associated with students which determine the effectiveness. Their backgrounds, personality characteristics, motivational level, attitudes and aptitudes, learning styles etc. do contribute to educational effectiveness. Time on task which relates to their time spent at home and school on learning supported by opportunities to learn is very much important for effectiveness. Opportunities to learn are concerned with the supply of learning materials, learning experiences and activities by which learners can acquire knowledge and skills. Hence, students' learning time and the supportive learning opportunities are crucial for student performance in school.

Classroom Level

The quality of instruction constitutes an important component of educational effectiveness. Creemers (1997) has identified three components of quality classroom instruction. These are curriculum, grouping procedures and teacher behaviour.

Curriculum

- explicitness and ordering of goals and content;
- structure and clarity of content
- advance organisers
- material for evaluation of student outcomes, feedback and corrective instruction

Grouping Procedures

- mastery learning
- ability grouping
- co-operative learning; all of which are highly dependent on
- differentiated material
- material for evaluation, feedback and corrective instruction

Teacher Behaviour

- management and orderly and quiet atmosphere
- homework
- high expectations
- clear goal setting
- restricted set of goals
- emphasis on basic skills
- emphasis on cognitive learning and transfer
- structuring of content
- ordering of goals and content
- advance organisers
- making use of prior knowledge of students
- clarity of presentations
- questioning
- immediate exercise after presentation of new content
- evaluation, feedback and corrective instruction

Although all of these comprise the components of classroom instruction, teachers play a pivotal role in making use of curricular materials, carrying out grouping procedures and structuring of content.

School Level

According to Creemers (1997), school-level factors are defined as conditions for classroom-level factors. All those conditions at the school level, which help enhance quality of instruction, time or opportunity to learn constitute school level factors. These conditions at the school level are related to educational aspects, organisational aspects, and time at the school level and opportunity to learn. The details of these are presented as follows:

Educational Aspects

- rules and agreements about all aspects of classroom instruction, especially curricular materials, grouping procedures and teacher behaviour and the consistency between them;
- an evaluation policy and a system at school level to check pupil achievement, to present learning problems or to correct problems at an early stage, including regular testing, remedial teaching, student counselling and homework assistance.

Organisational Aspects

- a school policy on intervision and supervision of teachers, departmental heads and head teachers (educational leadership), and a school policy to correct and further to professionalise teachers who do not live up to the school standards;
- a school culture inducing and supporting effectiveness.

Time at the School Level

- the development and provision of a time schedule for subjects and topics;
- rules and agreements about time use, including the school policy on homework, pupil absenteeism and cancellation of lessons;
- the maintenance of an orderly and quiet atmosphere in the school.

Opportunity to Learn at the School Level

- development and availability of a curriculum, school working plan or activity plan;
- consensus about the mission of the school; rules and agreements about how to proceed, had to follow the curriculum, especially with respect to transition from one class to another or from one grade to another (Creemers et. al. 1992)

Content Level

Creemers (1997) talks of three major dimensions at the content level. These are quality, time and opportunity to learn.

Quality

- a (national) policy that focuses on effectiveness of education;
- the availability of an indicator system and/or a national policy on evaluation or a national testing system;
- training and support systems promoting effective schools and instruction;
- funding of schools based on outcomes.

- National guidelines regarding time schedules of schools and the supervision of the maintenance of schedules.

Opportunity to Learn

National guidelines and rules with respect to the development of the curriculum, the school working plan and the activity plan at the school level.

According to Creemers (1997), "it is clear that at the different levels, certainly at the content level, resources are also important, but resources should be defined as in this model; availability of materials, teachers and other components supporting education in schools and classrooms. At the content level, consistency, constancy and control are again important formal characteristics, emphasising the importance of the same material characteristics over time and of mechanisms to ensure effectiveness".

Check Your Progress 4

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit.

- 7) What are the four important elements of Creemers Model of Educational Effectiveness? Which one of these elements do you think is more important than others?

.....

.....

.....

.....

.....

.....

16.7 ROLE OF THE HEAD OF THE ORGANISATION IN ORGANISATIONAL EFFECTIVENESS

The head of an educational institution plays a significant role in making the institution effective and efficient. She/he is like a spring in the watch, a wheel in the machine and an engine in the steamship. She/he performs multiple roles to run the institution effectively. She/he is basically the leader of the institution and works in collaboration with other members of the organisation for the realisation of organisational goals. In order to be an effective leader, the head of the institution should possess the following qualities:

- Sociability
- Intelligence
- Self-confidence
- Adaptability

- v) Responsibility
- vi) Dependability
- vii) Initiative
- viii) Creativity
- ix) Co-operation
- x) Scholarship
- xi) Risk taking
- xii) Verbal clarity

Apart from the above personal qualities as the leader of the institution, the head is also organiser, governor, director, guide and coordinator of school programmes.

The head of the institution is both an administrative leader and an instructional leader. As administrative leaders, he ensures utilization of existing human and material resources through the adoption of sound management techniques for the progress of the institution. As institutional leaders, he provides assistance to his teacher colleagues in planning, designing and implementing instructional strategies to attain the objectives of instruction.

As leader of the institution, the head of the institution performs the following activities:

- Plans and organises school activities;
- Allocates duties to teachers and non-teaching staff;
- Maintains relationship with parents, community and government;
- Develops networking with other schools.
- Acquaints himself with recent trends in information and communication technology.
- Procures infrastructure and material resources.
- Mobilises available resources for the development of the institution.
- Visualises the future activities of the school.
- Appraises the performance of teaching and non-teaching staff.
- Monitors the performance of the students.
- Conducts staff meetings of the institution.
- Ensures a positive organisational climate.
- Boosts morale of the teachers and students.
- Promotes good academic culture in the institution.
- Inculcates in the members of the institution a sense of identity and pride in the school.
- Creates a positive attitude among the members towards the institution.
- Ensures high quality performance in curricular and co-curricular activities.

- Formulates sound institutional policies in the areas such as curriculum, teaching and learning activities, classroom management, learning problems, guidance and counselling, campus discipline, management of resources and infrastructure, relationship with outside agencies like the community and the government and professional development of teachers.

All the above activities of the head of the institution are very crucial for the effectiveness of the institution.

Check Your Progress 5

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit

- 7) Explain how administrative and instructional leadership of the head contributes to the effectiveness of the organisation.

.....

.....

.....

.....

.....

16.8 ROLE OF THE TEACHER IN ORGANISATIONAL EFFECTIVENESS

Like the head of the institution, a teacher has also a great responsibility to foster effectiveness of the institution. Let us examine the role of the teacher in institutional effectiveness. The teacher is the soul of the school. The aims of education, which the school sets before it, are achieved by the dedication and committed leadership of the teacher. The Education Commission (1964-66) has rightly said: "Of all the different factors which influence the quality of education and its contribution to national development, the quality, competence and character of teachers are undoubtedly the most significant. Nothing is more important than securing a sufficient supply of high recruits to the teaching profession, providing them with the best possible preparation and creating satisfactory conditions of work in which they can fully be effective." Hence, an educational institution, be it a school or a college, depends on its teachers for its excellence and effectiveness.

