ASSESSMENT IN FOCUS

St. Mary's University
Addis Ababa, Ethiopia

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Assessment in Focus is dedicated to the dissemination of information and developments at the Testing Center, as well as to shed light on aspects of educational measurement and evaluation issues that would assist in the development and maintenance of up-to-standard and quality education at SMU, and at similar institutions of higher learning in Ethiopia.

Editor's Note

Assessment in Focus Newsletter is a bi-annual newsletter dealing with current issues and activities that take place at the Testing Center. The current issue focuses on design and implementation of the criterion referenced assessment preparation, measuring non-cognitive skills, criterion-referenced instructions, test validity, dos and don'ts while writing multiple choices, the genuine meaning of education & the importance of tutor comments as teaching tools in distance education.

Related to the design and implementation of institutional tests, various trainings were conducted in order to build the capacity of the assessors and instructors of St. Mary's University (SMU).

In this regard, SMU has also been exerting a continuous effort to start the implementation of criterion –referenced assessment bound by measurement and evaluation. In the process of implementation, performance standards are set in line with the learning objectives.

Among others, criterion referenced assessment is used as a learning guide for the students where it indicates the focus area of the subject matter, thereby avoiding the wastage of time. This in turn, will help to produce productive students. Moreover, the use of criterion referenced assessment helps the item makers to produce items that are neither too difficult nor too easy.

It also provides a basis for determining a candidate's level of knowledge and skills in relation to a well-defined domain of content.

In summary, criterion referenced assessment is believed to have beneficial outcomes which include:

- the opportunity to evaluate students' achievement against the already set standards and criteria.
- ensuring the students to work and earn grades on their own.
- clearly communicating the criteria and standard used to judge the quality of the students' work.
- guiding the students, so that they can focus on the task of learning.
- offering, detailed guidance on how and on what bases the students will earn specific grades for the task they have done.
- providing students with greater opportunities to accept responsibility for their learning.
- promoting transparency in assigning the grades which students earn for their work.
- improving students learning outcomes.
- enhancing the alignment between the development of the graduate attributes at the course level unit learning out comes.

In addition, there are certain purposes to be considered when developing assessment tasks learning experiences for students in a unit of study. These are: to see that student learning is meaningful and then, guide them. Based on this, it is to inform students of their progress and inversely inform the staffs, too, about the effectiveness of their teaching. The third step is to provide data for schools and faculties to help them arrive at final grades for students in a unit of study. This is with the aim that decisions are made on the awarding of a certificate, diploma or degree. This in turn, will help the concerned bodies (schools and faculties) to rank the students for awards or progress to another level of study.

Finally, as it is on progress at St. Mary's University, it is expected that the whole process ensures academic quality and standards.

* INSIDE *

Activities at the Testing Center

TC, as the name indicates, was mainly established to produce assessment tools like examinations, assignments and projects to the various academic units of SMU and to outside users. The TC is currently making significant contributions to the University. The activities carried out by the TC in the last 6 months are offered below.

Training to new staff

Six trainings were given to the newly employed assessors on 'Test Item Development' by Ato Gezahegn Zewdie on different occasions from April – September 2015 and another training was given to Kidist Mariam Schools newly employed staff on test planning and test item construction by Ato Shenkute Mamo and Ato Gezahgn Zewdie. Similarly, a training was given to 15 instructors of Regular Program of the University on Criterion Referenced Assessment and Instruction on May 23, 2015. On May 26, 2015, another training was given to regular division students on 'Handling Exam Anxiety'. The trainings were given by Ato Shenkute Mamo.

Placement/Employment Tests Given

TC offers services to governmental as well as non-governmental organizations by providing placement/ employment tests. Accordingly, the TC has given 3 employment/ placement tests for the Development Bank of Ethiopia to 88 accountants and 15 Loan Officers from April- Sept. 2015. Any organization seeking placement/employment test for its candidates can approach the TC for the service.

International Tests Conducted

In the months from April-September 2015, 17 sessions of TOEFL were given to 213 candidates. Similarly, 26 GRE sessions were conducted to 112 candidates. TC encourages customers to come and get the ever fair services.

