
is on account of this that record of progress etc., are invaluable for all the students. The teachers should also provide opportunities where the students can successfully accomplish their task. If there are too many failures, the students are disheartened and they develop a feeling of frustration.

It is also necessary that the children are aware of the goals. Purposive striving for goals is much more fruitful than groping in the dark. It may be noted that motives have goals. If the goal is clearly perceived, the act will be very strongly motivated. Thus, the work should be definite in aim, within the capacity and interest of the pupil, but difficult enough to challenge effort in accomplishment.

Experiments by Judd in 1905 were among the first to demonstrate that practice without awareness of results had no effect on certain types of learning. For example, Judd found that if the children are asked to judge the length of lines and a practice is given to them in this respect without giving them any information regarding the progress made by them they hardly show any improvement in their judgement. But the correction of errors, supplemented by knowledge of progress, tends to improve the learner's judgement. Thorndike's experiments as reported in 1935 showed similar type of result both in the case of mental and motor behaviour. His experiments with nonsense words seemed to indicate that imperfect learning, under condition of self-direction, is risky in that it may strengthen incorrect responses. The experimental studies of C. L. Stacy with meaningful material led to the contrary conclusion that allowing the learner to discover facts for himself, and noting his own errors, progress is more effective than requiring him to accept readymade decisions and explanations.

9.6.7 Prestige :

Every individual wants to attain prestige in the group of which he is a member. If he does not get it then he makes all the efforts to gain it. Although the need of prestige is the same everywhere, yet it is not achieved by all in the same manner. A repressed tribal achieves this by behaving like a female of our culture while Mundugumors get it through aggressive behaviour. In our culture there are different means adopted by different people to achieve prestige. The teacher must realize that if a child comes from low caste family he will try to imitate the children of upper strata of society to gain prestige. The higher caste children try to gain prestige through good grades, divisions and pass in the examination. A child who comes from poor family may employ the aggressive behaviour for attaining prestige while a child from middle class family may try to achieve it through lovable behaviour, polite language and good manners. It is, therefore, essential that the teacher remains cautious in giving the motivation of prestige. They must provide motivations keeping the background of the child in his mind.

9.6.8 Level of Aspiration as Motive :

The concept of level of aspiration has been developed by Lewin. The operational definition of level of aspiration is that "it is the level of future performance of a familiar task which an individual expects to see." The level to "Which the individual believes that he will

perform the task is defined as expectation. The success is defined in terms of the individual's surpassing the level he expects to reach and the failure is defined as his unsuccessful in reaching the expected level.

The level of aspiration with respect to a particular task can be considered to be due to the operation of such motives as anxiety. Previous failures establish low level of aspirations and previous success high level of aspiration. A number of research workers have also noted that the level of aspiration differs with different persons so far as a realistic approach is concerned. Some people set a level of aspiration in keeping with their performance while others set a level of aspiration either much higher than they are ever likely to attain or very low. All these researches show that level of aspiration is very complexly determined and if treated as motivation, quite a good complexity is brought about.

Studies by Worrell, Walter, Martine, Clark, etc. have made attempts to analyze the function of level of aspiration. Worrell found that the student who set a reasonable level of aspiration for himself in line with his previous performance had a sound contact with reality and hence was successful in grade achievement. It was also observed by Worrell that the students whose levels of aspirations were considerable above their previous records were having relatively low scholastic standing.

9.7 The Psychological Basis of Motivation

The Psychological factor in all its varied forms is based ultimately on a sense of well-being and satisfaction. This satisfaction results from or accompanies anticipation of successful accomplishment of a task that is attractive in itself, a duty well done, or negatively in the avoidance of painful or undesirable consequence, such experience tend to impress themselves, and so they are easily remembered and learned.

9.8 Functions of Motives in the Learning Process

According to Gates, motives serve three functions in the learning process. They are as follows :

(i) Motives energize behaviour : Motives release energy and arouse activity. Thus, hunger and thirst induce muscular and glandular reactions. Praise, blame, reward, punishment, etc., are powerful incentives for many of our actions. They make us react in a particular way and are helpful in the learning process.

(ii) Motives are selectors of behaviour : They dispose the individual to react to some situations and to ignore others; they determine in considerable part how he will react to certain situations. When a newspaper is given to different people it is seen that everyone reads that column carefully for which he has got incentives. For example, a person out of employment will look to the "wanted" column most attentively and will remember many of the vacancies

verbatim; on the other hand, a sportsman will read the sports news most carefully.

(iii) Motives direct behaviour : Motives are not merely the selectors but also the directors of behaviour. They direct behaviour in such a manner that the individual gets the satisfying feeling. It is, therefore, necessary that for improvement in his learning the individual should be made active and motivated to direct his energies towards well defined and attainable goals.

9.9 Application of Motivation in School Learning

The new conception about education is that it should take place in and through the life situation, that is, through occupational activities true of life and carried out in that spirit of co-operation and responsibility necessary for human beings banded together in a community. It encourages co-operation and does not encourage exaggerated competition. However, in the schools, marks, divisions, degrees, in scholarship contests, etc., are considered to be much reputable incentives for stimulating intellectual endeavour. Much of the school learning, therefore, suffers on account of these false incentives, and progress in social adjustment is much hampered.

Motives have great educational significance but their proper use at the right moment is essential. False incentives or too much importance on extraneous factors hamper school learning to a great extent. They are to be avoided.

The incentives which are of value to education include interests, attitudes needs, and purposes. Gates says : Learning experiences are meaningful when they are related to the individual interests, When they are involved in his living, when they not only contribute to his purposes at the time but enable him to make more intelligent adjustments in the future. When they involve discovery and problem solving rather than formal drill or mere memorization, and when they result in satisfying social relationship.

9.10 Summary

1. Learning is relatively permanent change in behaviour as a function of practice. It is of two kinds : Formal and Informal learning. By Formal learning we mean such learning which follows a particular procedures methodologies institution syllabus and teachers also. School is a beautiful example of it. It continues till life.

On the other hand by informal learning we mean such learning which follows on fixed or dictated procedure or methodology. It does not require a particular place of learning, particulars to teach particular syllabus to follow and specific methods to be adopted. Such learning usually begins from home which is considered to be the first educational institution for children.

2. Motive can be defined as a tendency to activity initiated by a drive and concluded by an adjustment.

3. A distinction can be made between need, drive, incentive, and motive. Though all these words are used in connection with the motivations which energize and activate particular types of behaviour yet they are differently defined.
4. The psychological factor in motivation is learning. In education, motivation is the art of stimulating interest in the pupil, where there has been no such interest, the teacher can improve the conditions of effective learning by motivating the children. Motives can be mainly divided into two classes : (i) Internal motivations, and (ii) External Motivations.
 Natural motivations can be sub-divided into three categories : (a) motives due to energized behaviour, (b) Due to selectors of behaviour and (c) Motives of direct behaviour.
5. Motivation and incentives have important role in learning. Intention to learn, ego involvement, praise and blame, rivalry, punishment and rewards, knowledge of progress, prestiges and level of aspiration as motive etc. Plays very important role in learning.
6. Motives energize behaviour, select behaviour and direct behaviour Thus, its role is that of Energizer, selector and director.

9.11 Key Words Used

Formal	objective	acquainted
motivation	incentive	informal
dictated	methodology	procedure
behaviours	emotional	development
neighbourhood	institution	informal
incentives	motives	stimulations
contradictory	tendencies	relatively,
satisfaction	achieving	prominent
activities	attainment	differentiated
avoidance	anxiety	motivational
environment	approval	punishment
embarrassment	antagonism	complicated
researcher	involvement	attitude
complex	functioning	successful
aspiration	operational.	

9.12 Questions for exercise

9.12.1 Short answer type questions :

1. What do you mean by motivation ?

Ans. See 9.2

2. Point out the differences between need, drive, incentives and motives.

Ans. See 9.3

3. Distinguish between formal and Informal learning.

Ans. See 9.1

4. Explain the psychological basis of motivation.

Ans See 9.7

5. Explain the functions of motives in learning.

Ans See 9.8

9.12.2 Long type questions :

1. What do you mean by motive ? What are its psychological basis and functions ? Describe the application of motives in school learning.

Ans. See 9.2, 9.7, and 9.9

2. Distinguish between incentive and motivation. Discuss the role of motivation and incentives in learning.

Ans. See 9.4 and 9.6

9.13 Suggested Readings

1.	Sulaiman, Md & Sinha, R. K	:	Adhunik Siksha Manovigyan
2.	Chauhan, S. S	:	Advanced Education Psychology
3.	Skinner, C.E	:	Educational Psychology
4.	Chronbach	:	Educational Psychology.

EXAMINATION**Lesson Structure**

- 10.0 Objective of the Lesson**
- 10.1 Meaning and Nature of Examination**
- 10.2 Characteristics of Examination**
- 10.3 Values of Examination**
- 10.4 Types of Examination**
- 10.5 Essay Type Examination**
 - 10.5.1 Merits of Essay Type Examination**
 - 10.5.2 Demerits of Essay Type Examination**
- 10.6 Improvement of Essay Type Tests**
- 10.7 Improvement in Evaluation**
- 10.8 Objective Tests**
 - 10.8.1 Merits of Objective Tests**
 - 10.8.2 Limitations of Objective Tests**
- 10.9 Types of Objective Tests**
 - 10.9.1 True-False Tests**
 - 10.9.2 Multiple Choice Tests**
 - 10.9.3 Completion Tests**
 - 10.9.4 Matching Tests**
- 10.10 A comparative study of Essay Type and Objective Type Examination**
- 10.11 Summary**
- 10.12 Key Words Used**
- 10.13 Questions for Exercise**
 - 7.13.1 Short Answer Type Questions**
 - 7.13.2 Long Answer Type Questions**
- 10.14 Suggested Readings.**

10.0 Objective of the Lesson

The Present lesson is concerned with various aspects of examination hold for testing the students knowledge. The main purpose of the lesson is to give idea about the nature, characteristics, value, and types of examination to thelearners. The two types of examinations namely, essay type and objective type will be discussed in detail along with their merits and, limitation. Besides, a comparative study of essay type and objective type examination will be made. It is hoped that learner will get advantage of going through the lesson. The lesson will also persent summary, key words, questions for exercise and suggested readings.

10.1 Meaning and Nature of Examination

The term, examination is very frequently used in our day-to-day life in different spheres for different purposes. In general, we meanly examination an investigasation into some special trait of a person or object. For example, a doctor examines the patient for diagnosis of a disease and a teacher examines academic knowledge ofa student.

In educational psychology examination is used not in a general sense rather used in a broad and scientific sense. Examination refers to some scientific methods which are used to test the acquired knowledge of a student. In other words, it can be said that examination is that system which can be used to measure the knowledge of a student. Students learn different subjects in schools and develop different types of skill and teachers like to know about those skills, in the same way they are able to know about the success of their teaching with the help of examination. A teacher is able to evaluate the student, classify the sutdents and can also plan for the future of the students. Singh A.K . has defined examination in the following words :

"Examinations are procedurés through which the teacher assesses the skill and knowledge of learners" this definition has following important points.

1. Examination isa scientific procedure
2. It is conducted by the teacher
3. In measures knowledge and skill of a learner
4. It is a measurment procedure

Sulaiman has also defined examination in the following words—

"By examination we mean the tests which attempt to measure the attainment of pupils in the various important objectives or area of thecurriculum."

It has following important aspects :

1. It is a measurement technique.
2. It measures achievement of curriculum of strudents
3. It measures the knowledge of the students.

10.2 Characteristics of Examination

The characteristics of a good examination are as follows :

1. A good test actually measures what it is supposed to measure. This we call validity.
2. It must measure the characteristics and achievements accurately and consistently. This is referred to as reliability.
3. It must have objectivity.
4. It must discriminate between good and bad students. This we call discrimination.
5. It must have so many questions or so much length that it can evaluate all the aspects. This is known as comprehensiveness.
6. It may be easily put to use. This we call usability.

Now we will in brief deal with all these six characteristics.

1. **Validity** : A test is called valid when it measures the ability for which it is constructed. Hence, A test should be able to achieve the purpose which is in the mind of the examiner.

The validity of any test cannot be obtained by any simple formula. A test may be valid for achieving a particular goal but the same test may have no validity when the goals or purposes to be achieved are different. Therefore, we cannot call any test as generally valid.

2. **Reliability** : When a test measures an individual's ability consistently accurately then that test is known as reliable. The test has a high reliability if at different times it measures the ability with some accuracy.
3. **Objectivity** : The objectivity of a test can be assessed in two forms. In one form it is obtained in the award of the marks and in the other in interpreting the meanings of various questions in the test by the examinee. The first means that the teacher's own personality should not influence his assessment of the answers of the examinees. This is very difficult to obtain in the essay type test.

