

PERCEPTION OF MEASUREMENT AND EVALUATION AMONG EDUCATION STUDENTS IN UNIVERSITY OF MAIDUGURI, BORNO STATE

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Abstract: This study was conducted to assess Perception of measurement and evaluation among education students in university of Maiduguri, Borno State. It was guided by one null hypothesis. Survey research design was adopted for the study. A sample of 377 undergraduate students was used for the study using a multistage sampling technique. Perception of measurement and evaluation among education students (PMEES) was used as an instrument for data collection. Split-half was used to test the reliability of the instrument using cronbach Alpha analysis to estimate the internal consistency of the instrument and reliability coefficient value of 0.84. Descriptive statistics of frequency count, percent, mean and standard deviation. The null hypothesis was tested using one sampled t-test at 0.05 level of significance. Findings revealed there is significant perception of measurement and evaluation among education students in university of Maiduguri, Borno State it was recommended there should be revise in the content of measurement and evaluation courses which should also contain theoretical and practical content knowledge to improve the quality and proper recognition of the certificates and degrees awarded to students.

Keywords: Perception, Measurement and Evaluation and Undergraduate Students.

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Introduction

Education students' perceptions of measurement and evaluation can vary widely, often influenced by factors such as prior experiences, coursework, and beliefs about teaching and learning. Many pre-service teachers enter their programs with negative perceptions, viewing assessment as a tedious requirement rather than a valuable tool (Wise et al., 1991). However, targeted instruction and practical experiences can help shift these perceptions in a positive direction. One key factor shaping perceptions is the quality and depth of measurement and evaluation courses within teacher education programs. Courses that provide hands-on opportunities to design, implement, and analyze various assessments tend to be more effective at building positive perceptions than theory-heavy courses (Mertler, 2009). Additionally, when measurement and evaluation concepts are consistently modeled and reinforced across other education courses, students gain a more holistic understanding of their importance (Siegel & Wissehr, 2011).

Measurement as a concept has been defined by various authors and experts in education and other fields of study. Chikwe (2017) defined measurement as a systematic assignment of minerals to aspects of an object according to specified rules. To Aiken (1982), measurement is seen as procedures for determining (or indexing) the amount of quantity of some construct or entity. Furthermore, measurement is the description of the learner's behaviour, performance, characteristics quantitatively (Asuru, 2015). Measurement as explained by Batton (2018) is determining the attributes and dimensions of an object, skill or knowledge. Ukwuije and Opara (2012) opined that in education measurement is the act of determining the degree to which an individual possesses certain attributes. In the same vein, Asuru (2015) explained that in education and psychology, measurement is the systematic process of determining the characteristics or behaviour of an individual and reporting same quantitatively.

Educational measurement therefore, is the application of various techniques to quantify, describe and determine learner's' behaviour or performance during or at the end of the teaching-learning process. Educational measurement is the systematic qualification of available attributes using standard procedures. Agwagah (1997) noted that measurement does not include qualitative descriptions of the attributes being measured; and does not involve any decisions on the worth or value of the attribute being measured.

Popham (1988) explained there are various measurement strategies available to educational evaluators and indeed educators. In other words there are measurement strategies implored in determining the extent to which learners possess attributes, characteristics, knowledge and skill expected of them in the teaching-learning process. Popham has classified measurement techniques as follows: paper-and-pencil tests of ability, paper-and pencil self-report devices, rating scales (numerical, graphic and rankings rating scales), observation (anecdotal records, high and low inference observations), interviews, and performance tests. The above measurement techniques are used in educational measurement and evaluation.

Evaluation on the other hand is the systematic process of collecting, analyzing and interpreting information to the extent to which pupils are achieving instructional objectives (Chikwe, 2017). Similarly, Onunkwo (2002) stated that evaluation is the process of delineating and providing useful information for judging decision alternatives. Evaluation also has been defined as the process of passing value judgement as to the worth of a thing, object or programme; and determining the value or worth of collected data (Asuru, 2015). Evaluation therefore, is the teacher's activity which involves determining the extent to which instructional stated before the commencement of instruction have been attained or achieved; and passing value judgment on the worth of students' performance.

