Assesing Affective Behaviour as a Vehicle for Achieving Attitudinal Change and Manipulative Skills among Students in Nigeria

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*Abstract:-***This paper examined effective measurement of affective behavior as a vehicle for promoting core values and skills among students in Nigeria. Teachers as "producers" of other professionals, such as doctors; lawyers; engineers, accountants etc have significant roles to play in achieving economic recovery. In view of the above, the paper examined the Bloom's Taxonomy of learning embracing, cognitive, affective and psychomotor domains. However, it observed heavy reliance on cognitive domain as against affective and psychomotor. Also, an analysis of some randomly selected question papers has also justified the over reliance on the cognitive domain. Moreso, clarification/explanation on measurement of affective domain as a tool for promoting values and skills was given. The paper concludes that affective behavior if effectively measured will make students imbibe the habit of trust worthiness and will inform stakeholders about the interest, attitude, feeling, ambitions etc of children for guidance, placement and assignment of responsibilities among others. That school managers and other stakeholders should devise a way of measuring affection for certification as one of the recommendations.**

I. INTRODUCTION

Assessment is a means whereby the teacher obtains information about knowledge gains, behavioural changes and other aspects of the development of learners (Oguneye, 2002). It involves deliberate effort of the teacher to measure the effect of the instructional process as well as the overall effect of school learning on the behaviour of students. It covers all aspects of school experience both within and outside the classroom. According to Esere and Idowu (2003), assessment refers to a systematic and objective process of determining the extent of a student's performance in all the expected changes in his behaviour, from the day he enters upon a course of study and a judicious accumulation of all pieces of information derived from this purpose with a view to using them to guide and shape the student and to serve as basis for making important decisions about the child. In other words, assessment should be systematic, comprehensive, cummulative and guidance oriented.

Assessment is systematic in the sense that it is planned, graded to suit the age and experience of the children and is given at suitable intervals during the school year. Appropriate timing saves students from being tested to death or becoming bored with too frequent assessments. Comprehensiveness of assessment means that it is not focused on academic skills alone. It embraces the cognitive, the psychomotor and the affective domains. A child is assessed as a total entity using all the psychometric devises such as test and non test techniques. Cumulative characteristics of assessment means that all information gathered on the individual has to be pooled together before a decision can be taken. To say that assessment is guidance oriented means that the information so collected is to be used for educational, vocational and personal- social decision-making for the child. Guidance and counselling activities thrive better on valid, sequential, systematic, continuous, cumulative and comprehensive information. (Denga, 1998).

Assessment/measurement covers the cognitive as well as the affective and psychomotor aspects of learning. It provides feedback to children and teachers for the purposes of improving their performance or modifying the content, context and methods of teaching, as well as in making a variety of other decisions.

However, the notion of whether assessment in Nigerian schools take into cognisance these attributes, places a question mark on the classroom teacher. What are the assessment practices of school teachers in Nigeria? In the same way, measurement of students' level of cognition has become the order of the day in our routine assessment practices. For example, in some of the examinations, students normally finish a two (2) hour paper in less than forty (40) minutes and ending up getting good grades. Consequently, this could be attributable to the nature of questions, especially where most of the questions require students to, list; mention; identify, enumerate, and their likes, which are more of testing lower order cognition. In fact, majority of teachers test students' ability to comprehend what they were taught with little or no emphasis on interest, attitudes, feelings, values, norms and or motor coordination which ought not to be so. Against this background Shephard (2008) in a study on higher education for sustainability: seeking affective learning

outcomes found that most teaching and assessment in higher education focus on cognitive skills of knowledge and understanding rather than on affective outcomes of values, attitudes and behaviours. Some areas of higher education, however, have effectively pursued affective outcomes and these use particular learning and teaching activities to do so. Key issues for consideration include assessing outcomes and evaluating courses, providing academic credit for affective outcomes, key roles for role models and designing realistic and acceptable learning outcomes in the affective domain. Educators have traditionally been reluctant to pursue affective learning outcomes but often programmes of study simply fail to identify and describe their legitimate aims in these terms. This paper emphasises the application of a relevant theoretical underpinning to support educators' legitimate aspirations for affective learning outcomes. It will also help these educators to reflect on how the use of these approaches accords with the liberal traditions of higher education.

II. MEASUREMENT

According to Bichi (2004) is the assignment of a number to a characteristic of an object or event, which can be compared with other objects or events. It is the act of determining the target's size, weight, length, capacity or other aspect. Is a process of obtaining a numerical description of the degree to which an individual possesses a particular characteristic. Measurement answers the question, "How much?" In addition he (Bichi) defines **Educational Measurement** as the use of educational assessments and the analysis of data such as scores obtained from educational assessments to infer the abilities and proficiencies of students. However, in psychometrics measurement is the assignment of numerals to traits such as achievement, interest, attitudes, aptitudes, intelligence, and performance.