A teacher is a friend and guide to his/her students and steers his/her students towards the realisation of educational goals. She/he is the instructional leader in the classroom. As a leader, she/he has to motivate students for better learning. She/he has to guide students in a variety of matters – proper selection of subjects, to the wholesome choice of vocation. She/he has to respect their personality, identify and appreciate their strengths and weaknesses and adjust his own attitudes and behaviour accordingly.

As a teacher, she/he has to help students develop right attitudes towards work. She/he has to set an example by having the right attitude to work. She/he has to inculcate in students the habit of punctuality and regularity. The teacher has to help students organise

their work on a systematic basis. She/he should not impose on students but stand by and intervene as and when necessary. A teacher should bring desirable and constructive changes in students through instruction, example and influence.

A teacher performs various roles, which lead to institutional effectiveness.

Teacher as a Manager

As a manager, the teacher performs a variety of role. These are:

Management of curriculum planning and instruction

- Plans and prepares curriculum for the subject she/he is teaching.
- Implements and evaluates curriculum.
- Develops and implements instructional strategy.
- Identifies instructional objectives for each lesson.
- Plan each lesson well, incorporating questions explanations and feedback.
- Selects methods and media as per the content analysis and objectives.
- Provide learners individual space to learn and encourage them to reach the learning outcomes.
- Sets tasks in varied and imaginative ways.
- Uses different teaching skills as per the need of classroom instruction.
- Motivates students to learn and sustain their interest in learning.
- Be aware of the latest developments in subject matter and information and communication technology.

Management of Resources

- Manages classroom resources like textbooks, blackboard, furniture, maps, charts and other equipments.
- Looks after language laboratory, science laboratories, educational technologies like overhead projector, television, cassette recorder, radio, cameras, computer etc.
- Identifies available resources in the community, maintains them and develops accountability towards control and monitoring of resources.

Management of Co-curricular Activities

The teacher is the key in the management of co-curricular activities. He takes decisions with regard to:

- Suitability of different co-curricular activities like debates, seminars, quizzes, dance, music, sports, health campaign, visits etc.
- Identification of talent among students.
- Organisation of different co-curricular activities in advance.
- Organisation of morning assemblies, educational tours, exhibition, field trips etc.

Management of Examination

A teacher:

- Decides dates, place, time and invigilators for an examination.
- Decides the examination pattern by counselling other teachers.
- Prepares question papers on a scientific basis.
- Assesses and evaluates student performance.
- Decides remedial strategies for backward students.

Management of Time

A teacher:

- Prepares annual timetable for the school.
- Prepares class timetable for his class in consultation with other teachers.

Management of Conflict

A teacher:

- Acts as an impartial judge when there arise conflicts among students with multicultural and multi-ethnic background.
- Focuses on issues and facts rather than personalising the conflict.
- Provides and creates an open environment for discussion between the concerned individuals.

Management of Innovation and Change

A teacher:

- Creates conditions and environment so that any innovation can be implemented with maximum effectiveness. For example, if the school intends to introduce computer-mediated instruction, the teacher has to prepare a detailed plan of action in terms of teacher preparation, infrastructure facilities, time availability etc. for implementation of the innovation.

Teacher as a Norm Builder

As a norm builder, a teacher sets examples before the students by setting up certain norms and put them into practice by planning them.

Teacher as a Facilitator

A teacher is a facilitator of student learning. When performing his instructional job, he does not resort to 'spoon feeding'. Rather, She/he encourages students to learn on their own. She/he creates conducive learning environment so that students interact among themselves as well as with him in order to optimise learning. She/he helps them in identifying the right kind of learning resources and materials from the library, Internet and other available sources. She/he always co-operates with them and remains considerate to their learning problems.

Teacher as a Counsellor

As a counsellor, the role of the teacher is to provide all kinds of help, guidance and support to students who face different kinds of personal problems. Apart from problems

related to learning, school, studies etc., a teacher attends to student problems pertaining to their relationship with fellow students, socio-emotional condition, health conditions, family matters, future career, etc. In order to be an effective counsellor, a teacher needs to be a keen observant, sensitive, empathetic and objective in his approach.

A teacher, therefore, performs multifarious roles, which contribute to organisational effectiveness. She/he is basically the key to the overall growth and development of an educational organisation.

Check Your Progress 6

Notes: a) Space is given for your answer.

b) Compare it with the ones at the end of the unit

- 8) List the important managerial roles of a teacher, which determine organisational effectiveness.

.....

.....

.....

.....

.....

.....

.....

.....

16.9 LET US SUM UP

In this unit, we focused on effectiveness of educational organisation. Although, effectiveness is perceived differently by different beneficiaries of educational services, it can broadly be linked to attainment of educational goals – both short-term and long-term. Such effectiveness can be looked at from three major parameters – quality, quantity and equity. While effectiveness is related to attainment of goals, efficiency is concerned with the relationship between inputs and outputs of education. There are five theoretical models which explain organisational effectiveness from different perspectives. These are economic rationality model, organic systems model, human relations model, bureaucratic model and political model. Researchers have tried to find out various factors that influence school effectiveness.

Based on their research findings, eleven factors or correlates have been arrived at. But some researchers have tried to develop a model of educational effectiveness. One such model developed by Creemers comprises four important elements. These are student, classroom, school and content. The head of the institution, be it the headmaster of a school or the principal of a college, plays a significant role in organisational effectiveness. Similarly, the teacher is also the key to overall effectiveness of the educational organisation.

16.10 UNIT-END ACTIVITIES

- 1) Visit any school in your locality whose students have been performing very well in Board examinations consistently. Study different factors in the school, which are contributing to the good performance of students.
- 2) Identify any two schools in your locality. Compare them in terms of effectiveness parameters.

16.11 POINTS FOR DISCUSSION

- 1) "Effectiveness of an educational organisation depends upon the ownership feeling of staff members." Discuss.
- 2) "Effectiveness and efficiency are two sides of the same coin". Discuss.

16.12 SUGGESTED READINGS/REFERENCES

Cheng (1993): Distinction between School Effectiveness and School Efficiency, in Japp Scheerem (2000), *Improving School Effectiveness*, Paris: UNESCO

Creemers, Bert (1997): "Towards a Theory of Educational Effectiveness", in Alma Haris, et al. (ed.) (1997): *Organisational Effectiveness and Improvement in Education*, Buckingham: Open University Press.

Drucker, P.F. (1977): *Management*, New York: Harper's College Press.

Fidler, Brian (1997): Organisational Structure and Organisational Effectiveness in Alma Haris, et al. (ed.) (1997): *Organisational Effectiveness and Improvement in Education*, Buckingham: Open University Press.

Government of India (1964-66): *The Education Commission (1964-66)*, New Delhi: Ministry of Education.

Hoy, W.K. and Miskel, C.U. (1991): *Educational Administration Theory, Research and Practice*, (4th edn.), New York, McGraw Hill.

Sammons, Pam., Hillman, Josh, and Mortimore, Peter (1995): "Key Characteristics of Effective Schools: A Review of School Effectiveness Research" in Kuldip Kumar (ed.) *School Effectiveness and Learning Achievement at Primary Stage*, New Delhi: National Council of Educational Research and Training.

Scheerens, Japp (2000): *Improving School Effectiveness*, Paris: UNESCO.

