ASSESSMENT CONCEPT AND STRATEGIES

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Assessment is one of the best tools to know our students/learner. Teacher recognises that it helps to improve their teaching and they may be able to know where students stand. In this paper we would like to improve of assessment in day-to-day teaching and learning in the classroom and its board spectrum in the society at large. It helps to know learning pattern of students in general.

Introduction

The word assessment is derived from the Latin word "Assidere" which means to sit besides. Therefore assessment in the present context carries significant relationship to its etymological meaning. In the school education, assessment holds a significant place in trying to find out or apprise our self about the child performance. Educational assessment is a term having wide range of implications that includes all the process and the product that describes the nature and extent of a child's learning.

Purpose of Assessment

The scope of assessment depends upon the purposes of educational assessment. It may either be used to screen the group of students whether they conform or do not conform to given standards or it may be used to evaluate educational programme and teaching methodologies. Culture has pervasive effects on determining the ways in which assessment are done. Therefore, cultural considerations play a significant role in distinguishing parameters of assessment across nation. Authors such as Mercer (1973) and Satter (1982) argued that many formal tests are biased against students from minority culture. This bias may take many forms. Two common examples are text questions that hold little relevance to the minority group. Such omissions and commissions in terms of assessment have not been found in Indian context. More so because the assessment modalities are governed by centralised bodies such as CBSE, ICSE and State Boards. In such a situation, individual school and teacher do not have a say on the assessment structure. There are more takers of pre-designed system.

Type of Assessment

Assessment can be divided into two types – formal assessment and informal assessment. Formal assessment proposes standards that compare the individual in performance with the peer group. Formal tests in evaluation processes are best used for classification of students on the basis of intellectual, sensory and academic ability

in order to determine a student's eligibility performance. With this the purpose of testing often is completed in several sessions and the results are evaluated by the team of professionals. Formal test can also be used to evaluate the measure of an educational programme. A great deal of caution needs to be exercised in evaluating student as well as school programme. A slightest degree of error may lead to determination of wrong judgment. A lot is based on formal assessment in considering a course on future for the child as a useful educational programme. Parallel with the formal assessment, informal assessment can also be administered. The informal assessment consists of those processes of evaluation that indicates skills and behaviour relevant to the curriculum with the used teacher made devices. Informal assessment may constitute of test rating devices, checklist and observational system. Many of the items in the informal devices selected from instructional material like worksheets, games, flash cards etc. While giving informal test, the investigator should carefully observe and take note regarding the student's responses patterns depending upon the requirement of assessment information. The type of assessment whether formal or informal needs to be decided.

Assessment for Determining 'How to Teach'

The distinct requirement of instructions to a particular student depends upon the assessment result. Experts had given specific guideline for determining how to teach. Research supporting the use of direct instruction has been performed.

States investigating the effectiveness of direct instructions for teaching academic skills have reported positive results.(Carnine and Silbert, 1979; Chadwick and Day,1970; Hartman,1974; Lovaas, 1968; Simth and Lovitt, 1973; Stephens, 1977, Hartman and Cooper, 1973).
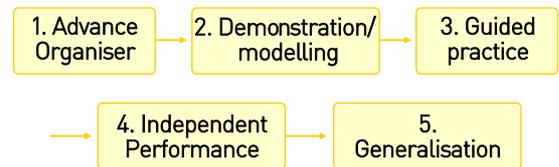

Fig. 1 *Direct Instruction Sequence*

The sequence in Figure 1 presents the basic steps of direct instruction. Learning Progress is assessed at each stage of the direct instruction sequence to determine if teaching is effective.

Advance Organisers

Advance organisers are used to improve the students content (Lenz, 1982) and develop the instructional process. If students are provided the steps of instruction it help them how to follow the content area. Mercer and Mercer (1985) has suggested the following as an advance organiser :

- provide background information
- motivate students to learn
- identify topics and/or tasks
- provide a structural framework for the class period
- clarify required activity
- introduce vocabulary
- state concepts to be learned
- state expected outcome

Demonstration/Modelling

This stage helps the students to learn about the new skills in particular concept and it gives them opportunity to ask more questions and learn the topic in better way. Teacher demonstrates in front of the students and that is why their ideas get clear and they can also learn and do themselves.

Guided Principle

In this stage students practice new skill with the help of teacher. They can learn with the help of peer and by doing repeatedly their errors get cleared. In this stage they get feedback from the teacher and feedback helps them to learn more. Students get verbal praise in this stage from the teacher.

Independent Performance

In this stage students start performing independently. If they are not able to perform they repeatedly start doing it by following the teachers' guidance, and sooner or later they become independent learner.

Generalisation

The generalisation skills occur when the student masters the skill and apply his mastery to solve problems. For example, if a child masters in properties of triangle then the child is able to solve the problems related to triangle.