Domains of Learning:

Domains of learning can be categorized as cognitive domain (knowledge), psychomotor (skills) and affective domain (attitudes) as described by Benjamin Bloom in 1956 (Bloom's Taxonomy). The initial focus was primarily for academia and now finds a comfortable place in training. Bloom and associates identified three domains of learning:

1. Cognitive: mental skills, intellectual capability (knowledge)
2. Affective: feelings, motivation, behavior (attitude)
3. Psychomotor: manual or physical skills (skills)

These are sometimes identified as "Do-Think-Feel" or Knowledge, Skills, and Attitude (KSA).

III. COGNITIVE DOMAIN

This deals with mental or intellectual capability of an individual that has been classified into levels. These levels represent a hierarchy of learning that goes from the simple (level 1) to the complex (level 6) as follows:

1. Knowledge – to check learner ability to recall basic information
2. Comprehension – confirm understanding
3. Application – use or apply knowledge
4. Analysis – interpret elements; see if the information can be broken into components
5. Synthesis – create or develop plans
6. Evaluation – assess, critical thinking

Now that we have defined the six levels, let's look at how they can be applied to instructional design. Lynne's blog explained how Bloom's Taxonomy could be used in structuring questions; this blog will add how it applies to the testing process.

1. Knowledge – to check learner ability to recall basic information

This is usually assessed using a non-performance test that checks for knowledge of the information the learner has been taught. This is accomplished through quizzes using assorted multiple choice, matching, or true/false questions. You want the learner to define, repeat, recall from memory, list, etc. the information he/she has learned. (e.g. List the six steps of Langevin's learning strategy.)

2. Comprehension – confirm understanding

This level is also a non-performance check for knowledge, but now you want the learner to "put it in their own words" by describing, explaining, discussing, etc. the information he/she has been taught. (e.g. Describe the six steps of the learning strategy.)

3. Application – use or apply knowledge

Here, the focus is on performance-based assessment. You have the learner apply, interpret, practice, etc. the information he/she has been taught. (e.g. Create a brief lesson using the learning strategy that you will present to the group. You must use all six steps.)

4. Analysis – interpret elements, break the information into smaller parts

For this level, you ask the learner to compare, investigate, solve, examine, tell why, etc. (e.g. This is an outline for a course, which was not received well by the learners. Compare this to the learning strategy, identify which part(s) of the learning strategy were omitted, and how this omission contributed to the course not being successful.)

5. Synthesis – create/develop plans; put pieces together to form a new whole

Here, you have the learner suppose, create, construct, improve, etc. (e.g. This is a handout of a course that is structured according to the learning strategy. It follows the six steps, but is not as dynamic as is could be. What would you add to each step to create a more dynamic course that gets the learner involved?)

6. Evaluation – assess, critical thinking

In this final level of Bloom's Taxonomy, you ask the learner to offer opinions, criticize, judge, recommend, justify, evaluate, or explain which option is better, based on a set of knowledge and criteria. (e.g. You have examples of two courses that use the learning strategy. First, compare the examples against the learning strategy, then compare one example against the other. Determine which one best exemplifies the learning strategy. Be prepared to present your decision to the table group.) Using Bloom's taxonomy in instructional design is an excellent way to help gauge the level of knowledge amongst your learners. As you can see, it can easily be integrated into the design process.

Table 1.0: An analysis of sample of seven randomly question papers

Course No.	Questions Stems	Process Verbs	Domain Measured
No. 1	1. What issues and practices give…? 2. ".. Identify … and explain …. 3. ".. Carefully explain ……….. 4. Identify and explain 5. ….. Defend this logically. 6. State and briefly explain …..	What and give Identify and explain Explain Identify and explain Defend State and explain	Cognition

No 2	1. a) What do you understand..?
	    b) Give an example of ……
	 2. a) Explain the meaning of……
	    b) Differentiate between ……
	 3. a) What is meant……?
	    b) With examples, explain……
	 4. a) Differentiate between…….
	    b) Describe the shape of…….
	 5. a) Mention…. Types of……
	    b) Explain how a ……..
	 6. Write short note on the ….:
		What
		 Give
		  Explain.
		 Differentiate
		  What
		 Eexplain.
		 Differentiate
		 Describe
		  Mention
		 Explain
		 Write
			Cognition

No. 3	1. List and explain the….. 2. Define the following…. 3. Mention and explain… 4. Briefly explain….. 5. List and explain any…. 6. Describe and mention….	List and explain Define Mention and explain Eexplain List and explain Describe and mention	Cognition