School of Education (2000): ES-335: *Teacher and School*, New Delhi: IGNOU

16.13 ANSWERS TO CHECK YOUR PROGRESS

- 1) Effectiveness, in the context of educational organisation, refers to attainment of educational goals – both short-term and long-term. Short-term goals are generally objectives identified by the organisation to be achieved immediately and long-term goals are in set goals to be achieved on a long term basis.

- 2) Educational effectiveness is related to attainment of educational goals – short-term and long-term, whereas educational efficiency is concerned with the relationship between inputs and outputs of education.
- 3)
 - i) Economic rationality model
 - ii) Organic systems model
 - iii) Human relations model
 - iv) Bureaucratic model
 - v) Political model and organisation
- 4) Human relation models – According to this model, the quality of human relations determines the effectiveness of educational organisation. Relations among the headmaster, teachers, administrative personnel and students determine effectiveness.
- 5)
 - i) Professional leadership
 - ii) Shared vision and goals
 - iii) Purposeful teaching
 - iv) High expectations
 - v) Positive reinforcement
- 6) The four important elements of Creemers model of Educational Effectiveness are student, classroom, school and content. In our view, all the components are equally important and contribute to the overall effectiveness of educational organisation.
- 7) The head of the institution is both an administrative leader and an academic leader. As administrative leader, she/he maximally utilises both human and material resources for the development of the institution. Similarly, as academic leader, she/he helps his colleagues to develop and implement effective instructional strategies. Thus, by performing the dual role he contributes to the effectiveness of the institution.
- 8)
 - i) Management of curriculum planning and instructions.
 - ii) Management of resources.
 - iii) Management of Co-curriculum activities.
 - iv) Management of examination.
 - v) Management of time.
 - vi) Management of conflict.
 - vii) Management of innovation and change.

UNIT 17 CONTINUOUS AND COMPREHENSIVE EVALUATION PROGRAMME

Structure

- 17.1 Introduction
- 17.2 Objectives
- 17.3 Historical Background
- 17.4 Concept of Educational Evaluation
- 17.5 What is Continuous and Comprehensive Evaluation?
 - 17.5.1 Characteristics of Continuous and Comprehensive Evaluation
 - 17.5.2 Formative and Summative Evaluation
 - 17.5.3 Evaluation of Scholastic and Non-scholastic Learning Outcomes
- 17.6 Continuous and Comprehensive Evaluation and Examination Reforms
 - 17.6.1 Continuous Internal Assessment
 - 17.6.2 Question Banks
 - 17.6.3 Grading
- 17.7 Let Us Sum Up
- 17.8 Unit-end Activities
- 17.9 Points for Discussions
- 17.10 Suggested Readings/References
- 17.11 Answers to Check Your Progress

17.1 INTRODUCTION

All of us are aware of the term 'evaluation'. Although the term is used in many areas of human operation, one finds its use more frequently in educational settings. The core of any form of educational activities organized in a formal set up like, school, college or university is to cause student learning. To ensure that student learning occurs, a teacher plans the instruction, organizes or executes the instructional/learning experiences and at the end evaluates to see whether the instruction has resulted in student learning. Evaluation is primarily associated with ensuring the occurrence of student learning. But, contrary to the general belief that evaluation is a session-end activity, it is a continuous activity that is in-built into the instructional system.

Hence, the focus of the unit will be to discuss the historical background of the concept of evaluation, different types of evaluation and continuous comprehensive evaluation and examination reforms as emphasized by the educational planners and policy makers in India from time to time.

17.2 OBJECTIVES

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

- describe the historical background of the concept 'Evaluation';
- define the meaning of 'Evaluation';
- differentiate between measurement and evaluation;

- identify the characteristics of continuous comprehensive evaluation;
- distinguish between formative and summative evaluation;
- differentiate between evaluation of scholastic and non-scholastic learning outcomes;
- discuss merits and demerits of internal assessment;
- discuss the importance and use of question banks; and
- explain the system of grading and its types.

17.3 HISTORICAL BACKGROUND

“Evaluation” as a concept existed long back when man made an attempt to impart his fellow human beings the knowledge he was possessed with. Although he was not aware of the concept, he was making sure that whatever he had taught resulted in the desired learning. With the institutionalization of the act of teaching and learning, evaluation became a formal and systematic activity. Earlier, evaluation was mainly done in the form of oral testing, recitation of texts or oral answers to questions asked. But, with the development of paper and printing technology, evaluation of student learning began to be carried out as written tests. Written tests are believed to have taken place 2200 B.C., when the Chinese had a national system of examinations to select their public servants. During medieval period, oral examinations were conducted to assess students in the University of Bologna (1219 AD) and the University of Paris by the end of 13th century.

For the first time, the written examination was perhaps conducted at Cambridge, England in 1702. But, testing and evaluation became a specialized area of study and research in the beginning of 19th century with the introduction of standardized tests, e.g. the Alfred Binet-Simon scale, in 1905 and Stanford – Binet scale in U.S.A. in 1916. J.M. Rice (1894) also contributed significantly to the achievement in testing. During twentieth century, many tests of achievement and intelligence were constructed and a whole science of psychometrics got developed involving systematic procedures of test construction.

Indian Concept

Evaluation of learner’s performance has been in existence since the days of ‘Gurukul Parampara’. In ancient time, teaching-learning activities were taking place in Gurukul, where ‘Guru’ (the teacher) was teaching ‘Shishya’ (the student or the learner) and at the end of his teaching the shishya was assessed with regard to his achievement performance. Though, all the activities were conducted orally, they involved the processes of teaching – learning and evaluation. The Gurukula system of education continued for quite a long time and was the main instrument of transferring knowledge from one generation to another. During the medieval period, the examinations were mainly held in school. The teacher himself used to examine the students and promote them to the next class (Chaube, 1999). But during the British Period, education system was designed to meet the manpower requirement of the ruling classes. It was during this period that external examinations were introduced at the secondary stage for the purpose of allocating seats in higher education and placement in government jobs (Aggarwal and Prakash, 2004).

During the post-independence period, the University Education Commission (1948-49), for the first time, took cognizance of improvement of examinations seriously. It

expressed, "if we are to make a single recommendation for the whole university education, it should be that of improvement of examinations". The concept of continuous and comprehensive evaluation germinated when the Commission emphasized the need of internal assessment, objective testing and construction of batteries of psychological and achievement tests. The Secondary Education Commission (1952 - 53) stressed the need for reducing number of external examinations the subjectivity of essay type questions, emphasis on internal assessment, use of symbolic rather than numerical marking, etc. The Education Commission (1964-66) considered evaluation as a continuous process integral to the total system of education. Use of grades in place of marks, improving quality of evaluation instructions, question banks, internal assessment, continuous and comprehensive evaluation were also stressed by the UGC's Examination Reforms Programme- An Action Plan (1972), the National Policy on Education (1986), and the NCERT National Curriculum Framework (2000).

17.4 CONCEPT OF EDUCATIONAL EVALUATION

When we talk of educational evaluation, we are mainly concerned with the achievement of instructional objectives. Whenever a teacher thinks of transacting a body of knowledge, he/she first formulates instructional objectives for her/his teaching, identifies and organizes the content based on her objectives and selects methods and media for transaction of learning experiences. When transaction of learning experiences gets over, she/he intends to know the extent to which her instructional objectives have been achieved. The role of evaluation comes at this stage. Let us look at the Fig. 17.1 for a clear understanding of the role of evaluation in the teaching-learning process.

