JOINT ADMISSIONS AND MATRICULATION BOARD

Manual of CRITICAL ASSESSMENT COMPETENCIES FOR TERTIARY EDUCATION LECTURERS IN NIGERIA

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INTRODUCTION TO THE REVISED EDITION

Today, the field of psychometrics, measurement and evaluation is growing at a fast pace globally owing to its enormous value in solving educational assessment problems. My experience as a lecturer in the University for several years has exposed me to the fact that theories and techniques of psychological measurement, which include the measurement of knowledge, abilities, attitudes, and personality traits should be applied in all areas of assessment especially in the higher institutions of learning. Psychometrics deals with design and interpretation of tests that measure psychological values such as aptitude, ability, personality, memory, happiness, and intelligence. It is a well-known fact that there is inadequate knowledge of the theory and practice of educational assessment techniques among lecturers in higher institutions in Nigeria, which is rather unfortunate.

More saddening is the fact that agencies and institutions abound with mandates to engage in educational assessment but without any thought being given to their ability and competence based on any formal or even informal training in Assessment. Institutes, Academics and Professional bodies award membership, fellowship and diplomas purportedly based on educational/skill-assessment yet without any prior training for the educational assessors. No wonder that quite often, the validity and reliability of the test are not only suspect but laughable.

No examination in Nigeria is misunderstood by the populace as the Unified Tertiary Matriculation Examination (UTME) - a cohort-based norm-reference test, consistently being misconstrued as achievement rather than ranking test even by some educated elites.

This manual, which addresses this knowledge gap, targets squarely the critical assessment competences required by this all-important group of stakeholders in higher education. The manual is organised into ten inter-connected modules.

Module One deals with conceptual and policy issues in assessment, meaning, process, and types of assessment (assessment of, for, and as learning), national policy framework on assessment and implications. Module Two examines issues referring to the typology of educational measurement - different tests and what they measure. Module Three addresses developing credible types of examinations, curriculum/syllabus, objective levels, coverage (test blueprint), alignment of learning outcomes, activities, and assessment, while Module Four addresses techniques for constructing achievement tests, focusing on types of

questions/items (essay, objective, practical, oral, portfolio), and refining test items (item qualities).

In Module Five, issues of quality and confidence (validity, reliability, objectivity, fairness, and usability) are the focus, just as Module Six discusses test administration and scoring (environment/supervision, guiding against cheating, testing procedures - regular and CBT, scoring rubrics, marking scheme, moderation of scores/grades, etc). Module Seven deals with issues on reporting within the feedback process as well as the ethical issues involved in this aspect of assessment.

On the other hand, Module Eight focuses on understanding test scores in relation to measurement error and comparability of scores (standardisation of scores). Module Nine explores comprehensively the gamut of e-Testing, highlighting its aspects and dimensions and their strengths and drawbacks.

Finally, Module Ten prescribes reconciliation of testees with tests through application of alternative psychometric approaches/principles as a therapy for examination malpractices. It explains different types of alternative psychometric approaches and explores how they can effectively curb the menace of examination malpractices.

Two national workshops with the participants from tertiary institutions and a few secondary school teachers from all the zones of the federation were held at both the University of Ibadan and Manpower Development Institute, Dutse, Jigawa State to present and analyse the manual. This revised edition incorporates the lessons from the workshops. The workshops also convinced the Board to make the manual freely available to all by securing the removal of all copyright restrictions from the work. This has been achieved. In addition, not less than seventeen (17) credible national educational assessment establishments/bodies have, as a result of the inspiration from JAMB, and this manual, subscribed to the establishment of the Professional Assessment Academy of Nigeria for the training of the educational assessors. An independent team to midwife the establishment of the non-Governmental Academy is being constituted. This again, is an immediate outcome of this manual.

This Manual, which is a guide for lecturers in the higher educational institutions, particularly those without formal educational assessment training but find themselves setting and grading educational tests at various levels and other circumstantial educational assessors, is purposefully pedagogical to

engender critical insights into assessment processes and strategies for achieving validity, reliability, and fairness in testing. The manual will also serve as a reference model for lecturers who are not in the field of educational assessment but are eager to learn how to administer quality assessment to their students.