The second means that the questions should not be so complicated that every individual may assign a different meaning to them. All the examinees who have knowledge about that subject should understand it in the same manner. Two or three meanings of a question reduce its objectivity because then that question is answered differently by different individuals.

4. **Discrimination** : A good test is that which can differentiate between a good and bad student. The test should have difficult questions which can be solved by the brilliant students, and it should also have easier questions which can be solved by the weak and normal students. As a matter of fact, the test should have questions

in the order "from easier to difficult."

5. **Comprehensiveness** : In a test there should be so many questions that they can measure in a comprehensive manner the ability for which it is constructed. Therefore, for validity, comprehensiveness is extremely necessary. It is not easy to make a test fully comprehensive, still a teacher should remember that if he is designing a test, he should keep so many questions in it that he can test the achievement of the child quite comprehensively.
6. **Usability** : A test should be able to be administered with ease. In constructing it this fact should not be overlooked. Besides this, the test should be such that it can be evaluated without any difficulty. A good test is one in which the children can answer each question with ease and comfort and the teacher can award marks without any difficulty.

10.3 Values of Evaluation or Examination

1. **Evaluation makes it possible to attain success in teaching** : Through evaluation, we are able to find out how far we are successful in obtaining the aims of education. Through it we are able to assess the success of our teaching. We continue with the methods which have led towards the success of our students in examination, and modify those which have resulted in the failure of our students.
2. **Evaluation helps in clarifying the objectives** : Evaluation is based on objectives. When a subject is taught then through evaluation of the objectives of teaching the various topics in that subject are clarified to the teacher. He tries to understand the aims of each topic in the light of their utility in evaluation.
3. **Evaluation motivates good learn** : The students try to learn the various topics after understanding their aims and objectives because they know that the measurement of their learning will be done through tests. These tests are constructed on the basis of the aims involved and various topics they cover whole of the syllabus in that subject. Hence, a student tries to learn the subject thoroughly well so that he can get through in examination.
4. **Guidance can be given on the basis of evaluation** : Evaluation makes the individual differences clear. Hence, it is of great utility in giving guidance. On the basis of the measurement of abilities, the child can be given vocational or educational guidance.
5. **Through evaluation changes can be brought in the curriculum** : The world is progressing at quite a rapid pace these days. The new investigations in the field of education are putting new principles before us. These are individual of the fact that the curriculum cannot remain static. It should always be changing. Evaluation is useful from this point of view also.

10.4 Types of Examination

Following are the important types of examination.

1. Oral examination
2. Written examination
3. Performance examination
4. Open book examination
5. Close book examination
6. Written examination

As the name suggests in written examination, other than oral, a student has to write answer in answer book. It has been developed to overcome the drawbacks of oral examination for children as follows :

1. Selected (few) questions are asked.
2. One examinee is provided very less time.
3. Possibility of prejudice and bias.
4. Some may suffer due to nervousness.
5. Evaluation is not the same.
6. It is not suitable for those who are suffering from speech defect.

Just opposite to oral examination, in written examination few questions are asked and on the basis of that evaluation is done. Written examination is of two types :

1. Essay-type examination
2. Objective type examination.

10.5 Essay Type Examination

For quite a long time the pupil's progress was measured through teacher-made essay type tests. These tests were subjective in nature. They were dependent on the teacher's bias and prejudice. In their administration there was nothing in particular. The teacher had to choose only a few questions out of the whole course in the subject and put them in the form of a paper. This paper was administered to the students under proper supervision to avoid copying. The students were required to answer the questions in a limited time. On the basis of the written answer the teacher evaluated them. His marking was usually dependent on his own notions of a good answer. Skinner defines essay type examination as under—The essay type examination usually made up of five to six questions in which the teacher requires an explanation or description, the student is asked to organise his ideas in paragraphs and sometimes in outline form."

10.5.1 Merits or Advantage of Essay Type Examination

Simple Procedure :

The procedure of essay type examination is very simple for the teachers and administrator to conduct. In this type of examination questions asked require answer in a given time, and on the basis of answers skill and knowledge of a student is measured.

Extensiveness :

This type of examination is extensive as it requires detailed answer and deep study.

1. Easy in construction :

The construction of the questions is quite easy. From every topic, the questions can be constructed with great ease.

2. Simplicity :

Their method of administering these types of tests is simple.

3. Control :

They promote originality and creative thinking. The student can give his answer uninhibited by any undesirable controls.

4. Improvement on Language :

They encourage language grasp and ask for good expression from the students.

5. Freedom of Expression of Thought :

Each and every student has freedom to express their thought and views in own way. Nothing is restricted.

6. Increase in Integration and Reasoning Capacity :

As this type of examination is very descriptive and explanatory so it is necessary to organize the answer with insight.

7. Increase in Creative Thinking :

Sometimes this type of examination requires to answer in such a way that it requires creative thinking. Write 10, 20 lines on a given topic. It helps to increase in creative thinking of a person.

8. Evaluation of Language :

It automatically evaluates language of the student whether written in English or Hindi.

9. Lack of Observational Fallacy :

It is free from the observational fallacy like oral examination because the student is not present there. So, it is also free from bias.

10.5.2 Demerits or Limitations of Essay Type Examination :

1. Low reliability & validity :

The essay type examination possess no reliability or validity and they are incomprehensive.

2. Subjective in Nature :

They are subjective in nature. The same examiner may award different marks on the same answer of the same individuals at different times. An examinee who awards some marks on the answers of a question of an examinee today may after six months award different marks on the same answer at re-examination. This fact has amply been proved by many studies. In India, sometimes in an examinee has to examine hundreds of copies within a very short period of time and hence he fails to examine the answers very carefully.

3. Inclusion & irrelevant fact :

Many irrelevant facts are added to the answer of essay type questions.

4. Unscientific Marking :

The main drawback of this examination is unscientific because of selection of question and evaluation of answer books.

It is affected by individual difference. Woody & Carter has given the following reasons of becoming unscientific :

1. Insufficient Time :

Sometimes the teacher even don't get proper time to evaluate answer book so it reduces the reliability of examination.

2. Mood of the Teacher :

Evaluation of the answer books affected by the mood of the teacher resulting in average marking.

3. Prejudice and Bias :

Evaluation of answer books may also be affected by prejudice and bias of the teacher towards students.

4. Limited Coverage :

It is limited because of questions asked from the whole curriculum. Each person is not selected for examination.

5. Emphasis on Rote Learning :

This type of examination emphasizes on the rote learning because students want good marks so they go through the material without learning or understanding properly.

6. Ambiguity of Questions :

Some time questions are asked in such a way that it bears two meaning and make it more complex. Some students don't understand it properly. They attempt the question in a wrong way.

7. Tendency and Encouragement for Guess and Study :

The curriculum of this examination is vast but students dislike to study whole portion.

They make selection of certain topics and study. The students bear incomplete knowledge of the subject.

10.6 Improvement of Essay-Type Tests

A teacher can avoid the weaknesses of the essay-type examinations by preparing the essay papers very carefully, and adopting better methods for their evaluation. The teacher by careful planning and proper training can make the essay questions in such a manner that the answers to them may be obtained in an objective manner.

Improvement in the preparation of Essay-type Questions :

The teacher should try that the essay type questions cover material that has been taught. The questions sometimes put in the essay examination are 'trick' questions. They are to be avoided totally. The teachers who indulge in framing trick questions spoil all the chances of making essay type examinations a valid and reliable instrument of measurement. 'Trick' questions are not meant to test the achievement of the child. They may test the facility of the child to look into the words. Obviously, in the evaluation of achievement this is seldom our aim. Also, the essay type examinations are said to cover only a part of the course. Hence more questions are to be included in the essay paper so that the material from whole of the course may be enquired into.

The essay type questions should not merely put premium on memory but they should be planned in such a manner that they encourage the child to do creative thinking. The questions should ask the students to discuss, comment and evaluate the various aspects of any topic. These reforms will bring out clearly the good points of the essay type examination.

Lastly, we may say that making the test questions of essay type the teacher should keep the following in his mind :

1. First, write down what is to be measured and then phrase questions to evaluate that.
2. Phrase questions so as to permit a relatively free response, but be specific enough so that pupil know what they are supposed to do.
3. The problems posed in an essay type question should have a 'reasonable' separation from the student's original learning situation.
4. The student answering the questions should be encouraged to use his own 'frame of reference', to reveal his method of reasoning, to show reasons for his choice of material and to defend any position he takes.
5. As far as possible, arrange questions in order of difficulty with the easier questions appearing first.

10.7 Improvement in Evaluation

Before answers to essay questions are evaluated for correctness, the teacher should familiarize himself thoroughly with all possible forms that the answer may take. The weakness in the essay type examination is often due to the fact that the students who answer a question in a different manner than that which is expected by the teacher, get low marks, even though the different approach may be entirely correct and may be warranted by the nature of the question. If the teacher acquaints himself thoroughly with all the aspects of the answer to the question he will not commit the error of marking the question as wrong.

Another weakness can be removed by making the marking completely objective. The teacher should not be guided by his mood in marking the answer. If he is feeling bored in reading an answer he should put it away for sometime till he has a better bent of mind to evaluate it. He should try to standardize his marking. This means that approximately same marks should be awarded on similar answers.

The teacher can also make his instrument a valid means of evaluation if he prepares some short form tests. With the help of those he can evaluate the learning over whole of the subject matter taught in a particular time. The frequent administration of teacher made short form tests during a term or a year is an excellent means of helping a teacher to evaluate his own teaching success as well as the learner's progress.

The best course the teacher can adopt to evaluate accurately.

1. Unhealthy Competition :

These tests develop the spirit of unhealthy competition among the students and give more weightage to the ability of memorization.

2. Improper evaluation :

Through them, proper evaluation of the abilities of the individual cannot be made. The students read cheap notes. They are encouraged to read ready made answers instead of trying to gain in knowledge.

3. Chance Error:

They have in them an element of chance. A student who has read a day previous to the examination, the same thing which are asked in the paper, can do much better than a student who has read throughout the year but has failed to read, a day earlier, the things asked in the paper.

The manner in which these examinations are conducted in our country has been responsible for the inclusion of many other serious defects in this type of examination. They are :

1. They adversely affect the health of the students. The days for examinations are fixed and the student during these days studies for 12 to 14 hours and thus much strain is put on him which tells upon his health.

2. From the psychological point of view, many children are dragged towards abnormality. They lose mental balance. The excessive strain and the element of chance involved in this type of examination creates nervous tensions among the students.
3. Many students try to adopt dishonest means. They make every effort to get the hints of the papers and to copy in the examination hall.

The above mentioned three defects are in fact the defects of the examination system rather than the defects in the essay type examinations.

Here we can also say that though the essay type examinations have so many defects, yet they are not totally useless. They have some good characteristics also. If these tests are properly constructed and are used at proper occasions, they can prove to be useful.

10.8 Objective tests

Objective tests are of two types :

1. Standardized objective tests.
2. Teacher made objective tests.

In both these types of tests, the main difference is that in the former the tests are standardized and they are constructed by the specialists and the latter are constructed by the teachers. The former can be generally used but the latter can be used at special places in specific form.

10.8.1 Merits of Objective Tests :

Objective tests have various good points (merits), which are as follows :

1. **They are more objective** : Objective tests are not dependent on the teacher's whims and fancy. They are marked with accuracy and since the answers are short and definite to the questions asked, there is no question of subjective bias entering. In evaluating them the teachers have no freedom to mark in any way they like. They have to award marks according to the scheme prepared beforehand and on the basis of their standardization.
2. **They are more reliable** : The defect in essay type examinations is that there is no consistency in the answers given to the same questions by the same students after a lapse of time even when any further schooling is not done and no loss of memory has taken place, the answers being dependent on the mood, environment and emotional state of the student. This is not the case with objective type examinations. It has also been found that the marks given in the essay type examination by the same examiners on the same answers differ very widely in range. Thus they are totally unreliable. In objective tests there is consistency in marking. At different occasions even different examiners award similar marks on the same answer.