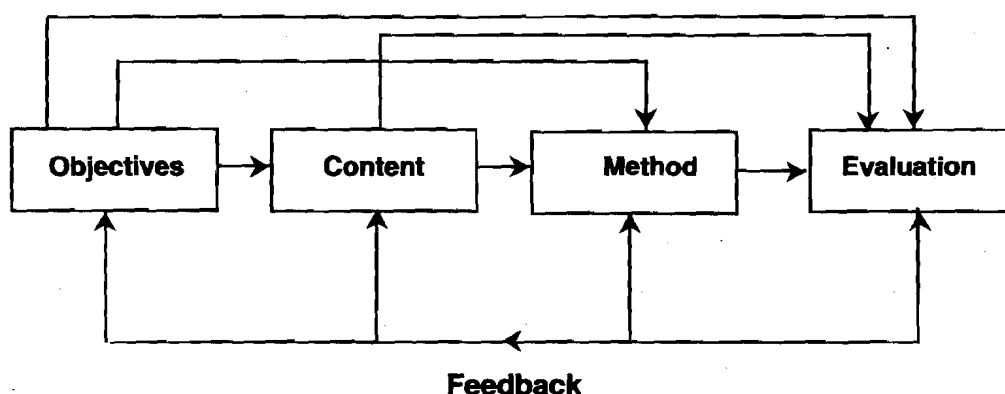


Fig. 17.1: The basic model of teaching-learning process

Source: (SOE, 2003), IGNOU, New Delhi

From the Fig. 17.1, the following are clear:

- Objectives provide basis for content selection, teaching-learning strategies and evaluation of students' performance.
- Content forms the basis for methodology of teaching
- Objectives, content and methodology of teaching form the basis of evaluation.
- Evaluation provides feedback on efficacy of objectives, content and methodology of teaching.
- Evaluation is an integral part of teaching-learning process and not an end of the course activity.

Hence, evaluation constitutes an important component of teaching-learning process. But, what is evaluation then? Evaluation is a process of collecting information on the basis of which judgments are formed, which in turn are used for taking decisions. Thus, the three phases of evaluation are as follows:

- i) Information gathering (about achievements, competencies developed, instructional objectives, etc).
- ii) Forming judgements (about attainment of level, in terms of intended learning outcomes etc).
- iii) Making decisions (about remedial teaching, grading, promotion, certification etc).

Let us discuss the above three phases further in terms of measurement, evaluation and decision-making. Information gathering is basically done through the process of measurement. Forming judgments is related to evaluation. Let us differentiate between these two in detail.

In everyday life, we measure things, events and certain behaviour. For example, when we say that the length of a particular room is 10 feet, it means that we have measured the length of the room. While doing measurement, we assign numerals to the phenomenon or object being measured. As we measure physical objects, we also measure human behaviour or performance in a particular subject or activity. In schools, we give marks or grades to the student-performance in a test. For example, Santosh secures 90 marks in English. Ajit has got 'A' grade in Mathematics. These are cases of measurement. Measurement, therefore, refers to the process of assigning numerical or alphabetical symbols to events, objects or psychological attributes. Marks are expressed in numerical symbols, whereas grades are assigned in alphabetical symbols to events, objects, or psychological attributes. Worthen and Sanders (1987) described, measurement as "quantitative description of behaviour, things or events".

But, measurement alone cannot constitute evaluation. When measurement is coupled with value judgement, it gives rise to evaluation. Thus, evaluation is the determination of a thing's value. In education, "it is the formal determination of the quality, effectiveness of value of a product, project, process, objective or curriculum". (Worthen and Sanders, 1987). Measurement deals with how much of a thing while evaluation goes a step further to tell us, of what value is that measurement. The relationship between the two is depicted by Gronlund (1971) as under:

Evaluation = Measurement + Value Judgement

Let us differentiate between measurement and evaluation with the help of the following example:

Measurement	Evaluation
1) Amit secures 95 marks out of 100 in science	outstanding
2) John secures 50 marks out of 100 in science	Average
3) Isaq secures 30 marks out of 100 in science	below average.

Thus, measurement alone is not equivalent to evaluation. The Sanskrit term "Mapan" for measurement and "Mulyamapan" for evaluation make this distinction clear. There are some terminologies which are closely associated with evaluation

Check Your Progress 1

Notes: a) Write your answers in the space given below:

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

- 1) Differentiate between measurement and evaluation. What are the features of evaluation?

.....

.....

.....

.....

- 2) Discuss the role of evaluation in the teaching-learning process.

.....

.....

.....

.....

17.5 WHAT IS CONTINUOUS AND COMPREHENSIVE EVALUATION?

After having understood the concept of evaluation, let us discuss what continuous and comprehensive evaluation means. Evaluation is a continuous process and it is comprehensive in nature. The expression 'Continuous' refers to regularity in the evaluation process. Hence, evaluation is not only an end of the instructional activity, but a regular activity in the evaluation process and goes on right from the beginning of the instructional process till its end. Thus, it has a time dimension. It is carried out regularly and periodically at the end of a chapter or unit of teaching whereby the teacher gets regular feedback about students' learning.

Comprehensiveness of evaluation refers to evaluation of both scholastic and non-scholastic areas of learner's development. A school or a college aims at developing both cognitive and non-cognitive abilities of the learners. While evaluation of scholastic abilities is concerned with cognitive abilities of the learners, evaluation of non-scholastic abilities pertains to non-cognitive abilities of the learners.

Scholastic/cognitive abilities are concerned with knowledge, understanding, application, analysis, synthesis, evaluation and creativity of a learner, whereas non-scholastic/non-cognitive abilities pertain to affective abilities (habits, attitudes, interests, aptitudes etc.) and psychomotor abilities (lab skills, drawing, painting etc.)

Thus, we can define continuous and comprehensive evaluation as evaluation which is carried out, on a regular basis, on all aspects of student learning – both scholastic and non-scholastic. It gives equal emphasis on both formative and summative evaluation and evaluation of both cognitive and non-cognitive outcomes.

Before we discuss in detail these types of evaluation, let us identify the chief characteristics of continuous and comprehensive evaluation.

17.5.1 Characteristics of Continuous and Comprehensive Evaluation

- 1) It provides the teacher continuous awareness of the development and knowledge of his students.
- 2) A teacher is able to direct his/her teaching based on the achievement of developmental objectives, e.g. growth of thinking process.
- 3) A teacher uses it as a diagnostic device to plan his/her remedial teaching or material on the basis of diagnosis of students' learning difficulties or inadequacies as found from regular testing.
- 4) It focuses on formative evaluation. Hence, a teacher can adopt her instructional strategies based on the feedback received on the attainment of intended learning outcomes.
- 5) It emphasizes both scholastic and non-scholastic aspects of students' performance.
- 6) It is meant to integrate teaching and evaluation and to test those skills and abilities, which cannot be tested through a written examination at the end of a course or programme.
- 7) It is used to improve both academic programme and student learning.
- 8) The evidence obtained from continuous and comprehensive evaluation may be analyzed and interpreted at three different levels as under:
 - a) Self-referenced – how the learner progresses in relation to his own self.
 - b) Criteria-referenced – how the learner progresses in relation to the criterion set by the teacher
 - c) Norm-referenced – how the learner progresses in relation to the norms of the peer group.

