

Chapter 9

General Principles of Assessment

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Introduction

The concept of assessment in education calls for measurement. Measurement in education is usually done with the instruments of tests, projects and examinations. These instruments of measurement must generally satisfy certain principles. This chapter deals with principles of educational measurement and related issues.

Behavioural Objectives

At the end of this unit, participants should be able to correctly define and explain the following:

- Measurement in Education
- Functions of Educational Measurement
- Measuring Instruments
- Principles of Assessment

Measurement in Education

This is data and information gathering process aimed at determining the amount of knowledge, skill and attributes that a learner has acquired in any given course or task (Erickson & Wentling, 1976). Outcome of measurement in education is usually raw scores that indicate number of items that each student has gotten right. Instruments for measurement in education includes tests, projects, assignments, research reports, term papers, practical work and rating of teachers and peers. Measurement is a pre-evaluation process.

Evaluation is a decision-making and/or judgment-passing process based on measurement. It is a post-measurement process to ascertain the adequacy of

scores obtained through measurement thus determining the suitability or adequacy of level of achievement in a course, programme or task. The process of assigning letter grades to scores obtained is an evaluation as letter grades indicate the extent to which such objectives have been achieved. Remarks of satisfactory/unsatisfactory, suitable/unsuitable, good/bad and comparative judgments of good, better, best, *et cetera*. can be regarded as evaluation.

Functions of Educational Measurement

Erickson and Wentling (1976) and Okoro (1994) each identified seven functions of measurement and evaluation. Erickson and Wentling's classification include:

1. Monitoring students' progress;
2. Aiding career guidance;
3. Classifying and placing students;
4. Aiding programme evaluation;
5. Aiding curriculum improvement;
6. Improving instruction and hypothesis testing; and
7. Assessing teaching effectiveness.

Okoro on his part classified the functions into:

- Determining whether students understand what they are being taught;
- Providing feedback to students on how well they are doing;
- Enabling the teacher to know students who need special attention;
- Enabling the teacher to provide educational and vocational guidance to students;
- Supplying information needed in programme evaluation and curriculum development;
- Assessing the effectiveness of teacher; and
- Determining when students have the necessary knowledge and skill to graduate from a programme or enter the workforce.

The two sets of functions are simply different ways of saying the same things. Thus measurement and evaluation have implications for the teacher, the student, teaching process and curriculum.

Evaluation may be done at three stages in the teaching/learning process. The stage at which it is done informs its nomenclature and role. The three major types of evaluation are: (i) Formative, (ii) Summative and (iii) Ultimate evaluations.

Formative Evaluation: This takes place in the early stages of the teaching/learning process and helps to:

- Aid the teacher in student placement and formulating of instructional objectives;
- Select course contents; and
- Assess progress and required changes in instructional objectives, course content, and pedagogy. Examples include: class quizzes, homework/assignments, tests, *et cetera*.

Summative Evaluation takes place at the end of training/programme or course units mainly to determine degree of success, or readiness to either enter the world of work or proceed to higher levels of study. Examples include: sessional examinations, certificate examinations, promotion examinations, *et cetera*.

Ultimate Evaluation is done when a programme graduate is engaged in the job or position for which he/she is trained. It is to be noted that the end result of any educational process should not be award of certificate alone but also acquisition of knowledge, skill and attitude that can be gainfully employed in real life. Ultimate evaluation can help to modify programmes of study. Follow-up, impact and performance evaluations are examples of ultimate evaluation.

Measuring Instruments

Several types of instruments are employed in measuring procedures and techniques as earlier mentioned. Test, the most widely used measuring instrument, may be classified by purpose, content, format, *et cetera*. but the most conventional basis of classifying test types is the "type of behaviour measured". Consequently, a test may be said to be:

- Achievement test;
- Intelligence (general mental ability) test;
- Aptitude test;
- Interest test; and
- Attitude test.

Principles of Assessment

Principles are moral rules or strong beliefs that influence actions. According to Oxford Advanced Learner's Dictionary (2006) principles are laws, rules or theories upon which actions are based. Principles of assessment in this context refer to the guidelines or laws that govern the administration of tests or examinations. The principles are considered under two major sub-headings: teaching and teachers qualities.

Principles of Teaching Assessment: The Assessor/Teacher/Lecturer needs a kind of self-assessment. Teacher's self-assessment according to Dean and Whitlock (1992) entails the assessor/lecturer checking properly the content of instruction, accuracy of instruction and materials, presentation, adherence to presentation standards and guidelines. Principles of self-assessment are significant as they have the propensity of influencing all other assessment procedures. Self-assessment is considered in the following areas:

Learning/objectives/goals: The teacher/lecturer should personally assess himself with the learning objectives and goals. Are the objectives clear enough? Are the objectives realizable or unrealistic?