3. **They are accurate** in the sense that the measurements are nearly equal at all points of scale. In measuring through objective tests all the points in the scale of measurement are given nearly equal importance. Thus no part has more weightage than the others.
4. **They are more comprehensive and have wider coverage** : The objective tests are not limited to the testing of only one portion or one part of the subject matter. They have questions which cover many aspects of the subject matter. The student cannot do well in these tests by learning only selected portions. He has to master all the relevant portions of the subject learnt.
5. **They can easily be administered and marked** with economy of time and effort. For both examiners and pupils, there is no difficulty in their administration. All the pupils can be given these tests simultaneously. Also, since they require very short answers, limited time is required in which they are to be answered. This effects economy in time. The teacher can also mark them in a short time and without much effort on their part as the answers will be to the point and can be judged at a glance.
6. The results, obtained through objective tests, can be easily interpreted, in scientific manner.
7. They bind themselves to organisation in a variety of forms. Essay type questions, as a rule, are restricted to a few limited forms. Objective tests have questions of the "True-false type", "Multiple choice type", "Completion tests" and "Matching test". Thus there is variety even in one objective test which does not let the interest of the students wane. In essay type the questions can only be of one type and often they create boredom among those to whom they are administered.

The above are the merits of the new type of tests which have made them a better instrument of evaluation than the essay type tests. Hence, their use has tremendously increased these days.

10.8.2 Limitations of Objective tests :

Though the superiority of objective tests over essay tests is established yet we cannot say that they are perfect instruments of evaluation. They also possess many limitations, which are :

1. These tests fail to test the language grasp of the students. Since the answers required in the objective tests are very short in nature, there is no possibility of a student his language grasp over the subject-matter. We cannot properly gauge from these tests as to how much grasp from these tests as to how much grasp over the language a students possesses. This can only only be properly done through essay essay type tests.
2. These tests also fail in giving encouragement for better expression. In life situation a person, however much he knows, will be a failure if he does not posses the art of expression. If he cannot express himself, he cannot make himself understood. The very short answers to the questions on the objective test rule out the

possibility of good expression. In this respect, essay type examinations are much better.

3. These tests do not inculcate creative thinking among the students, as the answers are given in stereotyped manner. At some place "T" is written, at another "F" and so on. Thus they fail to inculcate creative thinking. In essay type examinations there is scope for writing answers on the basis of their own thinking. Often such questions are put in an essay examination which require the discussion of a topic. In doing so, the creative thinking of the individual is clearly involved.

10.9 Types of Objective Tests

Objective tests are usually of short answer types of tests. In them are included various types of questions which require the answer in a word or so. The types which are included in objective tests are usually true-false tests, multiple choice or multiple response tests, completion tests or of simple recall, matching tests, and identification or cross out tests.

10.9.1 True-False Tests :

The true-false consists of statements, each to be rated in terms of its relative truth or falsity. Whether the statement is true or false is usually to be indicated by "T" or "F", "Yes" or "No" etc. The individual is asked to write the identifying letter or symbol before the statement or in a column arranged for that purpose.

An example of such type of tests can be given as follows :

Directions : At the right of the page next to each statement place a "T". If you think the statement is true, or an "F" if you think the statement is false.

1. Akbar, the Great, died in 1902.
2. Water is a compound of hydrogen and oxygen.

The advantages in this type of questions are that they can be answered easily and quickly and can be easily scored. They should, however, be put in simple language and must avoid a definite sequence of "T" and "F". In order to eliminate the factor of chance, the test should consist of at least 50 statements.

10.9.2 Multiple Choice Tests :

In this form of test usually three or more words, phrases or sentences are presented from among which the best or most logical items are to be selected. The item of choice may be indicated by underlining, crossing out etc.

An example of the multiple choice test may be as follows :

Directions given to students—Read each question carefully. Then place a tick (✓) in the space provided for it against an item that best answers the question.

1. The main crop of Bengal is
 - (a) Rice ()
 - (b) Wheat ()
 - (c) Jute ()

2. Monsoon sets in Chennai in
(a) Jan–Feb. ()
(b) Jan–Jul. ()
(c) Nov–Dec. ()

Why multiple-choice items are most widely used ? The tests users prefer to use multiple choice questions. It is on account of the fact that they give more chance to think. They reduce the element of chance. They can also be devised easily than the other type of tests. They can be marked easily.

But in the use of multiple - choice items care must be taken to construct such questions which are free from the ambiguity of meaning. There should be gradations of possible correctness so that the subjects i.e., challenged to choose that item which is the best answer.

10.9.3 Completion Tests :

In this type of test a sentence, a word or a phrase are omitted which are to be supplied by the students. The form of tests extend from the omission of the word in a sentence to a number of words in a paragraph which need to be filled in so that the meaning of the paragraph is clear. For example :

Directions : Fill in the correct word in each blank :

- (1) The capital of Germany is
- (2)built by Shah Jahan, is a building which is standing bank of the Yamuna.

Defects :

Completion type of tests suffer from these defects :

- (i) the designing of these types of tests is difficult;
- (ii) the cues that serve as directors of thinking are not balanced properly, this makes the tests less objective;
- (iii) also the scoring in such type of tests is quite difficult. Testers often try to score the answers on the basis of the word or words they consider best. This is a wrong attitude. The scoring of completion type of questions should not be restricted to complete adherence to the words or phrases of the sky, since logical reasoning, not rote memory, should be measured.

10.9.4 Matching Tests :

In matching tests, the data are given in two columns. Each item in one column is associated in meaning with an item in the other column. The students are asked to enter against each item in one column the letter or number of an item in the other column that is most closely associated with it. For example :

Directions : In the margin to the left of each item in column I place the number of the

item in column II that is most nearly associated with it.

Column I	Column II
..... Bell	1. Theory of Relativity.
.....Edison	2. X-ray
.....Faraday	3. Telephone
.....Volta	4. Theory of Evaluation
.....Newton	5. Induction or Electric Current
.....Einstein	6. Theory of Gravitation
.....Darwin	7. Electric Cell
.....Thompson	8. Wireless
.....Marconi	9. Motion Picture.

In order to increase the difficulty of association, sometime more items are usually placed in one column than in the other.

10.10 A comparative Study of Essay Type and Objective Type Examination

Following are the important features of both the examinations :

1. Thinking and writing is important in essay type examination while reasoning is important in objective type examination.
2. Essay type examination is limited while objective type has wide coverage as questions are selected from each part of the curriculum.
3. Evaluation of objective type examination is more scientific than essay type examination.
4. An objective examination requires less time and energy than essay type examination.
5. Guessing is possible in objective type examination while it is not possible in essay type examination.
6. Essay type examination gives us knowledge about organizational ability while it is not possible in objective type examination.
7. Construction of the test is simple and easy in essay type examination while it is complex and difficult in objective type.
8. Essay examination also measures attitude, interest and personality while objective examination does not.
9. Speed of writing increases in essay type examination but not objective type examination.
10. Essay type examination is a recall test while objective type is recognition test.

10.11 Summary

1. Why is evaluation necessary in education ? The answer to this question is that through it we are able to assess (i) how far the objectives of education have been achieved, (ii) how far the general aims of various subjects have been achieved, and (iii) how far the class room teaching is effective.
2. Evaluation helps us in measuring an ability but to measure it we require reliable instruments of measurement. Through these instruments, we can measure Achievement, Intelligence, Aptitude, Interest and Character. In achievement tests, the knowledge acquired is measured. These tests are of two types : (1) General achievement tests, and (ii) Diagnostic tests.
3. Achievement tests can be given as (i) Oral tests, (ii) Essay type Tests, (iii) Objective tests, and (iv) performance tests.
4. In essay-type examination, the teacher gives a few selected questions to students who are required to discuss or describe the solution. These questions are representative of the whole of the syllabus which the child has studied till the time of his examination. These tests suffer from many defects. But they also possess some merits. If the essay type of question paper is prepared in a desirable manner and the method of its evaluation is reformed, then it can be usefully employed.
5. Objective tests are of two types : Standardized objective tests, and Teacher made objective tests. Objective tests have the merits of objectivity, validity, reliability, comprehensiveness etc. In this test, four simple types of tests are included. They are : (i) Completion tests, (ii) True-False tests, (iii) Multiple choice tests, and (iv) Matching tests.
6. In a good test these characteristics are essential : (i) Reliability, (ii) Validity, (iii) Objectivity, (iv) Differentiation, (v) Comprehensiveness, and (vi) Usability.
7. The uses of evaluation are :
 - (i) through evaluation the success in education is possible.
 - (ii) evaluation helps in classifying the educational objectives,
 - (iii) evaluation motivates better learning,
 - (iv) guidance can be given on the basis of evaluation, and
 - (v) evaluation can help in bringing changes in the curriculum.

10.12 Key words used

Objectivity,
reliability,
usability,
measurement,

Consistently,
discrimination,
evaluation,
chance error,

Validity,
comprehensiveness,
motivation,
curriculum,

increase,
prejudice,
preparation,
instrument,
measurements,
multiple,

requires,
emphasis,
premium,
evaluate,
weightage,
compound,

carefully,
improvement,
approximately,
standardized,
organisation,
achievement.

10.13 Questions for Exercise

10.13.1 Short Answer type questions :

1. Explain the meaning and nature of examination.

Ans. See 10.1

2. Explain the characteristics of examination.

Ans. See 10.2

3. What are the importance of examination ?

Ans. See 10.3

4. What measures can be taken to improve essay type examination ?

Ans. See 10.7

5. What measures can be taken to improve evaluation ?

Ans. See 10.8

6. Distinguish between essay type and objective type examinations.

Ans. See 10.11

10.3.2 Long Answer type questions :

1. What do you mean by examination ? Explain its nature, characteristics and values of examination.

Ans. See 10.1, 10.2 and 10.3

2. Evaluate essay type examination. What measures are required to improve its qualities ?

Ans. See. 10.5 and 10.6

3. Explain the merits and demerits of objective type of examination.

Ans. See 10.9

4. Discribe different types of objective tests.

Ans. See 10.10

10.15 Suggested Readings

- | | | | |
|----|-----------------------------|---|---------------------------|
| 1. | Sulaiman, Md & Sinha, R. K. | : | Adhunik Siksha Manovigyan |
| 2. | Sorenson | : | Psychology of Education |
| 3. | Mathur, S.S | : | Educational Psychology. |

EDUCATION OF SPECIAL TYPE OF CHILDREN**Lesson Structure**

- 11.0 Objective of the Lesson**
- 11.1 Education of Exceptional Children – An Introduction**
- 11.2 Meaning of Defination**
- 11.3 Importance and Needs of Special Education**
- 11.4 The Physically Handicapped Children**
 - 11.4.1 Problems of Adjustment of the Physically Handicapped Children**
 - 11.4.2 Education of the Physically Handicapped**
- 11.5 Education of Backward Children**
 - 11.5.1 Problems of Backward Children**
 - 11.5.2 Identification of Backward Children**
 - 11.5.3 Characteristics of Backward Children**
 - 11.5.4 Administrative Provisions for the Education of Backward Children**
 - 11.5.5 Psychological Factors Involved in Teaching Backward Children**
 - 11.5.6 Application of Learning Theory to the Problem of Backward Child**
 - 11.5.7 Causes of Backwardness**
 - 11.5.8 Specific Type of Backwardness**
 - 11.5.9 Remedies for Backwardness**
- 11.6 Mentally Deficient Children**
 - 11.6.1 Kinds of Mental Retardation**
 - 11.6.2 Adjustment and Education of Retarded Child**
- 11.7 Meaning and Definition of Gifted Children**
 - 11.7.1 Identification of Gifted Children**
 - 11.7.2 Prominant Characteristics of Gifted Children**
 - 11.7.3 Educational of the Gifted Children**
 - 11.7.4 Administration Provision for the Education of Gifted Children.**
- 11.11 Summary**
- 11.12 Key Words Used**

11.13 Questions for Exercise

11.13.1 Short Answer Type Questions

11.13.2 Long Answer Type Questions

11.14 Suggested Readings.

11.0 Objective of the Lesson

There are various objectives of the present lesson. One of its major objective is to explain special types of children. Under this heading physically handicapped, backward, child, mentally retarded child and gifted child will be taken for discussion. I further the important characteristics for their identification, their adjustment, problems and remedies of those problems through proper education will also be discussed. It is hoped that the learner could answer the relevant questions after proper study of the present learning material. Moreover, a summary, key words, questions for exercise and suggested readings have also been given for further reading.

11.1 Education of Exceptional Children

The education of exceptional children is quite a stimulating and interesting field for educators and for those who are concerned with the welfare of exceptional children. It is particularly an important area of study and research for those who have accepted teaching as a profession.

In India, it is a quite new field which was totally neglected before independence. The field of special education attracted the attention of politicians, parents and educators after 1947. In the British regime, sporadic efforts were made by individuals, parents and some enterprising teachers to cater to the needs of exceptional children but the society at large had a pathetic attitude towards these children. They were left unattended on the mercy of the society, and hardly an institution existed that could cater to the needs of this group of children.