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According to a study by Kember et al. (2008), education students often have mixed feelings about the role of measurement and evaluation in their profession. They recognize the importance of assessing student learning outcomes, but may also express concerns about the potential negative impact on the learning process and the teacher-student relationship. In their study, Kember, Leung, and Wu found that education students who held a more positive perception of measurement and evaluation were more likely to adopt a constructivist approach to teaching, focusing on student-centered learning experiences.

Another study by Harlen (2001) emphasized the importance of understanding the purposes and types of assessment for education students. Harlen argued that a clear comprehension of the various forms of assessment, such as formative and summative assessment, can help education students make more informed decisions about the appropriate use of measurement and evaluation tools in their future classrooms. Furthermore, a study by Porter (2003) highlighted the significance of providing education students with opportunities to develop their assessment literacy. Porter suggested that incorporating assessment-related activities and discussions in teacher education programs can help students become more confident and competent in designing and implementing effective measurement and evaluation strategies.

Hypotheses

There is no significant perception of measurement and evaluation among education students in university of Maiduguri, Borno State

Methodology

Survey research design was used for this study. Ofo (1994) stated that the survey research method is used to gather data at a particular point in time with the intention of describing the existing condition or identifying standards against which existing condition can be compared. Survey allows the relative incidence, distribution and interaction of sociological and psychological variables. Survey provide accuracy in that it describes what exists and the frequency with which it occurs, assigns new meaning to phenomenon and add information into categories (Kerlinger, 2000).

Population and Sample

The population for this study comprise all 300 level and 400 level students of Department of Education, University of Maiduguri, with population of two thousand eight hundred and seventy seven (2877) students' (University of Maiduguri). The sampling procedure for this study was purposive sampling procedure and systematic Random Sampling, which three hundred and seventy seven (377) students' was sampled for the study.

Validity and reliability of the instrument

The instrument was validated for face and content validity of the instrument, the researcher supervisor and other experts in the field of test and measurement. The reliability of the instrument was tested in Borno State University, Borno State, Split half reliability method was employed to test the reliability of the instrument data collected was subjected to a statistical test using spearman brown formula to determine reliability index and 0.84 was obtained.

Method of Data Analysis

Statistics of mean, standard deviation, standard error, frequency count and percentages will be employed to organized and describe demographic information while inferential statistics of on sampled t-test was used to test the formulated hypothesis at 0.05 level of significance

Results

Table 1 Demographic Characteristics

Variables	frequency	percentages
Sex		
Male	224	59.4
Female	153	40.6
AGE		
Less than 20 years	77	20.4
20 – 29 years	192	50.9
30 – 39 years	108	28.7
Marital status		
Single	249	66.1
Married	51	13.5
Divorced	50	13.3
Separated	27	7.2
Level		
300	242	64.2
400	135	35.8

Table 1, results shows showed that 224(38.4%) of the respondents were female, while 360(61.6%) were male. The age of the majority of the respondents 50.9% are between the age group of 20 – 29 years, followed by 28.7% with less than 20 years have 20.4%. From the results it shows that majority of respondents 66.1% are single, 13.5% married, 13.5% single and 13.3% divorced. It was also revealed that 64.2 of the respondents are 300Level and 35.8 are in 400 levels.