From the characteristics of continuous and comprehensive evaluation, it is seen that it embraces the following types of evaluation:

- 1) Formative and summative evaluation
- 2) Evaluation of Scholastic /cognitive and Non- scholastic/non-cognitive outcomes

Check Your Progress 2

Notes: a) Write your answers in the space given below:

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

- 3) What is meant by continuous and comprehensive evaluation?

.....

.....

.....

.....

.....

.....

.....

- 4) Mention any four characteristics of continuous and comprehensive evaluation.

.....

.....

.....

.....

.....

17.5.2 Formative and Summative Evaluation

In schools and colleges, a teacher evaluates student's performance both on a regular basis as well as at the end of a particular instructional session. A teacher while taking a class asks questions to ensure that learning has taken place in students. He/she also gives a unit test at the end of a unit or gives a test at the end of a fortnight or a month. This type of evaluation is called formative evaluation and the tests used for this are called formative tests. The examples of formative tests are unit tests, weekly tests, monthly tests, quizzes etc. But, the teacher also administers a test to his students at the end of a course of instruction or semester. Such type of evaluation is called summative evaluation. The examples of summative tests are annual tests, term-end examinations etc.

Need for Formative Evaluation

- 1) It enables learners to understand their progress in learning. Each learner is interested to know his progress during the course of instruction. She/he also wants to know the quantum, quality, pace and amount of learning he/she has acquired. Formative evaluation provides every learner feedback on the nature of his/her progress in learning. This feedback is to be seen in terms of cognitive, affective and psychomotor characteristics of his/her learning.
- 2) It provides a teacher a diagnostic device to identify learning difficulties/weaknesses in the learners and to take the necessary remedial measures to correct and improve learning.
- 3) It serves as a feedback to the teacher as to the effectiveness of her teaching. Which part of the course is taught well and which instructional objectives have been achieved is revealed through formative evaluation exercise. It provides feedback that makes formative evaluation a useful mode of assessment and helps the teacher to adopt appropriate instructional strategies for improving students' achievement.
- 4) Since the main objective of formative testing is to provide feedback, only conducting formative tests and awarding marks or grades would not serve the purpose. It must be followed by identifying learning weaknesses and adopting remedial measures to improve student learning and teaching-learning programme.

Need for Summative Evaluation

Summative evaluation, as we have mentioned, is done at the end of a course or a semester. The basic purpose of summative evaluation is to grade the overall performance of the student. The teacher also assesses the extent to which instructional objectives have been achieved. He/She also evaluates the effectiveness of the course.

Another important objective of summative evaluation is to certify students in terms of intended learning outcomes (ILOs). By doing this, a teacher promotes a student to the next task or course. He/She classifies students according to their abilities, and decides about their selection for different purposes, such as admission to a new programme of study, selection for a particular job etc. Though the main objective of summative evaluation is to certify student performance, it is also used to judge the appropriateness of syllabus, the course objectives and the effectiveness of instruction and the validation of the instructional process.

Tools Of formative and Summative Evaluation

The following tools can be used both for formative and summative evaluation.

- 1) Written or oral quiz (both announced and unannounced)
- 2) Objective type testing (multiple choice, matching type, true or false etc.)
- 3) Fixed response questions.
- 4) Open-ended questions
- 5) Short-answer questions
- 6) Short type questions (restricted response)
- 7) Practical activities
- 8) Lab Works

Since the main objective of formative testing is to check learning, to locate the weaknesses of learning and suggest remedial steps for improving the learning, questions or items aimed at diagnosing the learning difficulties of the learners may be asked. But in summative testing, all kinds of questions, objective type items, short answer questions and long answer questions should be included for better coverage of syllabus and content validity.

17.5.3 Evaluation of Scholastic and Non-scholastic Learning Outcomes

As we have said earlier, continuous comprehensive evaluation comprises both Scholastic/Cognitive and Non-scholastic/non-cognitive outcomes. Since evaluation needs to be aimed at assessing the performance of students towards their holistic development, it is necessary that a teacher or the school evaluation programme should emphasize both cognitive and non-cognitive learning outcomes as desirable behaviour of that programme.

Objectives Assessing Scholastic and Non-scholastic Outcomes

Assessment of cognitive and non-cognitive outcomes serves many purposes for the teacher and the students. Some of those are the following:

For Teachers

- 1) To monitor learning progress and locate weakness of learners in order to suggest remedial action.
- 2) To monitor the effectiveness of teaching.
- 3) To make decisions for the future regarding choice of subjects, courses and career;
- 4) To predict the future success of the learners
- 5) To choose the suitable candidates for a course or a class
- 6) To assign students with exercise, reading materials etc.

For students:

- 1) To build a realistic self-picture;
- 2) To set educational, vocational, personal and social goals;
 - i) to determine the emphasis to be put on different areas of instruction;
 - ii) to determine areas—subject wise or work wise which would provide satisfaction;
 - iii) to ascertain areas of interest;
 - iv) to identify changes in character/value pattern;
 - v) to assess the curricular experience of pupils;
 - vi) to get accurate and objective information regarding their aptitudes, achievements, interests, values etc.

Areas of Scholastic and Non-scholastic Outcomes

Evaluation of scholastic and non-scholastic outcomes covers many areas. Although it is difficult to exactly pinpoint the list of learning outcomes under both the categories, we can classify them into a scheme based on the work done in the field of Taxonomy of Educational Objectives. The following objectives in the cognitive domain have been identified by Bloom and his associates (1956).

- 1) Knowledge
 - Knowledge of specifics
 - Knowledge of universals and abstractions in a field
- 2) Comprehension
 - Translation
 - Interpretation
 - Extrapolation
- 3) Application
 - Ability to use a theory, a principle or method to solve a problem involving a new or unfamiliar situation.
- 4) Analysis
 - Analysis of elements (identifying assumptions, and logical fallacies)
 - Analysis of relationships
 - Analysis of organizational principles
- 5) Synthesis
 - Production of a unique communication
 - Production of a plan or a set of operations
 - Derivation of a set of abstract relations
- 6) Evaluation
 - Judgement in terms of internal criteria
 - Judgement in terms of external criteria

During 1990's, Lorin Anderson, a former student of Benjamin Bloom, with the help of a team of cognitive psychologists, revised the taxonomy with a view to examining the relevance of the taxonomy of educational objectives developed by Bloom and his associates. Lets us look at Anderson's Revised Taxonomy as opposed to Bloom's Original Taxonomy in the Table 17.1.

Table 17.1: The Original Taxonomy and the Revised Texanomy

Bloom's Original Taxonomy	Anderson's Revised Taxonomy
Knowledge	Remembering
Comprehension	Understanding
Application	Applying
Analysis	Analysing
Synthesis	Evaluating
Evaluation	Creating

A detailed form of the Anderson's revised taxonomy of educational objectives and its broad categories and sub-categories is presented in Table 17.2.