No. 4	1. A well.. must be … Discuss.
	 2. Identify any.. and explain.
	 3. (a) Construct a ……..
	    (b) Outline any……
	 4. Mention any four….
	 5. a) State at least…..
	    (b) Find the…….
	    c) …., explain to ……
	 6. a) Mention any…..
	    b) ….explain any ….
		Discuss
		 Identify and explain
		 Construct
		  Outline
		 Mention
		 State
		 Find
		 Explain
		 Mention
		 Explain
			Cognition

No. 5	1. What you need …..? 2. What are the……? 3. …. Explain.. and show how… 4. Discuss …… 5. Discuss any ……	What What Explain and show Discuss Discuss	Cognition
No. 6	1. Yi li'irabin wadannan…. 2. Kawo bayani…….. 3. Ka zayyana…., sannan ka yi bayani 4. Rattaba bayani dalla- dalla… 5. Gina jimloli guda……. 6. Kawo bayani mai gamsarwa……	Yi li'irabin Kawo Ka zayyana, ka yi bayani Rattaba Gina Kawo	Cognition

No. 7	1. … is wider in nature. Discuss
	 2. Define the word……
	 3. (a) Mention the…..
	    (b) Explain in detail the….
	 4. Define "Ijtihad" and explain…
	 5. Mention and explain the….
	 6. ……. Discuss.
		Discuss
		 Define
		  Mention
		 Explain
		 Define and explain
		 Mention and explain
		 Discuss.
			Cognition

The table above showed that, of the selected seven (7) question papers drawn, it has been indicated that all the process verbs were tailored towards measuring cognitive functioning of students. In other words, from the forty eight items (48) of the seven question papers pooled from different departments, all the items sought for information related to cognitive domain. This has justified the over reliance on cognitive behavior and mainly lower order cognition of recall and comprehension

IV. ASSESSING AFFECTIVE DOMAIN AS A TOOL FOR ACHIEVING ATTITUDINAL CHANGE

In line with the Continuous Assessment Policy which states that the final grading of students should reflect cognitive, affective and psychomotor behaviors, below is a description of how measurement of affective behavior should be conducted by a classroom teacher

Table 1.1 Guide to Measurement of Affective Domain

Level of Expertise	Description of Level	Example of Measurable Student Outcome
Receiving	Demonstrates a willingness to participate in the activity	When I'm in class I am attentive to the instructor, take notes, etc. I do not read the newspaper instead.
Responding	Shows interest in the objects, phenomena, or activity by seeking it out or pursuing it for pleasure	I complete my homework and participate in class discussions.
Valuing	Internalizes an appreciation for (values) the objectives, phenomena, or activity	I seek out information in popular media related to my class.
Organization	Begins to compare different values, and resolves conflicts between them to form an internally consistent system of values	Some of the ideas I've learned in my class differ from my previous beliefs. How do I resolve this?
Characterization by a Value or Value Complex	Adopts a long-term value system that is "pervasive, consistent, and predictable"	I've decided to take my family on a vacation to visit some of the places I learned about in my class.

From the above table, attitudinal change could be achieved through inspiring students to, appreciate core values, resolve conflicts, demonstrate willingness, participate in activities and show interest in objects, phenomena, activity etc.

V. CONCLUSION

Bloom's Taxonomy is a convenient way to describe the degree to which we want our students to understand and use concepts, to demonstrate particular skills, and to have their values, attitudes, and interests affected. It is critical that we determine the levels of students' expertise that we are expecting them to achieve because this will determine which classroom assessment techniques are most appropriate for a course. But, there exist a culture of over dependence on the measurement of cognitive domain by teachers across all levels, leaving behind the non cognitive (affective and psychomotor) either shallowly touched or not at all. This poses great challenges among which are deficiencies in certain necessarily required attitudes and manipulative skills. Consequently, this has posed a great threat to the realization of effective economic recovery in Nigeria. For a country like Nigeria to recover its economy, there should be as a prerequisite attitudinal changes inculcated into our students through instructional processes and assessment of the affective behavior.

RECOMMENDATIONS

1. Assessment practices in school should not be lopsided. They should capture the three domains.
2. Record of the assessment should be carefully kept and it should further serve as a reference for the selection and or placement of labour.
3. Testimonial issued by schools should be based on a true picture of candidate performance in affective assessment.
4. Employees placement be based on candidate's previous records (ability, interest, attitudes, sociability etc)

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APPENDIX "A"

Course No. 1

1. What issues and practices give mercantilist writings their cohesion?
2. "David Ricardo and Malthus lived in the same house yet they were at logger head with each other on some economic issues". Identify these areas of controversy and explain them fully.
3. "Economic Tableaux and Agriculture were given pre-eminence by the physiocrats in the 17th century". Carefully explain these ideologies in relation to recent Agricultural policy of the Federal Government of Nigeria.
4. Identify and explain the major contributions of William Stanley Jevons to the marginalists Economic Thought between 1835 and 1882.
5. Do you agree that the modern system of taxation in Nigeria is akin to Gottlob Von Justi of the mercantilists? Defend this logically.
6. State and briefly explain five (5) frantic efforts made by Lord Maynard Keynes in revolutionizing the economic thinking of his time.