11.2 Meaning and Definition

The exceptional child is difficult to define because the term exceptional has different meanings. It represents medical as well as psychological groupings of children. Some psychologists mean by exceptional, extraordinary talents, others may use the term for dull or backward children who lag behind in academic achievement.

According to Cruickshank, W. M. an exceptional child is he who deviates physically, intellectually, emotionally and socially so markedly from normal growth and development that he can not be benefited from a regular class-room programme and needs special treatment in school.

Psychologists have made attempt to define the term exceptional child but no single

definition has been agreed upon by them. Kirk S. A. in his book, "Education Exceptional Children, has given a comprehensive definition of exceptional child which is reproduced as follows :

"An exceptional child is he who deviates from the normal or average child in mental, physical and social characteristics to such an extent that he requires a modification of school practices or special educational services in order to develop to his maximum capacity, or supplementary instrument."

The term exceptional represents children on both the extremes of achievement in intellectual work. Both definitions cited above define the exceptional child as a deviate from the normal growth in various dimensions of development and who requires special attention in school.

11.3 Importance and Needs of Special Education of Exceptional Child

India is a democratic country in which education plays an important role to provide opportunities for the development of the potentialities of individual to contribute for the development of the nation. Our constitution has made provision for universal education upto the age of 14 years. All agree that education should reach to all children irrespective of their caste, creed and religion. Every body should get equal opportunity to develop his personality. A large number of children fall in the category of exceptional children. If we do not make provision for their education, their potentialities will remain undeveloped resulting in great wastage of human resources. Therefore, it is necessary to make separate arrangement for the education of exceptional children. Following are the specific needs for organizing special education.

1. Exceptional children do not benefit from regular class-room teaching. For example, we can take the case of gifted children. These children do not get proper motivation in regular classes.
They need differential treatment in learning. If they do not attend properly they may develop behaviour problems which may cause harm to the individual and to the society so it is imperative to make special arrangement for their education.
2. The second need of organizing special education is for mentally and physically handicapped who find it difficult to adjust in home and society. If these children are not properly educated to be independent they will become liability on society. They may develop adjustment problems which may ultimately lead to neurotic behaviour. Education, for exceptional children, should aim to develop confidence and competencies in handicapped children to earn their livelihood independently. They may become assets for the society if properly trained.
3. Special education will give insight into the problems of exceptional children to parents, educationists and administrators. It will help in the process of adjustment of exceptional children in the society. The attitude of the society will be changed towards these children.

4. Special education will solve the problems which exceptional children present in regular school programmes.
5. There are categories of children who cannot be educated with normal children. Deaf, Dumb and blind children require special schooling with different curriculum, methods of teaching and teaching for their education.
6. Exceptional child is quite different from normal child with regards to his/her interest, motivation and aims of life. To meet the needs of the child, society must provide special facilities for their education.
7. Special educational should meet both the needs in its efforts to bring exceptional children to the maximum of their developmental potential and to prepare them adequately for a satisfactory life adjustment. These exceptional children if left unattended become great liabilities to the nation. They should be provided with education to develop their potentialities.

In the following part of this chapter, we will discuss the education of the gifted and backward children and in the next chapter we will discuss creative and delinquent children.

11.4 The Physically Handicapped Children

"Any individual who is afflicted with a physical impairment that in any way limits or inhibits his participation in normal activities may be referred to as physically handicapped." This impairment can be of serious type or slight in nature. For example, eye defects may range from total blindness to imperfect vision in one or both eyes or susceptibility to eye strain or the person may be dumb or have a speech defect which shows only under unusual conditions.

11.4.1 Problems of Adjustment of the Physically Handicapped :

The handicap may be mild or serious. The handicapped individual faces many problems in his adequate adjustment on account of his physical deformity. The handicapped is unable to participate in desirable normal activities and hence requires satisfying substitute interests. Also his incapability develops in his emotional problems like resentment and discouragement. These require special attention in his adjustment. The handicapped develops a feeling that the others have a low opinion about him due to his defect and an undue exaggeration of this feeling in his mind results in development of an attitude of self pity in him.

Sometimes, this handicap happens as a results of unfavourable home or environmental conditions or of delayed or neglected treatment of pre-disposing condition. Such handicapped persons may attain proper adjustment if they are provided with improved envrimental conditions. The physically handicapped is not necessarily mentally deficient. In a majority of cases, he possess normal intelligence. Thus, his mental powers are to be exploited fully to compensate for his physical disability.

11.4.2 Education of the Physically Handicapped :

The physically handicapped persons are just normal except for their specific physical

defect. Hence such individuals should be provided with all those educational activities which are meant for normal children, keeping in view of course, their physical disability.

They should be provided proper vocational training. Except for those who have such serious disabilities that they are unable to work, all others should get some sort of training in a vocation which they can take up in spite of their defect. The vocational adjustment will develop in them self-respect and they will be able to carry on their own weight in life. For this proper vocational guidance into a suitable field, for which they are fit physically, should be given.

Education should also look to the social adjustment of the physically handicapped. He must be encouraged to take a realistic attitude of his defect and look with correct perspective on his inability to do a thing. He should be offered opportunities for experiencing successful achievement within his limitations so that his attention is diverted from an unhealthy brooding over his handicapped condition. He must be encouraged to recognize himself as a contributing member of his group.

11.4.3 Individual with special type of handicap and the role of Education :

(a) The Crippled : "The crippled individual suffers from a defect that is accompanied by one or another type of deformity that inhibits the normal exercise of his muscles, joints or bones. Crippling may be : (i) congenital, (ii) the result of an accident, or (iii) the effect of a disease. If no proper care is taken of the child's ailment or if it is neglected in the early stage then it may aggravate to quite an appreciable extent.

Intellectually, the crippled is usually normal and often superior. The crippled attracts attention of the other person and a remark or two from them coupled with his knowledge of his own inferiority which disables him to participate in physical activity develops in him undesirable attitude of resentment, futility, self-pity etc.

Thus, for proper adjustment of a crippled, the educational schemes should be correctly organised. Some of the steps which are to be taken for his education are mentioned below :

- (i) Education should provide opportunities for his mental development as he is not inferior to the normal person in intelligence.
- (ii) It must help him to develop desirable attitudes towards his own infirmity and towards his relations with other people.
- (iii) School equipment must be adjusted to his deformity. The chair, table etc., should be specially designed so that he can be comfortably seated and can indulge in reading and writing without much strain.
- (iv) The crippled may not be segregated in separate buildings or class-rooms. In segregation, he can get better physical adjustment but in aloofness, his social adjustment is likely to suffer. So if the school building is such that he can work in a separate room and also the opportunities to move with other pupils then he can be segregated, otherwise not.

- (v) The cripple should be given vocational training in keeping with his deformity. He may not become a firmman or a politician but he can take sedentary jobs with much success.

(b) The Blind and Near Blind : Usually, the persons with eye defects try to hide their handicap. The children who are near blind or possess defective eyesight do not want to show to others that they have particular defect. The teachers should be careful about such cases. They should recognize among these students the signs of any serious eye defect. Whenever they see such a behaviour as blinking while reading, holding the books at particular angles, displaying fits of temper, frequent rubbing of the eyes, and peculiar position of head and body, they should find out the extent to which the child is suffering from the eye defect and send him to the doctor for treatment.

Education can help in the adjustment of a blind or near blind in the following ways :

- (i) If the child is totally blind, he should be sent to the special school for the blind where he would learn through the Braille system. There he will also be given training for vocational adjustment. A blind may also be taught to sing or to learn some form of handicraft.
- (ii) Those who are partially sighted should be segregated to sight-conservation classes where large print text books and similar other devices are used to teach them.
- (iii) In ordinary schools more attention is to be directed towards the prevention of eye defects because it is often the environmental influence that weakens the eyesight.
- (iv) In the schools, adequate facilities for light and clearly and boldly printed books should be provided.
- (v) Black boards should be properly cleaned and placed at right distance in the classrooms.
- (vi) Hygienic reading habits in the individual need be developed.
- (c) The Deaf and Hard of Hearing :** The term Deaf "is normally applied only to person who has never had hearing, who lost his hearing before he achieved speech, or who lost his hearing soon after learning to speak that his power of speech also has been lost." We call that individual who loses his hearing after he has acquired speech as "hard of hearing."

The adjustment of a deaf and hard of hearing child can be achieved through education in the following manner :

(i) The schools should help the deaf to develop techniques of communication with normal people. Since this task is difficult to achieve in ordinary schools, special schools will be required for the deaf and dumb. It can be said with confidence that they can learn to quite an appreciable extent. In this connection, the case of Miss Helen Keller can be cited. She is both deaf and blind and still is one of the notable persons of modern times.

11.5 Education of Backward Child

All teachers face the problem of those children who lag behind from other children in their school work. They do not benefit from teaching in the class. The teacher can identify them by their facial feature, inattention, failure to respond simple questions in the class. These children are great liability for the society. The teachers, parents and social workers all are concerned with this typical group of children called backward.

According to Burt, a child whose IQ. is less than 85 is known as backward child. The definition is now universally accepted.

Backwardness may be in physical, emotional, social and intellectual development of an individual. As regards its causes, there is a constant struggle between the hereditarians and environmentalists claiming different causes of it. Generally, backward children are classified into two distinct categories. In one category backwardness is determined on the basis of IQ of the child and in the other category the backward child is treated in terms of his academic achievement in the school subjects. The first category is called mental retardation and the second category comes under educational retardation.

With the help of intelligence tests, we can understand the degree of backwardness. If we administer an intelligence test to a large portion.

11.5.1 Problems of Backward Child :

- (1) Backward child has the adjustment problems in regular classes. Generally, the assignments given to him either are too difficult or he has fallen too far behind his grade level to understand and perform the task required of him in regular classes.
- (2) He lacks motivation to learn, either because of his background or has been too deprived or his home induced emotional problems are too severe or his learning attempts have received no suitable encouragement or consistent reinforcement by the teacher.
- (3) He has become failure oriented because of repeated defects and thus no longer believes himself capable of learning. He fears failure and lacks ability and confidence to initiate new activities.
- (4) The material, he is assigned, has not been made meaningful to him, so he sees little purpose in learning it.
- (5) He is flooded with anxiety produced by the defenses he has created against self devaluation.
- (6) He is bitter and hostile towards school and society because of the humiliation he has suffered. The school environment provides him no motivation to work.

11.5.2 Identification of Backward Child :

- (1) **Teacher's observation :** Teacher is the best judge of identifying backward children

on the basis of his daily observation in the class and outside the class.

- (2) **Intelligence test** : Tests of intelligence may be used to screen backward children at the preliminary stage on the basis of their IQ. Individual and group test of intelligence may be used for identifying backward children.
- (3) **Achivement tests** : Achivement tests in various subjects should be used to know the level of achivement of backward children.
- (4) Personality inventory and case history may also be used.

11.5.3 Characteristics of a Backward Child :

On the basis of research studies conducted in recent years certain general characteristics of backward children have been generalized.

(i) **Physical characteristics** : Backward children when compared with normal children, have been found inferior in their physical development. They have poor muscular co-ordination, slower reaction time, more physical defects of eyes, nose and serious speech defects.

(2) **Mental characteristics** : The chief deficiency in backward children is in the area of intelligence. They have lesser capacity of abstract thinking and to correlate various experiences they lack in reasoning ability. They lack the ability to think in abstract way.

(3) **Social and moral characteristics** : The social development of backward children lags behind the normal children of their age group, this is because of two reasons, first the perception of social situation is a matter of understanding and in the second place a child's backwardness has been apparent in the family and in the neighbourhood long before he enters the school. He is rejected by his classmates. Parents are ashamed of such children. They make sharp remarks and make unfavourable comparisons. These children develop undesirable social traits. They make good adjustment in non-academic pursuits as a compensatory defense mechanism. They are good followers and highly appreciate what is done for them. The stick to their friends and develop successful adjustment. The incident of cheating is higher in them.

11.5.4 Administrative provisions for the Education of Backward Children :

There are three possible alternative arrangements for the education of backward children.

1. In a regular class with other children.
2. In a separate class within the same school.
3. In separate schools.

(1) **Backward Child in regular class** : It has been observed that backward children in regular class with other children, soon fall behind and may develop habits which make them unpopular and centre of attention. In past years, it was the tradition in schools to hold them back until they were intellectually able to pass the work of that grade. This means that there was a piling up of dull children in the same grade. Unable to satisfy their fundamental motives

of mastery, approval and security and frequently rejected by their classmates, they become frustrated and hostile, thus creating problems within the class.

Under modern school conditions where the consideration is given to individual differences and social development is the major consideration for promotion much less frustration is the rule.