Table 17.2: Detailed Form of Anderson's Revised Taxonomy of Educational Objectives

Category	Sub – Categories
REMEMBERING	Recognizing Listing Describing Identifying Retrieving Naming
UNDERSTANDING	Interpreting Exemplifying Classifying Summarizing Inferring Comparing Explaining
APPLYING	Executing Implementing Carrying out Using
ANALYSING	Differentiating Organizing Attributing Comparing Deconstructing
EVALUATING	Checking Critiquing Judging
CREATING	Generating Planning Designing Producing Constructing

Non-cognitive learning outcomes need to be assessed during any kind of educational programme. Some of the non-cognitive outcomes along with their specific areas are given in Table 17.3.

Table 17.3: Non-scholastic Learning Outcomes

Non-scholastic categories	Specific areas to be measured
1) Habits	Study habits, work habits
2) Interests	Literacy, Research, Scientific, Musical, Artistic, Social Service, Classroom
3) Personal qualities	Perseverance, Originality, Initiative, Open mindedness, Keenness, Imagination, Persuasiveness, Inventiveness, Creativity, Regularity, Punctuality, Cleanliness
4) Social Qualities	Cooperation, Empathy, Sympathy, Maturity, Leadership, Sacrifice
5) Adjustments	Adjustments to individual, classroom, institution, curricular and co-curricular activities
6) Attitude	Attitude towards self, teachers, friends, school's and university's activities national activities neighbourhood
7) Sociometric	Popular, Isolated, Neglected qualities
8) Appreciation	Social life, Beauty of both natural and artificial forms, Sense of aestheticism
9) Values	Personal, Economic, Social, National Moral, Universal, Spiritual

Assessment of Scholastic and Non-scholastic Abilities

When we talk of continuous and comprehensive evaluation, both cognitive and non-cognitive outcomes of the learners need to be assessed. For assessing these abilities, we depend upon various kinds of tools and techniques. Generally, cognitive abilities are assessed with the help of achievement tests or question papers prepared for examination. But non-cognitive abilities are assessed with the help of a number of tools and techniques. Some of these tools and techniques are as follows (SOE 2004):

- i) Tools and techniques based on observation
 - a) Anecdotal record
 - b) Checklist
 - c) Rating scale
 - d) Observation schedule
- ii) Tools and techniques based on product assessment
 - a) Drawing and painting
 - b) Direct questioning
 - c) Written tests
 - d) Autobiography

- iii) Tools and techniques based on sociometric status
 - a) Sociograms
 - b) Social distance technique
 - c) Guess-who technique
- iv) Tools and techniques based on self-reported inventories
 - a) Biographical data bank
 - b) Personality inventory
 - c) Interest inventory/rating scale
 - d) Attitude scale
- v) Tools and Techniques based ideas of projection
 - a) Inkblot technique
 - b) Picture presentation technique
 - c) Presentation of verbal stimuli
 - d) Sentence completion technique
 - e) Play technique
- vi) Tools and Techniques based on school records
 - e) Attendance register
 - f) Learner's history
 - g) Cumulative records

Check Your Progress 3

Notes: a) Write your answers in the space given below:

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

- 5) What are the basic purposes of formative and summative evaluation?

.....

.....

.....

.....

.....

- 6) What does evaluation of scholastic and non-scholastic outcomes emphasize?

.....

.....

.....

.....

.....

- 7) Mention any four non-scholastic outcomes and the appropriate tools to measure these outcomes.

.....

.....

.....

.....

.....

.....

17.6 CONTINUOUS AND COMPREHENSIVE EVALUATION AND EXAMINATION REFORMS

In the context of continuous comprehensive evaluation, initiatives have been taken to introduce examination reforms programme in order to improve the existing system of examinations. The Education Commission (1964-66) says that 'examination reform has become crucial to all progress and has to go hand in hand with the improvements in teaching'. The most noteworthy attempt in this direction was made by the University Grants Commission (UGC) in 1973. The UGC, in a monograph titled "Examination Reforms- A Plan of Action", recommended four aspects of examination reforms. These are internal evaluation, grading system, question banking and semesterisation.. We discuss here only the first three aspects of reforms, as these are relevant for comprehensive continuous evaluation.

17.6.1 Continuous Internal Assessment

Continuous internal assessment is the type of assessment which is done by the classroom teachers on a continuous basis. It is differentiated from the term-end examination, which is conducted at the end of an academic term, or session whose sole purpose is to grade and certify the achievement of the students. There are two aspects in continuous internal assessment. First, the assessment of students' performance is done by the internal teacher, not by an external examiner. Second, the assessment is carried out regularly and periodically at the end of a unit or a chapter. The teacher gets regular feedback about the progress of his/her students. Based on this evaluation, the teacher can diagnose the learning difficulties of his/her students and accordingly redesign his/her instructional strategies. The teacher can also know the development of cognitive and non-cognitive abilities of his students. Hence, continuous internal assessment is not only limited to assessing academic achievement in curricular subjects, but also includes the assessment of non-scholastic abilities like attitudes, interests, habits, values etc. made on continuous basis by means of class tests, assignments and semester-end or annual examinations. Continuous assessment performs three major functions in the teaching-learning process. These are teaching, learning and testing. Hence, it attempts to integrate teaching-learning with evaluation. Moreover, it provides scope to evaluate those skills, which cannot be evaluated at the end of the session through term-end examination. The objective of internal assessment should not be to rank students based on their performance but to improve their learning adopting remedial instruction. Further, it provides good insight to bring in systemic improvement.

The following are the Merits and Demerits of Continuous Internal Assessment:

Merits

- i) Regular feedback received through continuous assessment helps students to improve their academic performance.
- ii) A wide range of students' cognitive and non-cognitive abilities are assessed so as to make the evaluation process comprehensive, valid and reliable.
- iii) Students can know their progress and inadequacies in learning by receiving continuous feedback on theoretical and practical work.
- iv) Continuous internal assessment provides teacher an opportunity to make evaluation an integral part of the teaching-learning process, rather than a term-end activity.
- v) Teachers are able to diagnose the learning difficulties of the students and design remedial instruction for their students based on the diagnosis.

Demerits

- i) Continuous internal assessment may be subjective and biased as the teacher himself/herself is the examiner.
- ii) Since continuous internal assessment is confined only to the institution, it is difficult to compare the performance of students with students of other institutions.
- iii) Most tools and techniques used for assessing students internally are generally developed by the teacher himself/herself. These may, therefore, lack validity and reliability.

Tools for Continuous Internal Assessment

There are many tools and techniques which can be used for internal assessment. Some of these are: Achievement test, Quizzes, Home assignments, Individual and group project work, Laboratory Work, Library Work, Field Work, Rating Scale, Observation Schedule, Interview Schedule, Group Discussions, Seminar, Debates, Brain-storming, Panel Discussion etc.

17.6.2 Question Banks

One of the limitations of continuous internal assessment is that questions prepared by a classroom teacher to assess students' progress in learning may not generally be valid and reliable. In order to make continuous assessment valid and reliable, a teacher can take the help of question banks. A question bank envisages developing an exhaustive pool of questions in each course, assigning weightages to objectives, content and types of forms of questions and preparing model question papers for the guidance of teachers and students.

A question bank is a collection of questions or items to be used both for continuous assessment tests and term-end examinations. Like a bank where people deposit money and draw it whenever they feel necessary for their requirement, a school, a college or a university develops a large number of questions and put them in a question bank. It uses the questions for the purpose of various types of tests and examinations.