I, therefore, strongly recommend this manual to all lovers of quality educational assessment, with the hope that it would bridge some obvious gaps in contemporary educational assessment in Nigeria.

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MODULE TEN

RECONCILING TESTEES WITH THE TESTS: A THERAPY AGAINST EXAMINATION MALPRACTICE

by

Is-haq O. Oloyede

10.0 Module Overview

Examination malpractice has come to assume a prominent dimension in educational assessment so much so that no discourse on educational assessment would be complete without a focus on it. It has been described as a cankerworm that has eaten deep into the fabrics of our education system. Not only has it been the subject of several panels, commissions, or committees, several bodies/agencies, organisations, and individuals have continued to wage what appears to be an endless war against this hydra-headed monster that tends to vitiate the credibility of respective educational assessments.

Rather than diminish in the face of the multifaceted approaches and strategies adopted in this war against this monster, it has continued to grow in sophistry and complexity. The fact that these multidimensional approaches which essentially focus on a system of punishment and reward have not succeeded in curbing or eliminating examination malpractice clearly suggests alternative psychometric approaches or principles.

These alternative psychometric approaches or principles are of course embedded in the major concepts, principles and activities, and issues to which you were exposed in the preceding nine modules. In this special module, we shall tease out these psychometric principles and examine how they can effectively curb examination malpractice. These principles are predicated on the assumption that test-induced phobia is a major factor that predisposes students to indulge in examination malpractice. In effect, examination malpractice can be curbed or eliminated by

eliminating this phobia or demystifying examination/test. Taking a cue from medical science, we can utilise the symbolism of medicine for disease treatment where there are curative, preventive, and palliative methods. In the same vein we can have curative, preventive, and palliative methods to the elimination of examination malpractice. The curative (punishment and reward) approach to examination malpractice will entail the usage of all available tools for eradicating the menace of examination malpractice. The preventive method approach will be to the block every loophole for examination malpractice. Palliative approach (which in medicine refers to the provision of a holistic care for patients who are no longer responsive to curative treatment) is for teachers and examiners to reduce examination phobia for students and candidates through the involvement of the testees in test-item generation, test construction, test administration and scoring. This palliative approach may demystify tests and reconcile tests with the testees.

10.1 Psychometric Principles that can Demystify Tests or Examinations

What are those psychometric principles or practices that can help to demystify tests or examinations and therefore reduce or eliminate examination phobia?

10.1.1 Integrated Approach to Assessment

In Module One, you were introduced to three (3) types of assessment - assessment of learning, assessment for learning, and assessment as learning. The three forms of assessment serve different functions and relevance in the educational practice at all levels. However, the major challenge resides in the proper integration of these forms of assessment in order to optimise their benefits. Current assessment practices tend to over-emphasise assessment of learning to the utter neglect of assessment for learning and assessment as learning. This has given rise to a situation where the learners tend to perceive examinations or tests as a means of

'condemning' rather than helping them to fully actualise their potentials. Consequentially, they develop excessive anxiety or phobia towards examinations or tests and would go to any length to succeed in such examinations or tests.

To demystify examination and reduce the incidence of examination malpractice, assessment as learning should be given the highest priority followed by assessment for learning and the assessment of learning.

10.1.2 Mainstreaming tests into the learning-teaching process

In the calendar of our schools and tertiary institutions, the period mapped out for learning is different from that mapped out for examinations or tests. This practice divorces tests from learning-teaching when in actual fact, the test is an integral part of the learning process. When testing is divorced from the learning process, learners develop negative dispositions toward testing and this will fuel the desire to indulge in one form of malpractice or the other. Consider, on the other hand, a system that integrates or mainstreams tests into the learning-teaching process whereby students have to do a test at the end of every lesson or unit as part of the normal learning-teaching process. The feedback from these tests is then used by the learners and/or the teachers to improve learning as well as track their performance. In such a system, there will be no special period called the 'examination period'; learners become accustomed to tests, fear of the tests is eliminated and the test would become non-threatening to learners. Tests being conducted while the testees are unconscious that they were being tested have been found to be more reliable. For example, you may wish to interview a candidate for a sensitive position to test his personality trait and his emotional intelligence. The testee may be invited for a social outing through which he or she is assessed while oblivious to the fact that the assessment is being done.