Peer-to-Peer Experience Sharing Conducted

The SMU-TC has made peer-to-peer experience sharing with Addis Ababa University, Institute of Educational Research (IER) on Oct 6, 2015. The experience sharing was initiated by the SMU-TC with an emphasis to acquire knowledge and good practices of the Institute of Educational Research with reference to the preparation and administration of special purpose tests such as international and employment, and joint research works and publications.

The peer-to-peer experience sharing was made among institutional representatives led by Dr. Daniel Desta and Dr. Girma Lemma from AAU, IER and Dr. Wubishet Shiferaw and Ato Gezahegne Zewdie from SMU-TC. Both members from IER underlined that they took the opportunity to work together with TC and pointed out that the dichotomy between public and private higher institution is minimized.

Finally, the representatives of both institutions agreed to work together in the areas of research and publications, graduate program review, thesis evaluation, training on assessment and standardized achievement tests, mobilization of resources for common goals and laying the necessary foundation for both top management organs to have memorandum of understanding in the future.

Similarly, TC management members held a half-day experience sharing meeting on September 6, 2015 with the academic top management of CODL. The meeting was prepared by CODL top management to share TC's organizational efficiencies regarding

work-discipline and vise-versa, and the contributions both would put into action whenever necessary.

Measuring Non-Cognitive Skills

By Dr. Wubishet Shiferaw,TC

The primary function of education is to bring some changes in the cognitive, affective or psychomotor domain. Measurement of behavioral changes in the cognitive domain refers to knowledge of facts understanding, application, analysis, and the higher mental processes of synthesis, critical thinking and evaluation with teacher-made achievement tests. Teacher-made cognitive test is only one instrument to evaluate students' behavior. There are, however, other skills and behaviors, affective and psychomotor, that should be the concern of instructors, parents, students and anyone associated with education and training.

As teachers, we should evaluate not only what a student knows, but what he/she can do. Measuring what a person can do requires both an instrument (performance test) and a procedure. Procedure refers to the steps (process) followed in doing a task while the product refers to the end result. They are generally separate entities that can be observed, measured and evaluated independently. Although it may be sometimes difficult to separate the procedure from the product, it is essential to identify whether the instructional objective involves the performance of a set of tasks (prescribed order or process) or ability to do or make something (product).

The evaluation of both products and processes can be either subjective, objective, or a combination of the two. It depends upon what is to be evaluated which comprises such aspects as timing, speed, precision, sequence and appearance. In evaluating procedure and products, teachers should make a job analysis to determine what abilities are to be tested, select the significant tasks, skills, abilities involved in the job, and develop an observation/plan. The major problems encountered in evaluating procedures and products are reliability and validity. In order to have valid measurement, it is necessary to know specifically what qualities of the product or process are to be evaluated. The best way to overcome this is to make a listing of all significant qualities of the product before evaluating.

To evaluate the procedure or product, we must first observe the procedure employed or the product made by the student. Then, on the basis of some scale, we ascertain the degree to which the steps followed or the product made are acceptable. To have a valid procedure and product evaluation, we must have a valid and reliable observation using observational tools such as checklists, rating scales and ranking methods etc. The weight assigned to each step or characteristic should reflect the instructional emphasis placed on each criterion.

In addition to measuring students' achievement of verbal information, intellectual and motor skills, teachers are also expected to measure the affective component of instruction (i.e. students' attitude and classroom behavior) which seems to be almost neglected in the current instructional assessment schedules. Attitudes and values are among the most vital outcomes learned in schools for they are important in determining how individuals react to situations in life. The affective disposition of the student has direct relevance to his/her ability to learn, interest in learning and attitudes towards the value of education. The affective development is so important to an individual's growth, development and behavior as an effective adult. Attitudes and values play an important role in a person's cognitive development.

Therefore, teachers need to develop, administer and use affective measures in the instruction process. Hence, systematically observing students in a natural setting is a very useful technique for gathering data about students' performance and about their affective behavior. Frequent observation of students' work

habit can provide a continuous check on his/her progress and to detect problems as they arise and take corrective actions. Observational data provide teachers with valuable supplemental information which could not be obtained in any other way. The use of proper observational tool such as checklist, rating scale, participation chart, anecdotal record/diary approach as well as the process of observing and recording an individual's behavior (observational technique) will enable teachers to have accurate, reliable, systematic, selective and carefully recorded data/information about student's progress.