Course No. 2

1. a) What do you understand by a population in statistics?
   b) Give an example of a population that you might study when writing your final project.
2. a) Explain the meaning of a 'Variable' in statistics.
   b) Differentiate between a quantitative variable and qualitative (categorical) variable.
3. a) What is meant by measurement in statistics?
   b) With examples, explain the difference between ordinal and nominal variables.
4. a) Differentiate between sample frame (population) and a target population.
   b) Describe the shape of a normal curve.
5. a) Mention the three types of survey questions.
   b) Explain how a stratified random sample is selected.
6. Write short note on the following:
   i. Infinite population
   ii. Primary data
   iii. Response rate
   iv. U- sharped distribution curve
   v. Class midpoint

Course No. 3

1. List and explain the five basic principles of Administration that every school Administrator is expected to apply for effective running of his/her school.
2. Define the following terms:
   i. Administration
   ii. Organization
   iii. Structure
3. Mention three styles of leadership found in schools and explain two of them.
4. Briefly explain the function of the following terms:
   a) Communication
   b) Medium or channel of communication
   c) Message of information
   d) Sender
   e) Receiver
5. List and explain any five Administrative functions of the school Administrator.
6. Describe what is meant by decision making process and mention three process of decision making.

Course No. 4

Instruction: Answer any four (4) questions

1. A well constructed test must be valid, reliable and usable. Discuss.
2. Identify any three (3) classifications of test as classified by Sidhu (2005) and explain any two in details with relevant example (s).
3. (a) Construct a three (3) item essay test each for testing educational domains in your subject area.
   (b) Outline any five (5) systematic steps to be followed in constructing a good test.
4. Mention any four activities each expected of a test administrator that should come before, during and after the test.
5. a) State at least three (3) basic assumptions that guide item analysis.
   b) Find the facility index/difficulty index in the following cases.
   i) 120 students attempted an item and only 65 students got the item correct/right.
   ii) 30 students attempted an item and only 5 students got the item correct/right.
   d) Using at least two (2) examples, explain to your students "Discrimination Index".
6. a) Mention any four (4) forms of "grading system" used in the school system.
   b) With at least an example in each, explain any three of the " grading system".

Course No. 5

Instruction: Answer Question One and any other two question.

1. What you need to be an effective ESL teacher?
2. What are the materials required for language teaching and learning and what are their limitations?
3. Fault is categorized as error, mistake or lapse. Explain each and show how that can be recognized.
4. Discuss age, gender, aptitude and motivation as learner- centered variables.
5. Discuss any two of the following:
   (i) Grammatical syllabus
   (ii) Situational syllabus
   (iii) National syllabus

Course No. 6

Umarni Amsa tambayoyi guda hudu kacal.

1. Yi li'irabin wadannan jimloli, sannan ka dora su a kan bishiya

i) Ya yi karya a gaban jama'a
ii) Audu jahili ne
iii) Wata 'yar karamar akuya mai layu ta haihu
iv) Yahaya ya kawo mangwaro tuli-tuli
v) Makullin dakin Bashir ya fadi

2. Kawo bayani gamsasshe tare da misalai a kan wadannan:

   i) Hardaddiyar jimla
   ii) Sarkakkayir jimla
   iii) Jimla sakayau

3.Ka zayyana azuzuwan kalmomi da ake dasu a Hausa, sannan ka yi bayani a kan guda uku (3) daga cikinsu. Wadata amsarka da ingantattun misalai.

4.Rattaba bayani dalla- dalla game da abubuwan da za su fito a matsayin yankin suna a ra'ayin Galadanci.

5.Gina jimloli guda uku (3) masu dauke da dafa goshi da kuma dafa keya guda bibbiyu a yankin sunansu; sannan ka yi li'irabin kowace daga cikinsu ka kuma dora su a kan bishiya.

6. Kawo bayani mai gamsarwa a kan uku (3) daga cikin wadannan, kana mai inganta amsarka da kyawawan misalai.

i.   Aikatau
ii.   Yankin suna
iii.   Hardadden bayanau
iv.   Yankin aiki

Course No. 7

INSTRUCTION: Attempt any four (4) question only.

1   The scope of Islamic law is wider in nature. Discuss
2.   Define the word "Usu al-fiqh" literally and technically.
3.   (a) Mention the source of Islamic law.
(b) Explain in detail the primary source of Islamic law.
4.   Define "Ijtihad" and explain its position in Islamic Jurisprudence
5.   Mention and explain the factors that led to the establishment of Taqlid.
6.   The reflections of Islamic Jurisprudence can be traceable to the period of prophet Muhammad (SAW). Discuss.