Finland is a country which has utilised minimisation (or elimination before age of 16) of examination to improve learning.

10.1.3 Designing Tests that cater for different abilities and Individual Differences

It is an obvious fact that learners differ in terms of their intellectual abilities. Given a class or group of learners, some will be of high ability while others may be of moderate or low ability. Since it is an individual's intellectual ability that sets the limit to what that individual could possibly do or achieve, it would not be appropriate to subject learners of varying abilities to the same test. This is exactly what happens in tests modelled after the classical test theory. In such tests, testees of varying abilities are made to take the test. How would one expect testees endowed with moderate or low intellect to compete with testees endowed with high intellectual ability on a test that demands high intellectual ability? Such a test will be lacking in equity and fairness. It is analogous to asking 5-, 12-, and 25-year-olds to carry a load that is appropriate for a 25-year-old. In the United Kingdom, age is normally used to classify testees' expected ability for assessment. This has been found to be fair, The rate of learning is also being measured and streamed into slow and too fast categories.

The implication of 'one cap fits all' test, is that the low-ability testees will continue to face frustration and may develop a feeling of alienation from tests. This is one of the major shortcomings of the classical test model. On the other hand, this testing challenge has been resolved by the Item Response Theory (IRT).

10.1.4 Democratisation of Test Development Process

A major principle of modern pedagogy that is known to promote effective learning is active learner participation in the learning process. However, while we encourage active learner participation in the learning process, we tend to exclude them from participation at the stage of testing or assessment. This truncates the principle of democratisation because assessment or testing is an integral part of the learning process.

It is against this background, that we see, in the democratisation of the test development process, great potential in reconciling testees with the tests.

Shohamy (2001) clearly identified four critical requirements in practicing democratic testing:

- shared authority,
- collaboration,
- the involvement of different stakeholders (test-takers included), and
- the monitoring of undemocratic uses of tests.

Democratisation of the test development process as conceptualised in this module focuses on the first three requirements namely; shared authority, collaboration, and the involvement of test-takers. This will entail giving the testees an opportunity to participate in the test development process. In practical terms, students are asked to generate test items after every learning session. These items are edited by the teacher and pooled together with those generated by the teacher to form the test instrument. In this way, item generation becomes a collaboration which is based on shared authority between the teachers and the students. This process will inspire confidence in the students since they know that they participated in generating the test items or in setting the examination. It is this confidence that the testees need to shun examination malpractice.

10.1.5 Engaging Students as Markers and Drafters of the Marking Scheme

The marking scheme specifies the teacher's expectation of how students should respond to the questions as well as the distribution of marks to the critical or salient points. Whosoever will score (or mark) the students' scripts are expected to strictly follow the marking scheme in allotting marks to the critical or salient points as identified in the marking

scheme. This will ensure that different teachers or scorers will arrive at similar score for the same student or testee. Thus, the marking scheme or guide is a useful tool for ensuring scorer reliability in essay-type tests. In peer grading, students are made to exchange their scripts and each student marks or scores the script of the other student (peer assessor). Normally, such students are given the marking guide prepared by the teacher which will guide them to score the script. This practise of involvement in peer assessment using the teacher's marking guide to score each other's performance will make them become familiar with the teacher's expectations of the correct or acceptable responses. This will reduce the stress and anxiety associated with examinations or tests.

It might even be more profitable to involve the students in the process of developing the marking scheme. Engaging students in developing the marking scheme implies that the marking scheme will now reflect the students' voices and no longer that of the teacher alone. This, of course, is in tandem with the principle of democratisation of the testing process which advocates for collaboration and involvement of all stakeholders including testees (Shohamy, 2001).