Our future society depends as much on the affective behavior of its young generation as it does on intellectual powers. Educators, therefore, should recognize that pencil-and-paper achievement tests must be supplemented with other mechanisms in order to measure/describe the multi-facets of human behavior. In this regard, higher education institutions should be highly concerned with producing independent, competent thinkers who possess cognitive, affective and psychomotor skills.

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Criterion Referenced Instruction

By Shenkute Mamo, TC

The approach called 'Criterion Referenced Instruction (CRI)' is essential for an instruction to be measurable and consequently capable of being evaluated and systematically improved. Mager (1984) offers the following as the major arguments in favor of Criterion-Referenced Instruction (CRI).

- Instructional objectives are derived from job performance and reflect the competencies (knowledge/ skills) that need to be learned.
- Learners study and practice only those skills not yet mastered to the level required by the objectives.
- Learners are given opportunities to practice each objective and obtain feedback about the quality of their performance.
- Learners should receive repeated practice in skills that are used often or are difficult to learn.
- Learners are free to sequence their own instruction within the constraints imposed by the pre- requesters, and progress is controlled by their own competence (mastery of objectives).

According to Mager, all instructional objectives must be "SMART" as indicated below.

- **S**pecific: expressed clearly and singularly
- **M**easurable: ideally in quantitative terms
- **A**cceptable: agreeable by stakeholders
- **R**ealistic: in terms of achievement
- **T**ime – bound: a time frame is stated

Measurable objectives

Mager (1984) argues that both educational and training establishments clearly define measurable objectives. He also indicated that useful objectives contain the following elements:

A. Audience - An effective objective needs to specify the actor, such as: "The student will be able to ….."

B. Behavior (performance)- An objective always says what a learner is expected to be able to do. The objective sometimes describes the product or result of the action. When writing objectives, always ask yourself, "What is the learner doing when demonstrating the achievement of the objective?"

C. A Condition- An objective always describes the important conditions (if any) under which the performance is to occur.

Here are some examples:

- Given a list of…..
- Given a matrix of inter correlations …..
- With the aid of references ……
- Without the aid of a calculator ……

D. A Degree- If you can specify the acceptable level of performance for each objective, you will have a standard against which to test your instruction. Therefore, you will have the means for determining whether your instruction is successful in achieving your instructional intent. Adding a degree to an objective is a means of communicating an important aspect of what you want your students to be able to do.

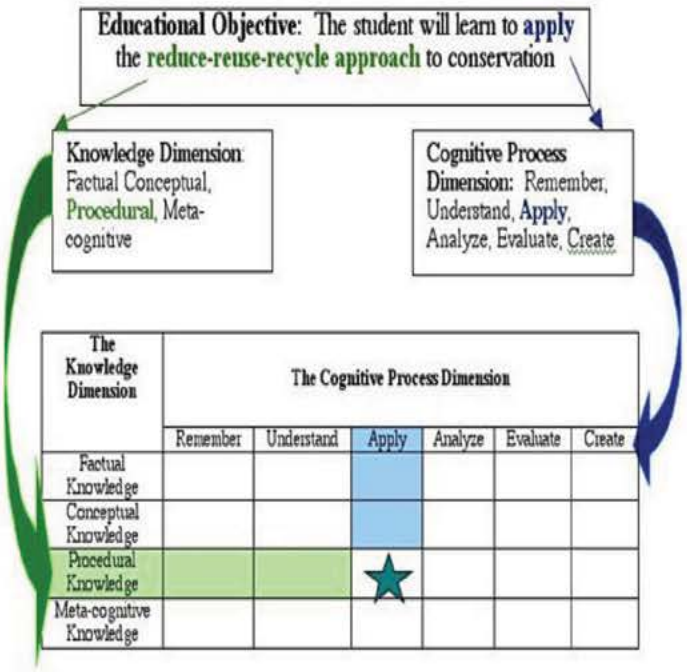
Examples of degrees:

- Time limits
- Accuracy/precision and
- Quality

Here, the type of instruction given is based on the domains of learning: (cognitive, affective and psychomotor) or "SKA" Skill, Knowledge and Attitude.

