

CHAPTER 6 ASSESSMENT

6.1 Purposes of Assessment

Assessment can be used for a variety of purposes such as evaluating the teaching effectiveness, diagnosing the learning difficulties of students, screening and placement etc. In this syllabus, assessment is mainly considered as an integral part of the teaching and learning cycle. It is a process of gathering information to find out students' achievements related to the set objectives so as to enhance the teaching and learning processes.

Information collected in assessment help

1. teachers to

- understand how students are progressing;
- recognize students' strengths and areas for improvement in learning;
- work out ways of helping students;
- plan their lessons.

2. students to

- understand their own progress;
- recognize areas and ways for improvements in learning.

The Learning Targets and Learning Objectives describe the desired breadth and depth of contents in which students need to learn and thus constituting the basis for assessment. The essence of assessment is to judge students' performance with respect to the Learning Targets and Learning Objectives.

6.2 Assessment Strategies

The complexity of learner performance which cannot be described by a single set of scores or single type of assessment activity is well recognized. Through various modes of assessment activities, evidence of learning could be collected to reflect the students' achievement in mathematics. However, assessment may cause students' anxiety and undue pressure, loss of confidence and interest and, in extreme cases, refusal to learn. Over-assessment may also increase teachers' workload unnecessarily. To avoid such adverse effects, school needs to formulate its own appropriate assessment and reporting policy according to the school's culture, teachers' experiences, learners' needs and interests. Based on this school based assessment policy, teachers may also include a range of well-planned assessment activities and recording formats in their teaching/learning plans such as their schemes of work.

In planning assessment,

- a variety of activities such as tasks or exercises covering the comprehensive range of learning objectives should be included; and
- the opportunity for all students to demonstrate the full range of their individual

capabilities, including evidence for students to demonstrate higher cognitive skills, should be provided.

Assessment activities may include:

- class discussions or oral presentations;
- observations of students' performances during lessons;
- classwork and homework;
- project work such as making models, statistical surveys, etc;
- short quizzes;
- tests and examinations; and
- extra-curricular activities such as Mathematics Club, Mathematics Week, etc.

Activities may involve individuals or groups, can be formal or informal. They may be teacher-directed or may involve students in making judgment. It is noted that some of the Learning Objectives especially those related with the affective domain may be difficult to be assessed in a formal way. Teachers should try various informal ways such as verbal response to provide feedback to students.

Assessment activities can be conducted in a formative or summative way. Formative assessment is an ongoing evaluation process of students' progress so as to help teachers to diagnose students' strengths and weaknesses in learning. Summative assessment is an assessment of students' overall progress at certain intervals, such as the end of a school term, a school year or a Key Stage. It is designed to provide a comprehensive, summary description of performance and progress in students' learning.

6.3 Feedback from Assessment

The evidence collected from the assessment activities should be used as important feedback for students to improve their learning and for teachers to adjust their teaching strategies and pace. Immediate feedback from formative assessment activities can be provided to students during class time or in delivering their assignments. They can be in verbal or in written form. Students with this immediate feedback can clarify their mistaken concepts before further knowledge to be built on. Extra efforts can be paid to improve areas of weaknesses. Feedback from summative assessment activities can provide information for students to plan their subsequent phase of study.

Teachers can use the information collected in the formative assessment activities to adjust teaching strategies, decide whether to include further consolidation activities or introduce enrichment topics in the subsequent day-to-day teaching. Information gained in the summative assessment activities can be used as a basis for the planning of the teaching sequence, the breadth and depth of the learning units in the subsequent term or year. This

information can be very useful for schools to adjust their aims and strategies of the school-based mathematics curriculum.

To enable learning in both school and home to be synchronized, it is essential that there is effective and efficient communication between teachers and parents. Some studies reveal that parents consider “practice makes perfect” and rote memorization important in their children’s learning. This belief may lead to both positive and negative impacts on children, including over-emphasis of drill-and-practice in improving children’s learning. An informal involvement in different home-school activities or a formal written report on students’ progress could be used as a channel of communication. Based on the evidence collected from the assessment activities, more information on how to improve children’s learning could be provided to parents through these channels.