10.1.6 Using the Marking Scheme as Instructional Resource

Marking schemes describe responses that are considered correct or acceptable. These responses are further analysed and broken down into salient or critical points to which scores (or marks) are allotted. In essence, the score a student obtains will be determined by the salient points and their relative weighting. Using the marking scheme as an instructional resource will therefore expose the students to these salient points and make them become aware of relative importance of each of the units/sections based on the scores assigned to each. This will improve their capacity to respond appropriately to questions during examinations or tests. In addition, they will become more confident in facing tests and thus reduce the possibility of examination malpractice.

10.1.7 Open Book Examinations (OBE)

Conventional tests or examinations require testees to close their books and not bring into the examination venue any material related to the subject matter of the test or examination. Hence, they are referred to as Closed Book Examinations (CBE). One major limitation of this type of examination is that it tends to generate anxiety in the students as it compels students to read and memorise everything in their notebooks and textbooks with most of them not understanding what they have been taught. There is usually a noticeable increase in the frequency of students who report ill during such examination due to stress. We are all familiar with the 'examination fever' syndrome that characterises such examination periods under the CBE system. These factors tend to fuel the desire on the part of both the students and their parents to indulge in examination malpractice.

Against this background, the Open Book Examination (OBE) has been suggested as an alternative to CBE which can drastically reduce the incidence of examination malpractice. Open Book Examination is a type of examination system which allows the testee to bring into the examination hall and make references to notebooks, textbooks, and any other resources. There are basically two types of OBE. One is the traditional sit-down or limited time OBE. In this type, students come into the hall with their notebooks, textbooks, and other resources and are given the question paper with a time limit within which to complete the examination. A variant to this type as stated by Jain (2020) is that students are only allowed to bring books and materials approved by the authority. The second type is the take-home OBE. In this case, the students are given the questions to take home and submit their scripts after a given period of time. This is generally known as take-home-assignment.

A study by Heijne-Penninga, Kuks, Hofman, and Cohen-Schotanus (2008) reported that 'students preferred OB examinations because they

feel less anxious and more optimistic during examinations and consequently perform better'. This appears to be in tandem with the study by Loi and Teo (1999) which reported that 'students perform better in OB examination compared to CB examination, but only on items that required simple recall. This difference was not found on items at higher taxonomic levels.'

More importantly, evidence from the study by Mokdad and Aljunaidi (2021) suggests that the use of OBE contributes positively to the reduction of academic dishonesty.

In effect, if properly implemented, the Open Book Examination can lead to a significant reduction in examination malpractice. For example, in Russia, questions are set and given to all the students before the examinations. Questions for the examinations are selected from the questions compiled for the students. No question that has not been given to the students is allowed at the lower level. The fact must be underscored that to drive maximum benefits from OBE, the focus must be on the assessment of higher-order thinking skills as opposed to lower-order thinking skills. The question should not be such that demand mere recall of information that the students can readily copy from their notebooks or textbooks rather they should be questions that call for analysing, synthesising, creating, and evaluating.

10.2 Summary

In this special module, an attempt was made to put together the key issues that were discussed in the nine modules of this manual. The central message is to achieve a paradigm shift away from the traditional assessment model that heaps the whole responsibility of assessing students on the teacher who only uses tests or examinations for the purpose of judging and classifying students. In that traditional model, the teacher acts as the sole authority and tends to deny the student his/her democratic rights. The assessment instruments only reflect the teacher's

voice and the real essence of assessment which is to improve learning is often lost. This heightens students' and their parents' anxiety and phobia of tests or examinations; a condition that predisposes them to indulge in examination malpractice. The new assessment paradigm must therefore be such that can reconcile testees or students with tests or examinations by eliminating anxiety or fear and inspiring confidence in the students. It must give the students the necessary assurance that tests or examinations are for and not against their interests.

The central message of this module is the need to review our assessment policy and align it to best global practices. We need to brainstorm on how our students can be engaged in collaborative teaching, collaborative testing, and in collaborative curriculum development.

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