However, it has been feared that even under the best conditions, no teacher has this much of time to furnish the numerous illustrations to permit the endless repetitions necessary for the adequate learning of the backward children. Thus it is concluded that sufficient individual attention cannot be provided to backward children in regular class arrangements. Some educationists advocate for separating backward children in special classes where they can be gradually trained to cope with normal situation.

(2) The special class : To remove some of the defects of regular class-room teaching of backward children, the special class arrangement has been developed. In such a class children from 60 to 75 IQ are placed. The teachers for these children have special qualifications in teaching. There are many advantages of the arrangement.

- (i) In this arrangement, backward children are neither subjected to severe competition of the regular class nor rejected by their age mates.
- (ii) The teacher understands their needs and problems. Here they receive proper attention. They are properly recognized and approved by their classmates because they are similarly handicapped. Do not hold each other up to contempt or ridicule.
- (iii) There is availability of time for concrete illustrations and activities needed for the slow development of concepts.
- (iv) In such classes, only 15 to 20 children are kept so proper individual attention is given. In such classes, children are happy and their learning is more effective.

Some objections may be raised by parents of backward children to place their children in such classes. Unfortunately other children of the school call these classes. "classes for dumb bells" and other discouraging names may develop inferiority complexes in these children.

(3) The special schools : Special schools may be established for mentally handicapped children with special arrangement of equipment and specially trained teachers for backward children. There are some objectives against this arrangement.

- (i) Parents do not like the isolation of their children from normal children.
- (ii) Such schools are very expensive to run and equipment is costly.
- (iii) No motivation and competition are provided.

11.5.5 Psychological Factors in Teaching Backward Children :

In regular class, the teacher can use the following principles.

Young teachers should not overjudge the amount of knowledge or the level of skill

possessed by the backward. The teacher material should be adopted to the levels of interests and capacities of backward children. The fixation of desirable habits takes longer time, requires more repetitions by the child. In most cases, only the simplest generalizations are possible.

One of the more important aspects of remedial treatment is the deliberate attempt to extend child's environment. It should be extended by environment of experiences in the class and outside the class. Such educational measures, generally, facilitates the children's ability to come to grips with the world in a more effective way.

Generally, most of the backward children suffer from emotional problems. No doubt these children need new experiences and a richer environment to stimulate them intellectually but they may need stability and a protected environment for their emotional difficulties.

Backward children lack experience of content reinforcement in their home and social environment and they tend to abstain from any new activity which, so far as they know, will be punished. The teacher should remove the constant fear of failure in school activities. Motivation is gained when the children understand and accept the purpose of the activity, when it is filled to their level of the development with consequent opportunities of success and approval. Backward children adapt to be more interested and more able to work with concrete perceptual experiences. Prof. Wallin says "Children who are seriously retarded are thin minded, eye minded, and ear minded rather than thought minded. It has been shown that backward children are successful with manual arts, especially, if they offer opportunities for manipulation. Teacher should plan such activities for backward children, which give motivation to backward children. It is sometimes argued that such children should be taught using visual and concrete material and abstraction should be kept to the minimum. Thus use of visual and concrete material in the teaching of backward should be viewed as a means and not as an end. These children understand and embrace that goal, they work with material, they can manage, they learn things in relation, they repeat many times what they have learned, and they work as a group in forwarding the project. In practical terms this means that backward child will need more practice in problem solving activity.

The learning of generalization, abstractions, and concept are difficult for backward children. The backward child needs more concrete illustration, especially, those he himself can manipulate and more help in locating the attributes in each experience.

The teacher should try to improve the social competence of backward children. They should be helped to get on well with others and to become successful members of the community in which they live.

11.5.6 Application of Learning Theory to the Problems of Backward Child :

The teacher may use the following recognized principles of learning, life dealing with learning problems of backward children.

- (1) Backward child must be taught in simplest terms that he can master at his own pace. To put over load can only result in selective retention and frustration.
- (2) He must receive immediate reinforcement for any success. This is necessary to

ensure repetition of his successful behaviour.

- (3) He must receive a variety of stimulation, since all children do not learn in the same fashion or by same means.
- (4) The material should be made meaningful to him to insure retention.
- (5) He should be provided with immediate knowledge of the result of his work. If not, he has no feedback to guide further activity.
- (6) He must be provided with immediate knowledge of the result of his work. If not, he has no feedback to guide further activity.
- (6) He must be given the opportunity to practice his knowledge and skill through distributed repetition and a variety of appropriate tasks.
- (7) His primary instruction at every level must be initiated through careful training, and then painstakingly shaped by increasingly accurate corrections which are reinforced.

11.5.7 Cause of Backwardness

There are many causes of backwardness. Each child who is backward has his own personal reasons for backwardness. We cannot generalize the causes of backwardness. Backwardness is an individualistic problem and we can determine its causes from the individualistic point of view only. However, we can cite a few important causes of backwardness which are more common than others.

1. Lack of Native Intelligence : Lack of general intelligence is the main cause of backwardness. Burt, during his investigation, could locate that out of every five backward children, three were of low I.Q. (less than 70). He also found that more than 95 per cent of backward children were below average in their native intelligence. Those who were of low intelligence suffered from congenital defects. Burt said that we cannot cure such backward children. With such children, the only thing which we can do is to arrange the school activities for them in such a manner that they come within the range and scope of their ability.

On the basis of the above discussion, it can be said that to find out the reasons for backwardness, intelligence test should invariably be given. Through them, it can be found whether (i) the backwardness is on account of low intelligence, or (ii) it is on account of some defects in the upbringing or the education of the child. The second type of the causes of backwardness can be removed and backwardness can be remedied.

2. Effect of Environment : Among the causes of backwardness the evil effect of environment is highly important. If the child lives in a bad environment, his physical and mental health is adversely affected. Burt found that 12 per cent of the backward children were backward on account of the bad environment of their homes and eight per cent backward children were backward on account of bad school environment. If the parents of a child are poor then they are not in a position to purchase adequate, reading materials for their child. The result is that the child becomes backward in his studies. Moreover, such children have also to

perform many domestic duties and hence they are not able to devote much time to their studies.

If the parents do not love their children then also they become backward. They begin to suffer from emotional tensions and form complexes. Besides this, if a child gets excessive love from his parents or is an only child, he usually begins to suffer from many emotional problems and is unable to concentrate on his studies.

If there is a harsh teacher in the school or the companions of the child take him towards evil ways then also the child becomes backward child. If the child is always scoffed at or if he does not get any chance for self-expression then also he turns out to be a backward child.

It must be remembered here that unhealthy environment may itself be a cause of backwardness or it may be accompanied by low intelligence.

3. Temperamental Defect : Temperamental defect may also be a reason for backwardness, According to Burt, in 9 percent children this was the main cause of backwardness. In 60 percent children, backwardness was due to low intelligence. Thus in 70 percent children, the causes of backwardness were psychological.

4. Physical Defects : Backwardness is often also due to physical defects. If the child is hard of hearing or his eye-sight is defective or he is a stammerer then also he will be a backward child. In 9 percent children, Burt found physical defects as the main cause of backwardness.

5. Truancy : There are many children who are not of low intelligence but are backward. The main reasons for their backwardness may be found in their inattentiveness to class work. Often such children run away from their classes and miss some very essential part of the topic which is being taught in the class-room. It has been found that in 10 percent children, the absence from school on account of sickness or truancy was the main reason of their backwardness. The child fails to understand the subject-matter which is taught during his absence with the result that he becomes backward in that subject. A child who is absent when fractions in arithmetic are taught in the class will always try to avoid the questions on fractions and thus he will become backward in mathematics.

11.5.8 Specific Types of Backwardness :

The cause for specific types of backwardness is the lack of specific ability in that particular subject in which there is backwardness. We can make it clear with the help of an example from reading. Backwardness in reading may be on account of lack of the ability of visual perception or auditory perception or it may be due to auditory or visual rote memory. To find out which of the inability is main, have to get the child examined by a specialist.

11.5.9 Remedies for Backwardness :

Backwardness is of two types : (i) General, and (ii) Specific. We shall be pointing out the remedies of backwardness on the basis of its type.

(i) General Backwardness and its Remedies :

General backwardness means backwardness in all the subjects. The child remains backward in comparison to an average child in all the subjects, He may be better in one or two subjects than the others but he will always remain at lower level in comparison to those children who are at the average level of the class.

To remove general backwardness, the following remedies may be applied :

1. To diagnose and try to cure the physical defects : The teacher should get the backward child medically examined so that in case he is suffering from any physical defect that may be properly diagnosed and proper remedies are applied for that. The education to the physically defective should be provided keeping in view his physical disability.
2. To find out the intelligence level of the child through intelligence tests and to apply suitable remedial measures for it. If the child is of low intelligence then it is very difficult to cure him. The mentally retarded children will always remain backward in studies than the average children. In the previous chapter, we have discussed about the education of such children.
3. The backwardness which is due to bad environmental factors is to be removed by making the environment healthy for the child. Backwardness which is due to bad environment can be remedied through the proper organization of the education of backward children. For this, the following measures should be adopted :

Backward children should be taught according to their interests. It is not necessary that they are to be kept busy in dull, monotonous and mechanical activities rather they are to be given those tasks to perform in which they feel interested. For them, project method is a good method of teaching. Their education should have the practical bias. They should be taught. Their education should have the practical bias. They should be taught with the adequate help of the visual aids and more of experimental work should be assigned to them. Through dramatics they should be made to understand the various characters involved in the drama. Their parents should be made to realize that they should not be asked to perform too heavy domestic duties. The teacher should also try to stop their running away from the classes.

(ii) Specific Backwardness and its Remedies :

When the child remains backward in only a few subjects and in the other subjects his progress is satisfactory, we call such backwardness as specific backwardness. The reason for this backwardness can be found in his interest or aptitude. Sometimes, backwardness in any one particular subject is on account of the faulty methods of study or because of harsh and unpsychological treatment of the teacher. Often in our schools we find a number of students backward in mathematics. The reason for this is that many mathematics teachers give a long list of questions as home work to the students and in case they fail to complete the home task, they are badly beaten, Also, many mathematics teacher do not take pains to explain the difficult portion of the various questions to the students and because of the fear of punishment, they want to get the questions solved by their students.

To remove specific backwardness, the following methods may be adopted :

1. physical defects should be given proper treatment and education should be given to the child keeping in view his physical disability.
2. Good methods of teaching should be employed for teaching the class.
3. The interests of the children towards those subjects in which they are backward should be awakened. For arousing interest, full use of the audio-visual aids must be made.
4. Individual attention should be paid to the child and his specific difficulties should be removed.
5. The teacher should make clear any portion of the text which the child has not followed. Teachers often try to skip over the portions which the child has not followed. This is very detrimental to the interests of the child and the teacher should never adopt this practice.

In the end, it can be said, we may say that teachers should adopt mainly these two methods to remedy backwardness among the children (i) if the child is backward because of his low intelligence then he must be put in special classes where he should be taught at slower speed than an average child and the curriculum for him should be made more practical and correct; and (ii) if the child is backward in any one particular subject from the elementary knowledge of that subject.

(ii) The child who is hard of hearing may not be segregated to a special school but he should be allowed to study in regular class room. He should however, be allowed to sit in the front row so that he may watch the teacher's lips and should be permitted to turn in the direction of any pupil who is reciting. He could be encouraged to study lip reading in a special reading class conducted by the school or any other agency.

(iii) The deaf or near deaf can make desirable adjustments. They can take up the research or actuarial work or teaching job if they are good in other traits.

(d) Speech defects : Speech defects can be lipping, stuttering, stammering, nasality, baby talk, thick speech and hoarseness. The cause of speech defect may be physiological, but there are many speech defects which are more or less psychological in nature. Among the psychological reasons are carelessly developed speech habits, the imitation of faulty speech, lack of proper rest, emotional disturbances etc. Too rapid or hesitant speech, stuttering and stammering are many times mainly the results of emotional disturbance. When a patient is unable to utter sounds or to speak normally, his emotional stress is intensified and his speech difficulty increases. To eliminate psychological speech defects entirely, or to reduce them greatly, the child should be stimulated by correct and well articulated speech, spared baby talk and should be provided with emotion reducing childhood environments.

Thus, speech defects can be reduced or improved in the following ways :

- (i) By the improvement or elimination through exercise or surgical operation of any physical malformations.

- (ii) By the imitation of good speech by the individual.
- (iii) By making the home conditions and school life tension reducing.
- (iv) By proper nourishment.
- (v) By special speech training.