According to Anderson & Krathwohl (2001) the chart in the next table illustrates the use of the table as a tool to write a well–formed instructional objective identifying both content of the knowledge and the cognitive process to be engaged by the learner.

Anderson & Krathwohl Table



Classifying objectives with the revised taxonomy table

Anderson, L.W., & Krathwohl (Eds.). (2001).

References

- Anderson, L.W., & Krathwohl (Eds.). (2001). A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman.
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Dos and Don'ts While Writing-Multiple-Choice Items

By Abera Hunde, TC

The following recommendations are very important points to be followed while writing multiple choice item tests. Some of these recommendations are backed by psychometric researches, and others result from logical deduction.

1. Do ask questions that require more than knowledge of facts. For example, a question might require the selection of the best answer when all of the options contain elements of correctness. Such questions tend to be more difficult and discriminating than questions that merely ask for a fact.
2. Don't offer superfluous information as an introduction to a question; for example,

"The presence and association of the male seems to have profound effects on female physiology in domestic animals. Research has shown that, in cattle, the presence of a bull has the following effect:"

This approach probably represents an unconscious effort to continue teaching, while testing, and is not likely to be appreciated by the students who would prefer direct questions and less to read. The stem just quoted could be condensed to:

"Research has shown that the presence of a bull has one of the following effects on cows" (17 words versus 30).

3. Don't ask a question that begins, *Which of the following is true [or false]?* followed by a collection of unrelated options. Each test question should focus on some specific aspects of the course. Therefore, it is good to use items that begin, *Which of the following is true [or false] concerning X*? followed by the options all pertaining to X. However, this construction should be used sparingly if there is a tendency to resort to trivial reasons for falseness or an opposite tendency to offer options that are too obviously true.
4. Don't put negative options following a negative stem. Empirically (or statistically), such items may appear to perform adequately, but this is probably only because brighter students who naturally tend to get higher scores are also better able to cope with the logical complexity of a double negative.
5. Don't use "*all of the above.*" The recognition of one wrong option eliminates "all of the above," and the recognition of two right options identifies it as the answer, even if the other options are completely unknown to the student. Probably, some instructors use items with "all of the above" as yet another way of extending their teaching into the test. It just seems so good to have the students affirm, say, all of the major causes of some phenomenon. With this approach, "all of the above" is the answer to almost every item containing it, and the students soon figure this out.
6. Do ask questions with "*none of the above"* as the final option, especially, if the answer requires computation. Its use makes the question harder and more discriminating because the uncertain student cannot focus on a set of options that must contain the answer. Of course, "*none of the above*" cannot be used if the question requires the selection of the best answer and should not be used following a negative stem. Also, it is important that "*none of the above*" should be the answer to a reasonable proportion of the questions containing it.
7. Don't include superfluous information in the options. (See the reasons given in 2 above). *In addition, as another manifestation of the desire to teach while testing, the additional information is likely to appear in the correct answer : For example, see distracter 'c' below.*

A. W B. X C. Y because .... D. Z.

This is to indicate that students are very sensitive to this tendency and take advantage of it.

8. Don't repeat wording from the stem in the correct option. Again, an ignorant student will take advantage of this practice.
9. Don't use 'except' inappropriately. For example:
   "All of the following are true about the 'Derg' regime in Ethiopia except_____.
   A. it established a provisional government in 1974
   B. it exercised purge
   C. the president was dominant
   D. it permitted multi party system

This could be corrected as:*" Which one of the following is* ***not*** *true about the' Derg' regime in Ethiopia?"*

   A. It established a provisional government in 1974.
   B. It exercised purge.
   C. The president was dominant.
   D. It permitted multi party system.

