

ASSESSMENT, MEASUREMENT AND EVALUATION

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There has been so much said and written about assessments that anything more written about it will be superfluous. Nevertheless an attempt shall be made at giving the topic a different perspective. Needless to say that assessment is part of the 25% that most teachers detest about teaching. But it happens to be an integral part of the teaching learning process and any educational system or process.

I found Dr Bob Kizlik's article in ADPRIMA very interesting—he starts by quoting 'anything that is not understood in more than one way is not understood at all'. So he goes on to say that most of us would find it difficult to explain what we mean when we say 'understand'. It is very often inferred from responses to MCQs, problem solving tests etc. Yet a year or less after solving these tests most students forget even the fundamental concepts of what they thought they had 'understood'.

So it occurred to me that measurement, assessment and evaluation which form the bases of the teaching learning process needs to be 'understood' correctly and in more than one way.

Among the many definitions that I have been reading there are some that appealed to me which I shall share with you.

Measurement is the process by which attributes are determined—it is only a process of collecting information.

This data needs to be processed to make meaning out of it.



Assessment is a process by which the information collected is related to a known goal or objective for which it is designed.

What can be assessed are knowledge, skills and attitudes including behavior and aptitudes. Knowledge is traditionally gauged with the help of tests of various kinds. Dr Bob says that there is an underlying assumption that there is a relation between what he/she does in relation to what he / she knows. What one has understood is more difficult to assess and is complex. However skills are easier to assess and they can be improved with practice while understanding cannot.

The university of Toronto defines it as the process of gathering information from a variety of sources that accurately reflects how well a student is achieving the curriculum expectations.

It follows that a diagnostic assessment is used at the beginning to determine a starting point for teaching, the formative assessment is done throughout the teaching of a lesson to give feedback to the students for improvement—it

has to be built in to the lesson plan and design with the learning outcomes in mind and the summative assessment is at the end of a lesson to gauge how much a student has learned.

Evaluation is the most complex term to understand. It is a 'value' given to the learning based on some criteria, merit and worth according to the teacher and the expected learning outcomes of the lesson .

Assessments as mentioned earlier have ideally to be built into the lesson design and plan. Unfortunately we notice the following issues in our system

- a. The learning outcomes /expectations are not clearly thought out.
- b. Therefore the assessment pattern is not part of the lesson design
- c. Assessment itself is not well designed
- d. Therefore there is often no validity- the test is not testing what it is meant to test
- e. There is no reliability as comprehension of the words used in questioning varies
- f. Not enough time is spent on auditing the assessment
- g. The assessors are not sufficiently trained



We very subconsciously justify these with lot of 'reasons'

- a. We are dealing with large numbers
- b. There are so many 'lessons' to be taught
- c. We are prisoners of time
- d. We are dealing with students with diverse abilities and backgrounds

While it is a 'yes' to all of these—one of the solutions could be to spend more of 'our time' planning lessons, including valid assessment designs which test the learning outcomes that also need to be planned before the lesson is taught. Unfortunately we seem to have an idea that the 'spare' time in school, the short weekends and the vacations are 'our time', all of which is to do things which are 'relaxing' and what we have always wanted to do—all the while wanting to be labeled "professionals"! This needs to be examined.

Research reveals some interesting facts :

- a. Students are assessed on matters which are easy to assess them on so there is over emphasis on memory
- b. Students focus on topics which are assessed at the expense of those which capture their interest
- c. Good performance does not mean that the student has 'understood' the concepts
- d. Students concentrate on assessments that are graded. Grading drives learning
- e. 'Successful' students spend more energy in class getting clues as to what topics are going to be assessed than actual study.

These are points that every teacher has actually observed and knows from experience. We also know that we are guilty of some of these ourselves knowingly or unknowingly. We have all said while teaching- "this assignment will carry 'x' marks –or this mark will be taken into account for the report card—this is going to be

graded etc". We have very often said –“now pay attention to this-it is a very important concept, a sure question for the exams"! We also sometimes set a paper depending on the time available to correct it. We are also capable of setting an easy if we were to be assessed/ evaluated by the results we produce or if we want the class to feel good before a summative exam.

Coming back to the first of the issues—large numbers. When there is an assessment of a large group a few things get left out in the assessments

- a. Testing of specific skills – as there is no time for individual observation/ measurements of the skill
- b. Lack of time for individual feedback
- c. Discussion after formative assessments for effective learning to occur

Some of the possibilities that we could examine are

- a. One could divide the class –one group performing the task required to demonstrate the skill which the teacher could observe, while the other could take up a writing assignment which could be assessed later-or say in a practical class in science-one teacher taking a viva the other observing practical skills
- b. After an assessment we could make a list of categories of mistakes students have made and announce it to the class, and later call specific students to the table and tell them some specific points they need to pay attention to.
- c. As for dealing with mixed ability groups –turn it to everyone’s advantage by using peer assessments , but first give clear guide lines for assessing

Let me clarify that with experience, many teachers do some or all of these so this is not to imply that it is a new idea.

In order to make assessment efficient and

effective for large groups or masses we could make testing standardized. This will take care of the routine knowledge and these tests can also be administered by any one. The answers can also be analysed by anyone as the answers are unambiguous . These can be in the form of Multiple Choice Questions, short one-word answers, fill in the blanks, match the following etc.

But when it comes to skill testing like reading skills we tend to get a little confused. Earlier we went by just experience—today even these have been researched and analysed and rubrics have been developed to expand on what we mean when we say ‘he is “good” at reading or writing or arithmetic. So it is easy for even an inexperienced teacher to understand what is meant by ‘good’ in reading and grade the student using a common standard. This makes for reliable testing for large groups.

Rubrics are multi dimensional sets of scoring guidelines that provide consistency in assessments. They provide a specific measurement system for each task.

- Rubrics make assessment more efficient and quick and removes vague subjectivity
- The parents understand what the grades mean
- They demystify grades—(should formative assessments be graded at all is yet another issue!)
- Student can see what to look for to succeed and can do self assessment
- Teachers’ expectations are made clear to the student and parent

These also have their draw backs- in large groups the data entry takes a long time. Teachers do not get to use discretion—assessments are done as per rules. As Hattie J says in one of her articles, Expert teachers guide learning by identifying the ability, experience and background of their

student , monitoring their learning and providing feedback to them. Moreover, they have an affective connection to their students and the content they teach.”

Their assessments are done based on all of these—somewhat self referenced rather than norm or criterion referenced. They assess the learning of a student based on how much he could do earlier versus what he can do now and based on his individual competency. Rubrics remove that ‘discretion’ from these natural teachers.

All said and done we in India have to work around these issues. How best we can do it is the challenge – but assess we must. We are in transition-the various Examination Boards

have been working on different systems like Continuous Comprehensive Evaluation and such like trying to find some system that will suit the needs of our country and I am sure that if we are looking for it we will find it.

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