The schools should help the child having defect by : (i) motivating him to recognize his difficulty, (ii) not over emphasizing the handicap, (iii) Careful and accurate diagnosis, (iv) giving him exercises which are in keeping with his defect (v) elimination of worry, (vi) not embarrassing the child in the presence of his class mates, and (vii) the teacher's correct and pleasing speech given with calmness and away from speech mannerism and with good articulation.

(e) The Delicate Person : Those persons can be called delicate persons who do not suffer from any specific disease but whose health condition is such that they need to exercise care of their health. Such people who are anaemic, low in vitality or tubercular are included in this category.

The delicate person cannot participate in ordinary work and play activities of his age or sex. He becomes unduly tired if over-exercised and may fall seriously ill. Such individuals are often the result of malnutrition though they may suffer from some sort of infection as well. If from early childhood, care of the child's health is taken in their homes and schools, they will not become delicate in their physique.

In the schools periodic health examinations, treatment of psychological deficiencies and regulated activity are necessary. In India, the general standard of health is poor on account of the lower economic conditions of the people. The schools can do much if they can make arrangements free of cost for mid-day meals and milk. The delicate children may be kept in regular class but for them, frequent check-ups are necessary.

11.6 Mentally Deficient or Dull Children

An individual whose mental quotient is below 70 is normally thrown as mentally retarded. However, we also include the slow learners (I. Q. between 70 and 85) in this group. Thus at present among retarded children we are considering all those children whose I.Q. is from 0 to 85.

Most of the parents do not believe that their child is mentally deviate. They have a notion that if the child is not doing well in his studies, he does not work as hard as he should do. They resent if any one points out to them that their child is mentally deficient and however hard he may try he will be unable to achieve as much knowledge as a normal child can. The first task of the teacher then is to educate the parents about the mental calibre of their children. The tests of mental ability of the children should be performed and the parents must be made conversant with them. They should then be stimulated to do for their child whatever is best for them. The parents will do immense disservice to their child if they will press the retarded child to learn beyond his capacities. The child will develop many emotional problems and his adjustment will

become difficult.

A high grade moron may not seem to be too different from the dull normal child, especially during his early years. The only difference which may be visible will be pertaining to the rate of the slow development of speech, walking and other habit patterns. But in the case of an idiot or imbecile, the mental retardation can usually be discovered early. The parents of an idiot or imbecile are able to discover quite early in the life of the child his mental deficiencies. It will do good to the child if they recognize his disability early and take the situation realistically.

In a common word a dull or deficient child is said to be retarded. It means they are deficient in their mental capacity from average children. There are other similar condition for retardation—mental deficiency retardation, feeble minded, dull or mental subnormality, etc. Such children also lacking adaptive behaviour.

The AAMD (American Association on Mental Deficiency) in 1937 defined retardation in the following words—

"Mental retardation refers to significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during development period."

This was supported by PAA (American Psychiatric Association) and it was included in DSM -III R, 1987)

Following are the important points of this definition.

1. Intellectual capacity is below average.
2. Lacking adjustment capacity
3. It originates during developmental period.

A retarded child bears following characteristics :

1. There is physical irregularity-dwarf, buckled hands and feet.
2. Lack of intellectual ability and the I.Q. is below 70
3. Lack of social adjustment
4. Emotional development is not proper
5. They are unable to distinguish between proper and improper.
6. They are very suggestible
7. They lack self dependence
8. There is low language development
9. Inability to take profit from past experience
10. They have limited interest
11. They have limited memory capacity.

11.6.1 Kinds of Mental Retardation :

The AAMD and the APA has given following classification of retardation :

(a) Mild Mental Retardation :

Their IQ is between 52-67 and the mental age is between 8 - 11. Special education can made them self dependent and adjustable in the society.

(b) Moderate Mental Retardation ;

Their IQ is between 36-51 and mental age is between 4-7. They can be trainable with special facilities.

(c) Profound Mental Retardation :

Their IQ is below 20 and they are dependent on their relatives for the whole life.

(d) Severe Mental Retardation :

Their IQ is between 20-35 and the mental age is 0-4 years. They have many sensory and motor defects and they are fully dependent on their family and relatives.

11.6.2 Adjustment and Education of Retarded Child :

The adjustment problems of the mentally retarded are different from the gifted or normal. The mentally retarded should be treated with sympathy and patience and with painstaking efforts.

As regards an idiot, it will be noticed that he rarely gets into the school while an imbecile may or may not enter in it. If the mentally defective child is admitted in the school, he will show a very poor performance and will either have to discontinue his studies or may remain confined in the lower grades for an undue length of time. Similar will be the case with a dull normal individual. Usually, he will remain in one class for many years. He will not be able to compete with his brighter class-mates yet everyone will expect from him a performance equal to that of a normal child. This attitude of others, towards him will make him frustrated and anxiety ridden.

Thus, it is necessary that the mentally retarded children are given proper treatment in the schools. They should be taught simple vocabulary. The reading material for them must be written around their life interests and the general teaching and learning pace must be slowed down.

The mentally retarded should also be given vocational training so that they may develop attitudes of successful achievement. They may be given industrial training which may help them to achieve a fairly satisfactory adult pattern of life.

Education and adjustment of a retarded child is very difficult. Some of them whose I.Q. is above 36 can be trainable for their livelihood. The other types can not be educated and adjusted to their situation effectively. Some efforts have been made to educate them by government and non-government organizations keeping the view of following points—

1. Suitable curriculum
2. Simple teaching methods
3. Arrangement classes
4. Behavioural changes.

11.7 Meaning and Definition of Gifted Children

Giftedness has been defined from different angles. Some psychologists emphasize the importance of superior endowment, others on exceptional performance of the individual in different walks of life. We can broadly classify all the definitions into three classes on the basis of I. Q. , social potentiality and in statistical terms. Now let us examine, in brief, all the three types of definitions.

(1) Intelligence quotient (I.Q) : (a) The giftedness is usually defined in terms of IQ. Different psychologists set different range of IQ for gifted children as L. M. Termn, in his famous study of gifted children set an IQ 140 as the lower limit of giftedness.

(b) Other authorities in psychology set the lower limit of IQ from 110 to 140 and upwards.

(2) Social potentiality : The second category notions of giftedness is in relation to social potentiality of the child. According to Witty, "gifted children are those whose performance is consistently remarkable in music, art, social leadership and other forms of expression."

According to Tyler, R. W. the gifted child is he who is exceptional in the amount of his production, rate and quality of his production.

(3) Statistical : The third type of definitions are related to the concept of percentage. Some educators say that gifted children are those who fall in the top 2 Percent to 4 percent of intelligence. L. S. Magnifice, categorised gifted children into two classes : (a) A child whose ability as indicated by an intelligence test is within the range of the upper 2 percent to 3 percent of the population. (b) A child having outstanding ability in a specific areas of knowledge as art and science.

An individual whose I. Q. is above 130, is usually known as the gifted individual. It is expected that not over 2 percent of the school population will be exceptional to this degree. Among these 2 percent, there will be a few whose quotients will run as high as 181 or 190. The children who come in the category of gifted are also likely to present problems to the school management and organization.

The gifted children are much more able than the average children. They can thus perform those activities which are given to them earlier than the normal children. In a classroom where they are huddled together with the average or even lower than the average children they find the task of the class uninteresting and unstimulating. They become unconcerned with the school work and more often begin to indulge in undesirable activities. They develop habits of idleness, restlessness and even of mischievousness. The solution which is often suggested for proper adjustment of such children is that they should be given rapid promotions.

They are allowed to move rapidly through the lower grades. But in such cases, they find themselves with much older and larger pupils than themselves. Although equal to those older pupils in understanding and intelligence, they cannot participate with them in the athletic and

other physical activities on equal terms. They are unable to achieve the leadership and influence to which their ability would entitle them among children of their own age. Thus, their social adjustment suffers. The elder pupils make fun of them as they are physically small. It is on account of these factors that the education of gifted children presents serious problems to educators.

11.7.1 Identification of Gifted Children :

Many studies have been conducted to identify the gifted from the non-gifted. In these studies it was observed that a large number of gifted children come from families of unusual ability and attainment. The presence of such children did not recognize them as possessing superior ability but were considering them as average and by average they meant like the rest of the family. However, this average of theirs was much higher than the average of the population. These children were found to come largely from parents engaged in professional fields, or in the management of their own business or in the executive capacity in trade and business. A very few cases were found whose parents were in the occupations of the 'skilled trades', occupational groups rating lower than this practically provided none of the bright children. Gifted boys and girls were found in equal numbers.

The teachers' judgement for the discovery of such pupils was found to be not very useful. They tried to pick up the ablest pupils in the class irrespective of the fact that they might be older than his fellows. Similarly, results of examinations proved to be not too helpful. The teachers do subjective ratings in them and thus the really gifted have many chances of being neglected.

"Objective tests of intelligence, of learning, and of school, information and skill were needed to identify the bright, and the search for such pupils did much to stimulate the formulation of instruments of mental measurements." The tests are now available and the gifted can now be recognized to a fair degree of certainty.

11.7.2 Some notable Characteristics of Gifted Children :

The following have been noted to be the outstanding characteristics of the gifted children by Terman and Hollingworth.

- (i) The heredity of the gifted was superior, They came from families of higher social and economic status.
- (ii) In physical features etc., the gifted were found to be superior than were control groups of similar age, sex and race. They were larger at birth, they were well behaved at an early age; their general health was superior; the changes of puberty came earlier.
- (iii) Most of them were found to be educationally advanced beyond grade status for their ages. They had genuine interest in learning and knowledge. Various subjects special talents, as in music, drawing, art were frequently found.
- (iv) They were more interested in abstract than in manual activities and in difficult subjects than in easy subjects.

- (v) In play their interests tended to be non-competitive, they preferred games involving thinking and playmates older than themselves. They read widely with more inclination towards what was called 'adult' subject-matter.
- (vi) In tests and ratings for various character and personality traits these able children were definitely superior to the control group. They were most superior in traits called 'intellectual' than in order of decreasing superiority, the classifications came in the following order—vocational, emotional, moral, physical and social.

A number of researches have been conducted in recent years on the characteristics of gifted children. These studies invariably indicate the gifted children when they are compared to average children show the following characteristics :

(i) Receive higher grades, (ii) Have more positive attitudes, (iii) More reading ability, (iv) Participate in more curricular activities, (v) More concerned with abstract ideas, (vi) They are more successful in sports. (vii) Well adjusted, (viii) Better relation with peers, (ix) More confident, (x) Greater ego-strength, (xi) Greater individual independence, (xii) More mature in their reaction to external world.

Witty P, in his book, Gifted Children, Our Greatest Resources (1955), has summarized the following areas in which the accelerated development of gifted children may be identified by parents or family friends before the child enters into the school.

- (1) Good vocabulary
- (2) Language proficiency, the use of entire sentences and ability to produce a story at an early stage.
- (3) Keen observation.
- (4) Interest in and liking for books.
- (5) Early interest in calendars, in telling terms and in clocks.
- (6) Ability to concentrate or to attempt for a longer period than is usual for children.
- (7) Demonstration of proficiency in drawing, music or other art forms.
- (8) Interest in exploration and discovery of cause effect-relationship.
- (9) The early development of ability to read.

James M. Dunlop has stated positive and negative characteristics of gifted children.

A. Positive characteristics of gifted children :

- 1. Learn rapidly and easily
- 2. Retain what they learn without much drill.
- 3. Show curiosity in questioning.
- 4. Rich vocabulary marked by originality
- 5. Enjoy reading
- 6. Show interest in words and ideas
- 7. Reason things out

8. Greater ability to generalize
9. Know and appreciate things of which normal children are unaware.
10. Interested in the nature of man and universe at early stage.

Education of the Gifted :

- (i) For making the gifted child adjust to typical school situations, provision must be made for him to advance at his superior rate of learning speed. Special classes for the gifted should be arranged on both the elementary and the secondary level.
- (ii) Though special classes are necessary it is also required that the gifted young person has opportunities to mingle with young people less able than himself. As an adult, he will need to adjust to such persons. Hence, he needs training in this form of adjustment during his school years.
- (iii) They should participate in the out-class activities regardless of their mental status. It can be expected that the gifted will be the leaders in such activities. The teacher should, however not appoint him as leader, because then it will be resented by the other pupils.
- (iv) The teacher should help the gifted to have emotional balance. For this, he should seek co-operation of the parents of the gifted.
- (v) In teaching the gifted, drill should be reduced to the minimum or even eliminated.
- (vi) For the gifted, there is no need for artificial motivation if the subject-matter be really suited to their intelligence and interests. Their interests are quite broad and their intellectual curiosity is always keen.
- (vii) Usually, the project methods are very useful with the bright. They should be encouraged to take up project and plan, execute and work on them.
- (viii) To teach the gifted particularly, able teachers are required who are themselves of high intelligence, well-informed, acquainted with the psychology of the bright and free from prejudice, jealousy and superstitions.