10. Don't use a 'colon' in inappropriate place. For example: *"Referendum is an example of:*
   A. Representative democracy
   B. Direct democracy
   C. Absolute democracy
   D. Demonstration and petition

According to the above statement, option A, B, C and D are all examples of referendum rather than being distracters. So it should be corrected as: *"Referendum is an example of_____."*

A. representative democracy
B. direct democracy
C. absolute democracy
D. demonstration and petition

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Test Validity

By Gezahegn Zewdie, TC

Samuel Messick, (1989) a renowned psychometrician, defined validity as "an integrated evaluative judgment of the degree to which empirical evidence and theoretical rationale support the adequacy and appropriateness of inferences and actions based on test scored and other modes of assessment. Messick pointed out that validity is a matter of degree, not absolutely valid or absolutely invalid. He advocated that, over time, validity evidence will continue either in enhancing or contradicting previous findings.

Regardless of a form a test takes, its most important aspect is how results are used and the way those results impact individual persons and society as a whole. Tests used for admission to schools or programs or for educational diagnosis not only affect individuals, but also assign value to the content being tested. A test that is perfectly appropriate and useful in one situation may be inappropriate or insufficient in another. For example, a test that may be sufficient for use in educational diagnosis may be completely insufficient for use in selection for employment.

Most, but not all, tests are designed to measure skills, abilities, or traits that are not directly observable. For example, scores on the SAT measures developed critical reading, writing and mathematical ability. The score on the SAT that an examinee obtains when he or she takes the test is not the direct measure of critical reading ability of the students. The amount of critical reading ability an examinee developed must be inferred from the examinee's SAT critical reading score.

The process of using a test score as a sample of behavior in order to draw conclusions about a large domain of behaviors is characteristic of most educational and psychological tests. Test validity, or the validation of a test, explicitly means validating the use of a test in a specific context, such as college

admission, placement into a course or grading for certification. Therefore, when determining the validity of a test, it is important to study the test results in the setting in which they are to be used.

Responsible test developers and publishers must be able to demonstrate that it is possible to use the sample of behaviors measured by a test to make valid inferences about an examinees ability to perform tasks that represent large domain of interest.

Some ways of improving test validity

Some educators suggest that there are certain ways to improve validity as indicated below.

1. Make sure the goals and objectives are clearly defined and operational. Students' expectations also need to be written down.
2. Match assessment measures to the learning goals and objectives. Additionally, have the test reviewed by other faculties to obtain feedback from an outside party who is knowledgeable about the instrument.
3. Get students involved. The assessment tools prepared have to be reviewed by students of the same standard over the troubles of wording or other difficulties before they are used in the practical situations.
4. If possible, compare your measure with other measures, or data that may be available.

References :

www.allpsych.com
www.Wikipedia.org

The Genuine Meaning of Education

By Dr. Samuel Dermas, SGS

People strive a lot to educate themselves thinking that it leads to the establishment of a normal and prosperous life, and a bunch of scholars agree that education plays a huge role in having a stable and better future. What is worth remembering is our school life during childhood, as we sang songs aloud till our lungs ached, as the headmaster waved his baton frenetically to keep the tempo, with rivulets of sweat running down his face. Louder! Louder! He would shout. How much loud? Do you think our lungs are made of stainless steel? It was so smashing. Nevertheless, what is not deliberated quite often is what the responsibilities of educated people should be.

My colleague at Asmara University in Eritrea used to tell me that telling the truth puts you in a pool of problems, where you may have a tremendous difficulty to swim out. But is this what scholars should be afraid of by telling the truth. Where is the wisdom that we learn at school, or may be the wisdom that our great grandfathers acquired is more meaningful and powerful than the former? I see scholars who are quite self-centered, and claim to be taller than the ordinary people by climbing on their shoulders, which is far from rationality indeed. Let's be a role model and fight for truth.

I know people who think they are scholars just because they are able to speak English language. Of course, English is a global language which is powerful politically, socially and economically. Nevertheless, it may not be the sign of education. A bunch of people spend a great deal of time learning English language, but they end up by speaking a language that is neither theirs nor that of the Queen. Mastering becomes an illusion. All in all, knowing English language does not show that you are a scholar, but you can use the language to obtain a mountain of knowledge from the popular books written in English.