How is a Question Bank developed?

The pioneering work in the development of question banks was initiated by the Association of Indian Universities. It developed question banks in most subjects taught

at college and university levels. Though these banks were very comprehensive and were developed with the help of many experts, question banks can also be developed by an individual teacher or a group of teachers teaching the same subject for their use. There are different ways to develop question banks. Questions asked in the earlier examinations can be examined and chosen for developing banks. But this process may not be scientific. The most scientific and systematic method of developing question bank is to develop a large number of questions in a workshop. In such a case, subject experts are invited to the workshop and they develop questions of different types following various steps of writing a good question, such as analysis of content areas, specifying instructional objectives in behavioural terms, preparing a blueprint (table of specifications), writing test items as per the blueprint, finding out difficulty level and discrimination index of the items by carrying out item analysis and finding out the validity, reliability and objectivity of the items. Certain basic principles in forming such question banks are: (see SOE, IGNOU, 2004)

- i) A large number of questions/items must be stored. For example, in every paper (course), there are to be, say, 50 objective items, 10 short answer questions and 3 essay/problem solving questions. A bank that can be OPEN to teacher/students and others, should have about 40 to 50 times the number i.e., 1600 to 2000 objectives items; 400 to 500 short answer questions and 120 to 150 essay questions. The possibility of an answer bank for this is remote and if the students do memorise the answers to this large number of questions and come prepared, it will serve the purpose of educating them, since thorough coverage of syllabus is ensured.
- ii) Teachers on the other hand, should not feel obliged to provide answers to those questions from the bank, instead of teaching/instructing students on the concerned topics. They should point out to the students that the bank is after all only a sample and an examiner is not bound to select questions only from the bank. However, teachers can use these questions in periodical tests.
- iii) If the controller of Exam/Board of studies decides to keep the Bank CLOSED (Confidential) to teachers/students, well, the number of questions/items can be limited to say 800 objective items; 200 short answer and 60 essay type questions. Those will be constructed, pre-validated and stored in secrecy and only a few items/questions are distributed to students/teachers as specimen. The specimen questions are meant to illustrate what is expected of students and not to bind the examiner. Sample items on all competencies implied in assessment objectives can be given as exemplars.

After the items have been developed, they are stored in a question bank on a card with details of contents they measure, instructional objectives and psychometric properties like validity and reliability indices. Now-a-days, different softwares are available to store these items in a computer for future use. A question may arise that how many questions need to be developed for a question bank. The number of questions in a bank depends on the purpose of developing the bank. For example, one does find a large number of questions in the banks developed for institutional use. But that may not be possible if an individual teacher develops a question bank for his/her specific use.

Use of Question Banks

As we have already said, question banks are used for both continuous and term-end evaluation. Before developing a question paper or an achievement test, a teacher ought

to follow the steps of preparing a question paper or test items which we have discussed in the preceding paragraphs. Based on the content analysis, instructional objectives and weightage given to different aspects such as forms of questions, marks given to questions, time given to write different questions in the blueprint, a teacher can choose the test items/questions from the question bank. Another consideration which needs to be considered is looking for difficulty value and discrimination index of the items. If, the teacher prepares a norm-referenced test, he/she should choose items with highest discrimination indices and average (50 percent) difficulty level. But, if the test is a criterion-referenced test, the items with higher levels of difficulty level need to be selected. If the purpose is to diagnose the learning difficulties of the students, test items have to be selected accordingly.

From a computerized question bank, question papers can be generated by providing different combinations of content, instructional objectives and psychometric properties.

17.6.3 Grading

Grading is another aspect of examination reform, suggested by the UGC which has relevance for both continuous comprehensive assessment and term-end assessment. Although marking system has been widely in vogue in most educational institutions, there is growing concern not only among academics, but also with the UGC and the Central Board of Secondary Education (CBSE) to introduce grading in the examination system. This is because marking system suffers from certain inadequacies which are overcome by grading system. Marks or grades are indications of achievement obtained by students in an examination. Marks generally indicate the estimate of absolute achievement of a student, whereas grades convey the relative achievement of a student in an examination. Marks are numerical symbols (0-100) given to learner's performance, whereas grades are alphabetical symbols given to learners' performance. For example, Sanjay secures 90 marks in Mathematics is an example of marking system, whereas Jasbir obtains 'A' grade in Science is an example of grading system.

- 1) In marking system, a student's marks obtained in the examination may not be his true index of achievement as it contains error of measurement. For example, if Hari has scored 58 in Science, his score may be ± 5 of the obtained score. That means, his score of 58 ranges from 53 to 63. This variation is due to certain errors of measurement like error within the test, errors due to examiner's subjectivity, errors within the examinees, errors in test administrations and errors in scoring. For example, a test students appeared for was very difficult; questions were ambiguous, no clear directions were given in the question paper; items were poor, readability of the question paper was poor. All these are errors within the test. Errors due to examiners' subjectivity occurs when the same answer book is given to more than one evaluator and each one gives different marks. Due to personal problems of the examiner, a student may score less even if that is not his/her true score. The logistics in the examination hall like abrupt power supply, poor furniture may affect the scores of the student. Moreover, during test administration, invigilators may or may not be supportive to the examiners. Sometimes, there may be problem when scoring is done manually.
- 2) Second, marks are used to compare students in a group. For example, X secures 59 marks in Mathematics whereas Y secures 60 marks in the same subject. As a result, X is placed in second division and Y is placed in first division. Due to the difference of one mark, X suffers in the merit list. Such kind of interpreting marks is not precise and accurate as marks contain error of measurement.

- 3) Moreover, marks obtained by a student in different subjects cannot be compared objectively, as evaluators in these subjects use different ranges of awarding marks. An evaluator in Mathematics may use the full range of marks from 0 to 100, whereas a teacher of language may choose to use the range of 20 to 80.

The above limitations of marking system are overcome by the grading system as grading does not make fine distinctions as the marking system does. Grade unlike marks represents a range or a band of scores. In grading system, students are grouped into certain categories, say, five, seven or nine. Each category represents a particular grade, namely, A,B,C,D,E, etc. If there are five categories, it is called a five-point grading scale. Similarly, if there are seven categories, it is called a seven-point grading scale. These letter grades indicate some numerical values (grade point) as well as certain standards.

Grades	Numerical Values (Grade point)	Standards
A	5	Very Good
B	4	Good
C	3	Average
D	2	Bellow Average
E	1	Poor

Types of Grading

There are mainly four kinds of grading. These are: Direct Grading, Indirect Grading, Absolute Grading and Relative Grading.

Direct Grading

In direct grading, achievement performance of the students is graded directly without assigning any marks to students' answers. For example, if there are four long answer type questions, students are given four grades and then average of these four grades become the final grade for the students. While finding out the average grade, grade points of the respective grades are added and then average grade point is calculated.

Let us examine how overall grade is arrived at from a question paper having four essay questions.

Question No.	Grades	Grade Points
1	B	4
2	C	3
3	D	2
4	A	5

$$\begin{aligned}
 \text{Overall Grade} &= \frac{\text{Total of Grade points Obtained}}{\text{No. of Questions}} \\
 &= \frac{4 + 3 + 2 + 5}{4} = \frac{14}{4} \\
 &= 3.5
 \end{aligned}$$

Thus the overall grade point is 3.5 In order to know overall grade the following table is referred to.