Summary of Direct Instruction

All the above components of instruction are for effective transaction in the classroom. Their

success have been documented through commercially produced programmes such as Distar reading (Engelmann and Berner, 1974), Corrective reading programme (Engelmann et.al.., 1978), and Corrective Spelling through Morphographs (Dixon and Engelmann, 1979). These components help the student with knowledge , motivation, and practice to various learning situations(Alley and Deshler, 1979; Shumaker , Deshler , Alley and Warner, 1983; Warner, Schumakar, Alley, and Deshler, 1980). Direct instruction includes the continuous assessment it helps the child to get feedback as per his/her need from the teachers.

Assessment of Mathematics Education

Learning of mathematics follows consequence that includes two basic concepts along with developments of computational skills. Many researchers claim that evaluating to understand the basic concept of mathematics leads to learning problem in the later year. Mathematics assessment revolves around the fundamental of computations.

The Nature of Mathematics

The Mathematics is a sequential concept. If child learns addition and master it then he can learn subtraction. The content of mathematics has logical structure. The content has to design from simple to complex relationship. Researchers (Sibert, Carnine, and Stein, 1981; Underhill, Uprichard, and Heddens, 1980) report that optimal learning occurs when instruction follows a hierarchy of math skills. Mastery of lower skills is required to develop higher skills in mathematics.

Level of Learning

Level of learning plays very important role in mathematics teaching. Underhill, Uprichd, and Heddens(1980) report several basic levels of learning in mathematical learning experiences. These levels are concrete, semi concrete, and abstract. Concrete level helps to develop manipulative skills. Semiconcrete level involves working illustrations of items to perform math task. The helping items include dots, tallies, pictures. The abstract levels mean to use numerals and student have to solve problem with the help of numerals. Student with difficulty in maths needs much experience with concrete and semi concrete experience before they start numerals. Traditionally assessment is conducted at abstract level only. But, authorities in mathematics education(Denmark, 1976; Engelhardt,1976; Reisman, 1982; Underhill,1976)

said that assessment should not be limited to abstract level only. Traditional achievement helps to determine the achievement level of children and general area of weakness. Once the problem area is identified, the teacher may use informal assessment techniques at the concrete level to determine the necessary instruction for teaching specific concepts and skills.

Sequencing of Mathematics Instruction

To ensure efficient learning of essential math skills has to design programme and held the levels of learning, sufficient practice activities, and coverage of concepts, computation, and skill application. The following figure shows how the numerous components of math programme can be integrated (Susan, S.,et.al.1986). There are two strands.
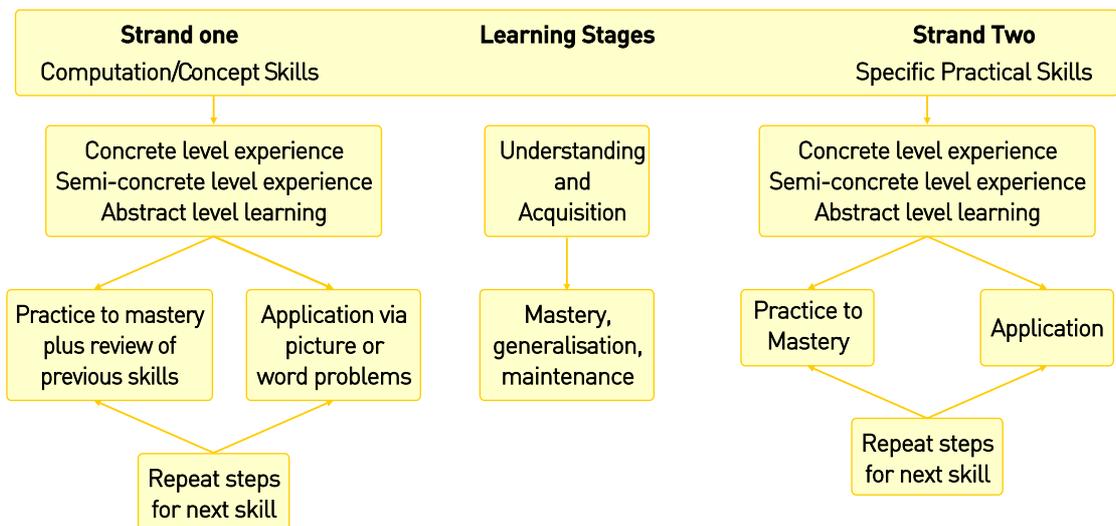

Fig. 2 *Mathematics Teaching Sequence*

Mastery of Skills

The assessment process helps to find out which skills is mastered by the child and in which skills the child is lacking mastery. The determination of skill mastery may be done by using percent correct and rate correct and incorrect. If an untimed criterion approach is used, it is good practice to include three items for each skill and 67 per cent or 100 per cent as criterion for mastery (Underhill, Uprichd, and Heddens,1980)

Conclusion

Assessment is one of the important tool by which we able to know the progress of the student. For overall development of the child in particular subject the informal assessment is also required which help the instructor to know the level of each child and accordingly the treatment may be provided to the child. This may help the child to achieve the mastery level in the subject which is utmost requirement for the progress of the child in the present time.

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