Eventually, the mass anticipate the few scholars to invent new ways of improving lives, which may happen through the course of research. It may not be worthy to carry out a research activity which is full of borrowings and paraphrased language, which proves what had been proved ten years back. Conducting a ground breaking research that

involves the authentic people, and which is quite meaningful for the public could be the scholar's responsibility. In conclusion, the real meaning of education is devoting oneself for the public. Let's start implementing it today.

The Importance of Tutor Comments as Teaching Tools in Distance Education

Compiled by Shenkute Mamo, TC

In distance education, learners are largely on their own to cover and study the learning-teaching materials provided to them in different media. Among these are the comments given to them by evaluators/tutors on their Assignment and Project Answer Papers. These comments are meant to offer feedback on how well a learner is doing.

Comments like "Horrible language…", "You have beaten about the bush…" are 'Harmful Comments'. Such comments fail to build any purposeful rapport between such distance learner and the distance tutor/ evaluator.

Comments such as" Please go through the lesson once again and also the question are " nothing more than words. They are 'Hollow Comments'.

"Please, read the lesson once again and re do the assignment" is a 'Misleading Comment' , which puts the learner on the wrong track. The comments, which do not confirm or question, illustrate or explain, refute or approve of anything, may be called 'Null Comments'. These comments include all types of zero –meaning non-verbal remarks. Among these are question marks, double question mark, double check marks, underlining, side brackets, etc. Comments such as "Not clear, not to the point." Negate facts, concepts, explanations are termed as a 'Negative Comment'.

"Your argument about situations/themes determining vocabulary is acceptable and the illustration given about the content is good" is an example of a 'Positive Comment' which approves the stand taken by the distance learner.

"Instead of giving negative illustration (i.e. of what is not wanted), you could have given positive illustrations.", is an example of a 'Constructive Comment'. "Since you almost fulfilled the criteria of effective language teaching materials, you have been awarded on 'A' grade. Please, keep up." is an example of a 'Constructive Comment' that shows tutor's comment for good accomplishment. (Compiled from IGNOU Materials)

Quotes Corner

Funny Quotes about Exams

Collected by Asnake Solomon, TC

"The human brain is amazing. It functions 24 hours a day from the time we were born, and only stops when we take exam".(markamount. com)

1. "During a test, students look up for inspiration, down in desperation, and left and right for information" (www. apna talks. Com)
2. "Sometimes, we finish the exam and sometimes, the exam finishes us." (markamoment.com).
3. All assessment in a perpetual work is progress . (Linda Suskie).
4. Sometimes, the questions are complicated and the answers are simple. (genius quotes. Org).
5. Sometimes, the wrong choices bring us to the right places .(pinterest.com) (quoteempire.blogspot.com).

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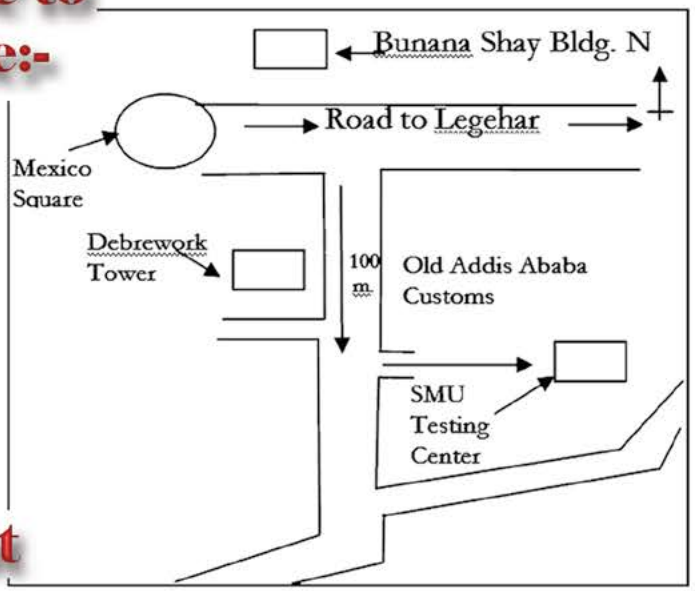

The Testing Center is located opposite Bunana Shay Building near Mexico Square. See the sketch map for details.

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