Grade	Grade Point Range
A	4.50 – 5.0
B	3.50 – 4.49
C	2.50 – 3.59
D	1.50 – 2.49
E	0 – 1.49

Since the overall grade point is 3.5, the overall grade is B.

Indirect Grading

In the case of indirect grading, student's answers to questions are assessed in terms of marks. Then the institution devises some kind of grading scale in order to convert students' overall marks in a subject or in the examination into grade.

Absolute Grading

In the case of absolute grading, an institution defines certain standard (level of performance) of students' achievement in the examination or in any other co-curricular activities and associates a grade with a fixed performance level. Suppose we have divided the examinees into five different groups on the basis of their performance. Grade 'A' will be assigned to those candidates who secure 80% and above and will be categorized as 'outstanding'. The details of such a grading scale is presented below :

Score	Category Description	Letter Grade
80% and above	Out standing	A
60% to 79%	First Division	B
45% to 59%	Second Division	C
33% to 44%	Third Division	D
Below 33%	Unsatisfactory	E

In the above example, categories are predefined and each grade is associated with specific predefined standard.

Relative Grading

In this kind of grading, students in a group are ranked on the basis of their relative level of achievement. Therefore, relative grading is the process of assigning letter grades to students on the basis of ranking them on their relative level of achievement. The institution in this case takes a prior decision as to how many students would be awarded a particular grade on the basis of their relative performance. Let us examine the following example.

Grade	Relative Performance
A	Highest 10% to 20% of students
B	Higher 20% to 30% of students
C	Next 30% to 50% of students
D	Lower 10% to 20% of students
E	Lowest 0% to 10% of students

In the above example, top 10% to 20% of students will be assigned grade 'A' and bottom 0% to 10% of students will be assigned 'E' grade.

Check Your Progress 4

Notes: a) Write your answers in the space given below.

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

8) Why is continuous internal assessment criticized as a method of evaluation?

.....

.....

.....

.....

.....

9) What are the advantages of question banks?

.....

.....

.....

.....

.....

10) Differentiate between marking and grading?

.....

.....

.....

.....

.....

11) What are different types of grading? Why is grading preferable to marking?

.....

.....

.....

.....

.....

17.7 LET US SUM UP

Evaluation is an important component of an instructional process. It is concerned with whether the instruction has resulted in student learning and the extent to which the instructional objectives set by the teacher are achieved. Evaluation is closely associated with measurement. Measurement is the process of assigning numerical or alphabetical

symbols to events, objects, behaviour or psychological attributes, whereas evaluation is adding value judgement to what is measured. It is also concerned with decision-making. Evaluation is not only a session-end activity, but it is a continuous activity. When we talk of continuous and comprehensive evaluation, we mean that evaluation is a continuous process as well as comprehensive in nature. Continuous and comprehensive evaluation deals with formative and summative evaluation, evaluation of scholastic and non-scholastic learning outcomes. The University Grants Commission during seventies recommended five fold examination reforms programme. Out of them three aspects of reforms, namely, internal evaluation, grading system and question banks are particularly relevant for continuous and comprehensive evaluation.

17.8 UNIT-END ACTIVITIES

- 1) Visit a few colleges/schools in your locality and find out the existing status of continuous and comprehensive evaluation in these institutions.
- 2) Develop a detailed scheme of continuous and comprehensive evaluation that can be implemented in a school situation.

17.9 POINTS FOR DISCUSSIONS

- 1) In spite of several efforts, continuous and comprehensive evaluation has not been introduced as an integral part of school or college system. Discuss.
- 2) Do you think that grading system will remove the difficulties, which are presently found in marking system? Justify your answer.

17.10 SUGGESTED READINGS/REFERENCES

Aggarwal, Mamta and Prakash Ved (2004): *Continuous and Comprehensive Evaluation*, in J.S. Raput (ed.). Encyclopaedia of Education, NCERT: New Delhi.

Gornlund, Norman E. (1981): *Measurement and Evaluation in Teaching*, 4th ed. New York: Mac Millan Co.

School of Education (2003): Instruction in Higher Education, Block-3, *Evaluation Perspectives in India*, New Delhi: School of Education, Indira Gandhi National Open University.

Worthen, Blaire R. and Sanders, James R. (1987): *Educational Evaluation-Alternate Approaches and Practical Guidelines*, New York: Longman Inc.

17.11 ANSWERS TO CHECK YOUR PROGRESS

- 1) Measurement is the process of assigning numerical or alphabetical symbols to events, objects, behaviour or psychological attributes. For example, Ibrahim secures 90 marks in Social Studies is an example of measurement. But, evaluation is concerned with determination of a thing's value or adding value to what has been measured. In the example here, if we say, Ibrahim has stood first in the class, it becomes an example of evaluation.

- 2) Evaluation is very crucial in the teaching-learning process. It provides feedback on the effectiveness of instructional objectives formulated, content/learning experiences selected and methodology of teaching, which includes selection of methods, media and strategies.
- 3) Continuous and comprehensive evaluation is the evaluation, which is carried out on a regular basis and on all aspects of student learning-both scholastic/cognitive and non-scholastic/ non-cognitive.
- 4)
 - i) Continuous and comprehensive evaluation provides the teacher feedback on the learning progress of his/her students.
 - ii) It helps a teacher to diagnose the learning difficulties of the learners.
 - iii) The teacher can redesign his/her teaching-learning strategies based on the feedback received from continuous and comprehensive evaluation.
 - iv) The teacher can develop remedial teaching materials based on the continuous and comprehensive evaluation.
- 5) The basic purpose of formative evaluation is to obtain feedback on the progress of students' learning and accordingly to take appropriate instructional decisions. This type of evaluation is carried out through out the year. On the contrary, the basic purpose of summative evaluation is to grade the overall performance of the students at the end of a course or a programme and accordingly certify their performance in the course or the programme.
- 6) Evaluation of scholastic outcomes emphasize the extent to which cognitive/ scholastic abilities of a learner have been achieved whereas evaluation of non-scholastic outcomes stresses on the extent to which non-scholastic abilities (affective and psychomotor abilities) have been achieved.
- 7)

Non-scholastic Abilities	Tools of Measurement
i) Attitude	Attitude Scale
ii) Interest	Interest Inventory
iii) Social Relationship	Sociogram, Sociometric tests
iv) Personality	Inkblot technique
	Personality Inventory
- 8) Continuous and internal assessment is criticized because it tends to be subjective. The results of students cannot be compared with those of students of other institutions. The tests used for assessment are not valid and reliable.
- 9) Question banks contain questions which are valid, reliable and objective. Therefore, preparing a question paper selecting questions from question bank becomes a valid, reliable and objective question paper.
- 10) In marking system, numerical symbols (0-100) are assigned to the performance of the learners whereas in grading system, alphabetical symbols (A, B, C, D, E etc.) are assigned to the performance of the learners.
- 11) There are four types of grading, these are direct grading, indirect grading, absolute grading and relative grading. Grading is preferable to marking as it represents a band of scores for a particular grade. For example grade 'A' may represent 81-100 marks.

NOTES