In the end, we can cite the view of Hollingworth L.S. about the education of such children. She says, "To take their unique place in civilized societies, it would seem, therefore, that the intellectually gifted need specially to know the evolution of culture as it has been, And since at eight or nine years of age, they are not yet ready for specialization, what they need to know, is the evolution of culture as it has affected common things," "Among the common things are included food, shelter, transportation, and the like, Through these media, thinking can be stimulated and intellectual curiosity can be satisfied."

11.7.4 Administrative Provision for the Education of Gifted Children :

Administrative provision for the education of gifted children is subject to an almost endless amount of uncontrolled experimentation with acceleration, ability grouping, special classes, partial special classes, advanced placement and special guidance classes. The

choice of provision, among these alternatives is often based on highly emotional and unsubstantiated opinion.

11.8 Summary

Exceptional children are those children who are either physically or mentally deviated from the normal to an appreciable extent. We may classify such children in the following categories; (i) the physically handicapped, (ii) the mentally retarded and (iii) the gifted.

The physically handicapped may be further classified into (a) the crippled, (b) the blind and near blind, (c) the deaf and a hard of hearing, (d) the defective in speech, and (e) the delicate.

The physically handicapped persons are just normal except for their physical defect. Hence, such individuals should be provided with all those educational activities which are meant for normal children keeping in mind, of course, their physical disability. The crippled individual suffers from a defect that is accompanied by one or another type of deformity that inhibits the normal exercise of muscles, joints or bones. Intellectually, the crippled, is usually normal and often superior. Thus he should be provided opportunities for his mental development and should be given vocational training keeping with his deformities. If the child is totally blind, he should be sent to the special school for the blind where he would learn through the Braille system but if he is partially sighted there is not need to transfer him to special school. The deaf should be transferred to the special school but one who is hard of hearing should be allowed to study in regular class - room. He should, however, be allowed to sit in the front row so that he may watch the teacher's lips. The cause of speech defect may be physiological or psychological in nature. To eliminate the psychological speech defects entirely or to reduce them greatly, the child should be stimulated by correct and well-articulated speech, spared baby talk and should be provided with emotional reducing childhood environment, should be provided with emotion reducing childhood environment. The delicate children may be kept in regular classes but for them frequent medical check-ups are necessary.

An individual whose mental quotient is below 70 is normally spoken of as mentally retarded. It is very necessary that proper educational facilities are provided to the mentally retarded otherwise their adjustment in life becomes difficult. Those children whose I.Q. is below 55. should be placed in special school under the care of special teachers.

An individual whose I.Q. is above 120, is usually known as gifted individual. The gifted individuals are much more able than the average children. It is, therefore, very necessary that they are provided with desirable opportunities for their progress. The gifted can be identified with the help of the objective tests. In teaching the gifted, care is to be taken that with their mental development, their social development also takes place so that they are able to achieve proper adjustment in their life.

11.9 Key Words Used

Exceptional,
neglected,
attitude,
physically,
treatment,
modification,
motivaton,
participate,
compensate,
adequate,
techniques,
ordinary,
retardation,
inventory,
complexes,
expression,
observation,
organization,
vocational,

Stimulating,
attention,
extraordinary,
intellectually,
maximum,
potentialities,
adjustment,
incapability,
vocational,
hygienic,
partically,
adequate,
motivation,
reinforcement,
remedies,
potential,
harmonious,
rapidly,
identified,

research,
independence,
achievement,
emotionally,
supplementary,
resources,
competencies,
majority,
disability,
appreciable,
conservation,
humiliation,
observation,
intelligence,
situation,
thinking,
gifted,
inclination,
Quotient.

11.10 Questions for Exercise

11.10.1 Short answer type questions :

1. What do you mean by Special Children ?

Ans. See 11.2

2. What is the importance of special education ?

Ans. See 11.3

3. Explain the characteristics of backward child.

Ans See 11.5.3

4. What are the problems of backward child ?

Ans. See 11.5.1

5. What do you mean by mental retardation ?

Ans. See 11.6

6. How does a backward child identified ?

Ans. See 11.5.2

7. What do you mean by gifted child ?

Ans. See 11.7

8. Explain the characteristics of gifted child.

Ans. See 11.7.2

9. How does gifted child identified ?

Ans. See 11.7.1

11.10.2 Long answer type questions :

1. What do you mean by Special Children ? What are needs of special education to them ?

Ans. See 11.1.2 and 11.3

2. What do you mean by physically handicapped ?

Ans. See 11.4

3. What do you mean by backward child ? How are they identified ? Explain their characteristics and problems.

Ans. See 11.5, 11.5.1, 11.5.2 and 11.5.3

4. Explain the causes and remedies of backwardness.

Ans. See 11.5.7, 11.5.8 and 11.5.9

5. Explain the meaning, types, adjustment and education of mentally retarded children.

Ans. See 11.6, 11.6.1 and 11.6.2

6. What do you mean by Gifted child ? What are their characteristics ? How can such children be educated ?

Ans. See 11.7.1, 11.7.2 and 11.7.3

11.11 Suggested Readings

- | | | | |
|----|-----------------------------|---|---------------------------------|
| 1. | Chauhan, S.S. | : | Advanced Educational Psychology |
| 2. | Mathur, S. S. | : | Educational Psychology |
| 3. | Sulaiman, Md. & Sinha , R.K | : | Adhunik Siksha Manovigyan |

Guidance & Counselling

Lesson Structure

- 12.0 Objective
- 12.1 Meaning of Guidance and Counselling
- 12.2 Personal Guidance
- 12.3 Educational Guidance
 - 12.3.1 Guidance in the School
 - 12.3.2 Curriculum and Guidance
 - 12.3.3 Organization of Consultation Services in School
 - 12.3.4 Collection of Pupil Data
 - 12.3.5 Sources of Pupil Data
 - 12.3.6 Educational Guidance
- 12.4 Vocational Guidance
- 12.5 Techniques of Guidance
 - 12.5.1 Working with Groups
 - 12.5.2 Working with Individuals
- 12.6 Summary
- 12.7 Key Words Used
- 12.8 Questions for Exercise
 - 12.8.1 Short Answer Type Questions
 - 12.8.2 Long Answer Type Questions
- 12.9 Suggested Readings

12.0 Objective of the Lesson

There are several objectives of the present lesson. One major objective is to make the learners acquainted with the concept and nature of guidance and counselling. Another important objective of the lesson is to explain the different types of counselling in detail. Personal guidance, educational guidance and vocational guidance will be discussed in detail. Besides, techniques of guidance will also be discussed. In the end a summary of the lesson the key words used in the lesson, probable questions for exercise and suggested readings will also be given for the convenience of the learner.

12.1 Meaning of Guidance and Counselling

Guidance is that individual help which is given to a person to enable him to solve his problems of life in different fields. Through guidance, the problems of the individuals are not generally directly solved, but the individual gets help for solving them. Guidance can be defined as, "the process of assisting the individual to choose, prepare for, enter upon and progress in course of action pertaining to the educational, vocational, recreational and community service group of human activity."

In guidance, two persons are explicitly involved-one who gives guidance, and the other to whom guidance is given. Two types of informations are also needed - one about the child to whom guidance is to be given, and the other about those social, educational and vocational activities for which guidance may be given to the child.

Guidance is a continuous process. In this, many persons and agencies are involved. Guidance should be given to each and every child and not to those only who have some special problems. In providing guidance there is need for co-operation among the different agencies like family, school, or social service agencies or the institutions sponsored by the State.

Guidance is an active and dynamic process. It helps the individual in understanding his self and in putting for good use the powers of the self. Through guidance, the individual gets knowledge about his intelligence, general ability, specific ability, aptitude and characteristics of personality and his social and economic condition etc. An individual who gets good guidance makes his life happy and is prepared for social service.

In short we can say that :

1. Guidance is a helping process.
2. It helps to understand a person about his merits and limitations.
3. It helps him to understand the reality.

4. Guidance draws an outline of future life.
5. Guidance helps to adjust a person to himself and to the society.

Jones (1975) defined guidance in the following words –

"Guidance is the personal help that is given by one person to another in developing life goals, in making adjustments and in solving problems that confront him in the attainment of his life"—(Jones-Principles of Educational Psychology).

Salient features of this definition—

1. Guidance is a helping process to person.
2. It happens between two persons in which one person is guide and other is receiving person.
3. Guidance helps a person in personal and social adjustment.
4. Guidance also helps a person to understand his life goal intelligently.
5. Guidance helps in understanding and solving a problem.

Thus, it becomes clear that guidance is a process in which one person is giving important informations to other for attainment of his goal and adjustment in different life situations. Some times guidance is confused with counselling because both the process are similar in the sense that one person is suggesting to another person, yet there is one important distinction between guidance and counselling apart from the similarity.

Counselling is aimed at removing some habit or symptom. The purpose of counselling is theraputic but suggestions and informations given by guidance helps a person to understand (define) his goal and make a better justment to different spheres of life. Guidance Service can be of different kinds and the counselling is one of them. Hence, Guidance is a broadn concept and the counselling comes unders that. Guidance is generally classified under three broad categories— Personal, educational and vocational though, there is no water tight compartment.

12.2 Personal Guidance

In personal guidance personal and Social problems are dealt with for example – problems related to health emotional adjustment, social adjustment Problems and character buildings etc.

12.3 Educational Guidance

Educational guidance is related to the students problems relating to selection of curriculum and study habits etc. gthelps in educational task, solving educational problems etc. Reber (1985) defined educational guidance in the following words –

"Educational guidance is one where the focus is on providing assistace and advice in

social work institutions, testing and counselling" —(Psychology).

This sort of guidance is given to those students who have to choose some subjects for their study in the schools or colleges. Thus educational guidance is the help which is given to the students to choose the subjects and many other educational activities and also to attain an adjustment with them.

Here also we come across with two main types of differences : individualistic differences and the differences pertaining to the curriculum and other activities. A child when he comes to the school in very beginning, knows nothing about the various courses of study but slowly he adjusts himself. Later on when he is to choose subjects for college study or for higher classes in the school itself then he fails to take a correct decision. Here guidance can do immense good to him. He can be helped to choose those subjects in which he is interested and which can be helpful to him in choosing future vocation.

In providing educational guidance, the counsellor should have complete knowledge about the child's interest, ability, attitude etc. Besides this, he must also have the information regarding the educational curriculum and activities. He should know what subjects are taught in different institutions and where the child can get education in keeping with his interests.

12.3.1 Guidance in the Schools :

These days much emphasis is laid on giving guidance in the schools. Giving the child educational and vocational guidance is considered an important function of the school.

Class teaching cannot be similar to as the guidance. Guidance is given at that time when help is being given to the child to understand his experience and to prepare plans for his future life. This shows that guidance can be given by the teachers and they should first of all carry the burden of it.

12.3.2 Curriculum and Guidance :

The present educational system thrives on a variety of subjects in the school curriculum. It is very difficult for a child at the secondary level to choose desirable subjects by himself and it is, therefore, very necessary that he is given adequate guidance.

In providing educational and vocational guidance in the very beginning, the children who are going to get admittance in the secondary stage, should be made conversant with different types of education and vocational opportunities which are available in the country. This information will be helpful to them in choosing the subjects from the curriculum and also the vocations for the future.

12.3.3 Organization of Consultation Services in School :

We should make efforts to organize adequately the guidance programmes in our schools. The principal of schools should arrange for proper consultation services. In organizing the activities of the consultation services, care should to be taken that they help in solving the

problems of each child of the school. Since the teachers lack in knowledge of guidance techniques it is essential that a counsellor is appointed in each school. He should provide guidance to each child after collecting relevant details about him. The functions of a counsellor will be as follows :

1. Administration of Psychological tests.;
2. Collection of individual data pertaining to the children;
3. Making available the various types of vocational and educational information to the child;
4. Giving individual guidance to those children who are to choose the subjects from the school curriculum or who are to choose a vocation for their life;
5. Seeking the co-operation of other agencies in getting the students employed.

The personnel who are required for the guidance services are; psychologist school counsellor a medical man, a social worker and many trained teachers.

12.3.4 Collection of Personal Data :

The ultimate concern of guidance in schools is the planning of the educational and vocational careers of individuals. This planning can be done only when there is adequate information and knowledge about the individual concerned.

Knowledge of the individual as a whole is required. Among the mental and physical conditions and the social and economic circumstances are many factors which significantly affects the educational and vocational plans of pupils.