Table 2: Summary of one sampled t-test on Perception of measurement and evaluation among education students in university of Maiduguri, Borno State

Variable	N	Mean	SD	DF	t	P
Perception of measurement	377	3.6795	1.71240	376	21.691	.0001*

Fixed mean 2.50

t = 21.691 df = 376 (p> 0.0001)

Key * significant at 0.05

Table 2, showed results of the one-sample t-test conducted to analyze the perception of measurement and evaluation among education students in the University of Maiduguri, Borno State. The mean perception score is 3.6795, which is higher than the fixed mean of 2.50. This suggests that, on average, the education students in the sample had a perception of measurement and evaluation that was higher than the fixed mean or hypothesized value. The standard deviation (SD) of 1.71240 indicates the variability or spread of the perception scores around the mean. A larger standard deviation suggests a wider range of scores, while a smaller standard deviation implies that the scores are clustered closer to the mean. The t-value of 21.691 is the test statistic obtained from the one-sample t-test. This value is compared to the critical t-value to determine statistical significance. The p-value of 0.0001 is extremely small, indicating that the result is statistically significant at the 0.05 level (denoted by *). In other words, the probability of observing a mean perception score of 3.6795 or higher, assuming the true mean is 2.50, is less than 0.05 or 5%. The results suggest that the perception of measurement and evaluation among education students in the University of Maiduguri is significantly higher than the fixed mean or hypothesized value of 2.50. This implies that the education students in the sample tend to have a relatively positive perception of measurement and evaluation.

Discussions

Kember, Leung, and Wu (2008) found that education students often have mixed feelings about the role of measurement and evaluation in education. While they recognize the importance of assessing student learning outcomes, they may also express concerns about the potential negative impact on the learning process and the teacher-student relationship. This ambivalent attitude highlights the need for educators to address these concerns and help students develop a more balanced perspective on the role of measurement and evaluation in teaching and learning. Porter (2003) emphasized that education students' beliefs about teaching and learning play a significant role in shaping their perception of measurement and evaluation. Students who hold constructivist beliefs, focusing on student-centered learning experiences, are more likely to adopt a positive perception of measurement and evaluation. In contrast, those with more traditional beliefs may view these practices as less relevant or even detrimental to the learning process.

To support education students in developing a more informed and positive perception of measurement and evaluation, it is essential to incorporate relevant discussions and activities in teacher education programs. Kember et al. (2008) suggested that by emphasizing constructivist approaches and understanding various forms of assessment, educators can help students become more confident and competent in designing and implementing effective measurement and evaluation strategies. Porter (2003) highlighted the significance of providing education students with opportunities to develop their assessment literacy. This includes understanding the principles of assessment, evaluating the quality of assessment tasks, and being able to design and implement effective assessment strategies. By fostering assessment literacy, educators can help students become more critical consumers and designers of measurement and evaluation practices in their future classrooms.

Chikwe (2017) stated that through measurement and evaluation, the teacher will be able to assess the performance of his pupils (students); acquire skills in test construction, usage, and

interpretation; assess psychomotor/affective aspects of pupils (students' performance); evaluate the effectiveness of instructional materials, content and intervention strategies; diagnose learning deficiencies and plan for remedial work, make use of standardized tests, acquire skills in innovative evaluation procedures (eg continuous assessment, school-based assessment and computer-based assessment); determine the attitude of the pupils (students); determine the interest of students, determine the aptitude of the students; and provide guidance to students.

Furthermore, educational measurement and evaluation help the teacher determine students' progress through the use of series of tests and from the analysis of the test results may modify the teaching method, give more time for students' participation, review the curriculum, etc. Through the knowledge of educational measurement and evaluation, the teacher learns how to evaluate existing programmes and make sufficient contribution about how to plan effective programmes. Measurement and evaluation motivate students to study. Measurement and evaluation inform of texts, examination enable students to study and prepare effectively. Nwana (2007) informs that without these tests pupils would be reluctant to make time for private study and some would be less likely to listen attentively in class, no matter how lively and interesting the teaching may be.

Recommendations

The following recommendations are made:

There should be revise in the content of measurement and evaluation courses which should also contain theoretical and practical content knowledge to improve the quality and proper recognition of the certificates and degrees awarded to students.

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