Instructional materials/teaching aids: Are the instructional materials and teaching aids appropriate? Are the materials adequate in terms of quantity? Are the materials germane to the subject matter? Are the materials current or obsolete? The lecturer needs to assess his preparedness in these areas.

Teaching methodology/pedagogical prowess: The teacher/lecturer should assess his method of teaching or lecturing. Is he able to pass across the message to the students? Has he been able (through his own intuition/training) to deliver the message with the best pedagogy?

Teaching/learning environment: Is the teaching/learning environment conducive? Are there distractions in form of environmental bottlenecks? The teacher should be able to identify environmental bottlenecks to learning and try as much as possible to remove such.

Lecturer/learner interaction: If the teacher/lecturer is not free with the students, the students may have negative impression of the teacher/lecturer and this may affect students' output.

Content of instruction: Is the content adequate? Is it shallow? Is it appropriate? Is it above the level of the students? Is it current or out of date?

Mastery of subject matter: The teacher/lecturer needs to assess himself whether he is a master of the subject matter. One cannot teach or lecture successfully a course in which one's mastery is questionable or uncertain.

Principles of Teachers Assessment

Firmness: The teacher/assessor/lecturer should be as firm as possible in the discharge of his duty. Lecturers should take their work seriously and let the students know this. The lecturer that always comes late to class cannot discipline a student that is a habitual latecomer. Class management providing conducive learning environment is part of firmness.

Fairness: As much as possible, the lecturer must be fair to the students. He should not exchange fairness for wickedness. In setting questions, the lecturer must not ask questions that are completely strange to students.

Friendliness/Empathy: The lecturer should be friendly with the students and have empathy for them. He should put himself in their shoes, feel for them and be considerate in the type of questions that are set.

Faithfulness: In assessing the students, the teacher/lecturer should be faithful in marking the scripts. This implies having marking scheme and following it religiously. The idea of giving marks to students arbitrarily is unethical and tantamount to act of gross professional misconduct.

Equity: The lecturer should give students a level playing ground. Special condition or undue favouritism should not be given to any student. All should be given the opportunity to perform according to their varying abilities under same or similar learning environment and conditions.

Precision and objectivity: Test and measurement when correctly applied lend credence to precision and objectivity to teacher's impact on the learner's changes in behaviour (Anikweze, 2005).

Input/output principle: Each profitable contact a teacher has with learners ought to enhance learners' knowledge/skill/aptitude/value, *et cetera*.

Conformity to standards: To enhance and maintain standards, students are given examination time-table, arranged in examination halls, banned from bringing some materials into examination halls amongst other measures (Anikweze, 2005).

Accuracy/Clarity/Simplicity: Test items must be moderately difficult. Ambiguity must be removed as much as possible. Using test to threaten students should be avoided. Giving tests that will never be marked should be avoided too.

Ethical Principle: A truly and thoroughly trained teacher would guide against all unethical principles that will affect his profession and raise unnecessary questions on the veracity or otherwise of his professional competence. The teacher must guide against the following:

Mass failure: Any good teacher should be worried that his students failed. Mass failure of students may be symptomatic of lecture failure. It means things are not normal, and the teacher, students, learning materials, environment, could have been responsible.

Jumbo scores/grades: Some lecturers give jumbo scores/marks to students simply because those students have paid for the score. Such lecturers are misfits in the academic environment. Students should be marked and scored appropriately irrespective of their socio-economic status, gender, race, *et cetera*.

Pre-determined grade: Some lecturers engage in grading the students in their hearts before examinations are taken. Some would fix the number of people that will get A, B, C, D, E, or F in their hearts before examinations are written. It is an act of professional misconduct and an aberration of the duty of lecturers as counsellors. It should be frowned at and avoided.

Conclusion

The concept, functions and general principles of educational assessment have been discussed in this Unit. It is of great essence that these concepts, functions and general principles be imbibed by teachers/lecturers and strictly applied to enhance appreciable learning on the part of learners. The whole essence of these is in the interest of learners who should always be at the centre of all teaching/learning activities. The concept of learner-centredness is the order of the day in current educational systems all over the world. Strict application of all these will ensure good teacher/learner relationship and consequently conducive environment in academics.

Exercises/Self-Assessment

1. Define assessment in education.

2. State any five functions of educational measurement.
3. Principles apply to the teaching profession, the teacher and ethics. List and explain:
 - a. five teaching assessment principles;
 - b. seven teachers assessment principles; and
 - c. three ethical principles.

References

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