Only those facts which can be used by guidance workers or by pupils themselves need to be recorded and collected. The items of pupil data which are generally important for guidance can be grouped under the following headings :

- (i) **General Data** : General data consist of the information that are useful in locating the individual's problem and assets and in making contacts with those who can extend background information about him. The home address, name and occupation of the guardian, checked over regular intervals, are most essential items in this group.
- (ii) **Social environment** : Information about home environment including details about the size of the family and the relationship among family members, the educational and economic status of the parents obviously have a close bearing upon the upbringing of children. The social conditions existing in the neighbourhood determine the companionship and outdoor interest of a child.
- (iii) **Physical data** : Information concerning the pupil's health and physique are

obtained through medical examination at school and the medical record of his illness. The bearing of physical function upon vocational guidance is obvious because of physiological demands of occupations upon the workers. There may be minimum standards of physical fitness for entering certain jobs which thus limit the entry to those who do not fulfil the specified conditions.

- (iv) **Achievement data** : School achievements in curricular subjects are usually considered an important indicator for the future accomplishments of pupils. It also indicates the trend of their interests by showing their comparative standing in various subjects. Objective and reliable measures of school progress can be obtained if new tests are used.
- (v) **Psychological data** : Psychological data are intended to give information regarding the mental characteristics of ability interest and personality of pupils. They consist of the results of administration of psychological tests and are often considered to be valuable sources of pupil data for guidance.

The significance of each of these data for educational and vocational choices appear specially in such cases where, for instance, a person chooses the medical profession because of his strong scientific interests and a sympathetic attitude towards the sick and the suffering. Similarly, the high intellectual score of a person may ensure for him a high position in competitive examination for I.A.S.

Psychological tests have come to occupy a recognized standing as desirable aids in educational and vocational guidance since efforts have been made to classify vocations with reference to their requirement regarding intelligence, special aptitudes and interests, etc.

- (vi) **Data concerning the individual's educational and vocational plans** : As guidance implies assistance to the individual in planning future activities, this assistance must begin from the individual's earlier plans for himself. There is a possibility that during the process of guidance, the individual's earlier educational and vocational plans may be completely changed. This may be necessary in view of the cumulative information being made available regarding the individual himself and more recent data regarding his education and vocational opportunities.

12.3.5 Sources of Pupil Data :

The facts grouped under the above headings have to be obtained and properly recorded for each pupil who is to be guided. Various aspects of the data will require technical assistance of different types of experts. The use of the best tools and measures that are available in each field, will also be called for. The best tools or techniques may be :

- (a) Planned interview with parents for general information.

- (b) Questionnaires filled by parents for health records etc.
- (c) Interview and questionnaires together or separately can be very useful. An efficient interview requires a certain amount of skill and preliminary preparation on the part of the interviewer.
- (d) Teachers can obtain data by observing the behaviour of children in the class-room and on the playground. These observations can be made more objective, reliable and useful making use of a check list regarding them.
- (e) Role of counsellor for co-ordinating and analyzing data is very important. Counselling interviews provide data about the special items in individual cases and so it is also an important sources.
- (f) Various types of cumulative records or personal data sheets can be used. Accumulation of the pupil data over a number of years requires a folder of personal file that is not too cumbersome for frequent reference.

12.3.6 Uses of Educational Guidance :

1. Educational guidance helps the pupil to understand his potentialities. Every student has different potentialities. Guidance helps students to select subjects according to their interest, need and ability.
2. To provide help in the selection, help of curriculum according to one's own ability and aptitude obtain good achievement in that field.
3. To help in personal welfare as they get profession according to choice become effective and happy.
4. To help in social welfare, which is associated with personal welfare. In this way social welfare is attained.
5. Provision for a good study habit among students, which also helps in the development and building good habits.
6. To extend help in making healthy adjustment. The main purpose of guidance is to maintain adjustment in life.
7. To help in fulfilment of occupational purposes, with the help of guidance they select appropriate job for them.
8. To extend help in self directed effort in appropriately developing potentiality and then try to develop their hidden potentiality.
9. There is also need for educational guidance in school because of
 - (i) Increase in individual differences.
 - (ii) Need for adjustment in day to day life.
 - (iii) Increase in vocational subjects.

- (iv) For making known to different livelihood and opportunities.
- (v) Change in the objective of education, teaching method and curriculum.
- (vi) For preventing unproductive -expenditure in education.

It becomes clear from the above discussion that educational guidance for the present age is very important because of impact of unemployment, effect of mechanisation of life and effect of democratic look.

12.4 Vocational Guidance

Guidance in the vocational field is called vocational guidance. It is essential because every person is different in interest, attitude and aptitude. It helps a person to select a job according to choice and gives them lot of satisfaction in their job. Reber (1985) has defined vocational guidance as one where the task is to assist a person in finding the proper or suitable vocation. A large battery of tests, intelligence, vocational, interest, aptitude, achievement etc. is used.

Vocational guidance is getting much importance these days. The General conference of International Labour Organization in 1949 described Vocational Guidance as 'assistance given to an individual in solving problems related to occupational choice and progress with due regard to the individual's characteristics and their relation to occupational opportunity.'

Vocational guidance helps the child in choosing his vocation. Every child is given guidance in accordance with his abilities. An individual is given guidance to choose, out of hundreds of vocations which are available to him, one for which he possesses ability.

Each child differs from other in his general intelligence, specific interest, and temperament etc. On the other hand, for different vocations, different types of training, ability and interest etc., are required. The function of guidance is that it provides help to the child to choose that vocation out of the vocations available in the society which is in keeping with his ability, interest, aptitude and capacity.

In schools, vocational guidance begins when the choosing of the child's present activities has a great influence on his future life. When the child is choosing the subjects for study then he must know whether these subjects will be helpful or not for his future vocation. Therefore, guidance begins at that stage where the child is required to choose a few subjects for his study from the school curriculum. This sort of guidance is known as educational guidance. We can thus say that educational and vocational guidance are not separate from each other. Vocational guidance thus helps in choosing a vocation/occupation and entering into it, preparing for it and achieving success into it.

12.5 Techniques of Guidance

The best methods of guidance in school are those which enable the pupil to know facts

about education and occupations and to interpret them in relation to each other for planning his own future. Some of the methods involve work with groups of pupils while others require individual relationship through interviews.

12.5.1 Working with groups :

James A. J. Describes groups guidance as, "any group enterprise or activity in which the primary purpose is to assist each individual in the group to solve his problems and to make his adjustment." Common requirements for educational courses or occupations suitable for school-leavers can be given in a class talk.

Group methods are of special significance in the initial stages in standard VIII or IX for preliminary orientation.

These methods include :

- (i) Class talk by teachers and visitors,
- (ii) Career Conferences,
- (iii) Audio Visual aids,
- (iv) Visits, Questionnaires, etc.

12.5.2 Working with individuals :

Guidance is a personalized service in which group techniques play an indispensable role. Counselling is, however, considered to be the most intimate and vital part of the entire guidance programme. It consists of consultation, mutual interchange of opinion and deliberating together. Counselling service in a guidance programme entails planned provision for serving the unique needs of pupils through person-to-person relationship of counsellor, and counselling should not be identified with giving advice. It is more like talking over a problem with some. Counselling aims at drawing out a problems through discussion and making its implication clear. "By its very nature counselling is personal and dynamic relationship between two individuals who together approach a more or less well defined problem of the younger or less experienced or less wise with mutual consideration for each other to the end that the problem may be more clearly defined and that the one who has the problem may be helped by a self determined solution of it."

Counselling interviews are facilitated if a separate room or office in quiet environment is provided for counselling. In this room there must be stored :

- (a) adequate cumulative records,
- (b) adequate educational, and
- (c) occupational information material.

Ruth Strong describes interview at the heart of counselling process, to which other techniques are contributory. It is a dynamic face to face relationship.

Numerous factors go into making the process of interview complex. Among these the personality of the interviewer, the person being interviewed, relationship between them, and the

setting and content of the interview may be considered as of greatest significance.

The personality of the interviewer has indeed a great deal to do with the success of an interview. His philosophy of life and attitude towards people and work are patent, though invisible factors. Certain personal qualities plus training and practice in counselling are assets for a successful counselling. He should be a good listener and must create a healthy environment. They are as under :

1. **Preparing for the Interview** : Pupils should know the part that counselling plays in the guidance programme and the extent to which the counsellor can assist them. This orientation can be accomplished through group discussions and talks at the beginning of the year. Nothing can be attained through the counselling interviews unless the pupil approaches counsellor with a consciousness of his need. The counsellor should prepare himself with all the information at his disposal about the individual, educational and vocational requirements, etc.
2. **Gaining rapport** : Symonds defines rapport as a 'personal relationship of mutual trust and respect based on a feeling of confidence and security in the other person.' An honest and frank attitude, capacity to keep confidence, keen and sincere interest in the child's needs are the principal factors helpful in establishing rapport.
3. **Defining the counselling situation** : The counsellor shows his inability to supply ready solutions. He should show willingness for discussion and finding out solutions. The counsellor should clarify the view expressed by the counsellor and reformulate his statements so as to bring out inter-relationship.
4. **Guiding the interview** : Discussion should be confined to the problem in hand. Moralizing and condemnation have to be avoided. Self-respect of the interview must be maintained.
5. **Building up the plan** : The interviewee needs to be helped in coming to grips with his problem and to do his thinking. Counsellor should give direct assistance in this when the child goes wrong. Before the end of the interview, the pupil must draw a tentative plan for the immediate future. The pupil should leave the interview room with developed confidence.
6. **Recording the interview** : Brief notes should be taken during the course of interview. Details are to be written immediately after.
7. **Following through the interview** : After interview ascertain that the pupil gets information and for the plan of study or work the formulated facilities are available. Periodic information should be got from the pupil or from the institution.
8. **Number of interviews** : More than one session is required. Effective counselling

requires at least one interview in the course of a year. The function of counselling interview may vary from one interview to another. At the first interview, a rapport may be established or preliminary information etc. obtained. At later stages, the interviews should help a pupil to follow on with his plans and to get best facilities available.

9. In the end, we may say that guidance is a continuous process, the need for which is felt at each stage of education of the child, say from the stage of primary education to the university education and sometimes even after that. At the present juncture, most of our students are unable to get this help. The state is taking some steps in making provision of such services in some special school but it will still take a long time to provide the facilities of guidance services to most of our students unless of course all the agencies of education are active in this direction.

12.6 Summary

1. Guidance is an individual help which is given to a person to enable him to solve his problems. It is a continuous service which should be available to each and every child.
2. Vocational guidance helps the individuals to choose their vocations in accordance with their abilities. This sort of guidance is to be essentially given with educational guidance. Educational guidance is that help which is given to the children to choose some subjects for study and other educational activities from their school curriculum and other activities which are available.

Guidance can be given by the teachers but since usually they are not fully familiar with the techniques of guidance, therefore, it is essential that guidance should be given to the children by specialists in the field.

3. In the schools, guidance services should be properly organized. For this, the Principal should realize his responsibility. In every school, a counsellor should be appointed who should be fully trained in the techniques of guidance.

The data which are required to be collected and the information concerning the child are

1. Personal information,
 2. Data concerning social environment,
 3. Physical data,
 4. Data relation to achievement interest, intelligence, personality, aptitude etc.
 5. Eduational and vocational plans of the child.
4. Guidance techniques can be adopted in two ways :

- (i) with groups
- (ii) with individuals.

The main individual technique is interview. In interviewing children, the counsellor should proceed very carefully. He should create confidence among the children and should give guidance after understanding their personal problems quite adequately.

12.7 Key Words Used

Guidance	community,	vocational,
individual,	recreational,	activity,
sponsored,	economic,	personality,
prepared,	understand,	confront,
attainment,	educational,	curriculum,
activities,	vocational,	consultation,
adequately,	counsellor,	conference,
significance,	preliminary,	dynamic,
environment,	condemnation interview,	physical,
service,	provision,	education.

12.8 Questions for Exercise

12.8.1 Short answer type questions :

1. What is guidance ? How is it different from counselling ?

Ans. See 12.1

2. What is a personal guidance ?

Ans. See 12.2

12.8.2 Long Answer questions :

1. What do you mean by guidance ? Explain the meaning and importance of educational guidance ?

Ans. See 12.1 & 12.3

2. Explain the meaning and importance of vocational guidance.

Ans. See 12.4

3. Explain the techniques of guidance.

Ans. See 12.5

12.9 Suggested Readings

1. Sulaiman, Md & Sinha, R.K : Adhunik Siksha Manovigyan
2. Singh, A.K : Siksha Manovigyan.
3. Skinner, C.E : Educational Pshychology
4. Mathur, S.S. : Educational Pshychology.
