

## EDUCATIONAL MEASUREMENT AND EVALUATION AND ITS IMPACT ON EDUCATION, NOW AND IN THE FUTURE

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### Abstract

*Educational measurement and evaluation are inevitable in the teaching-learning process, especially now that the academic assessment of students is becoming technologically advanced. It plays a significant role in various school programmes, especially in teaching-learning. Its fundamental usefulness is in curriculum development, programme instruction, marking and reporting, guidance and counselling, administration of the school, and research. This paper examines the concept of education, the concept of measurement and evaluation, and the impact of educational measurement and evaluation on education now and in the future. Based on*

*the paramount importance of measurement and evaluation in education, it was recommended that efforts be made to organize workshops, seminars, and in-service training on sound practices in measurement and evaluation for teachers of measurement and evaluation. Government at all levels should provide financial support to institutions of higher learning to train teachers in measurement and evaluation on modern techniques of handling evaluation of learners, and effort should be made to incorporate measurement and evaluators in school administration in terms of monitoring of the teaching-learning process to ensure a high-quality standard of certification of students.*

**Keywords:** Education, Measurement, Evaluation, and Impact

### Introduction

Education of a human being is, perhaps, the most cherished goal of any human civilization that ever existed. The human being is an embodiment of rich inherent abilities, and education's task is to help them develop, enhance, and achieve these abilities. One of the obvious features of education is that it relates to some process in which a desirable state of mind is developed. It would be contradictory to say that a person has been educated, yet the change was in no way desirable. Education emphasizes the orientation to achieve the social goals of an individual. A student is a device whose workings could be deliberately regulated from outside. He would not grow or develop according to some internal dynamic. Rather. His behaviour would be modified or shaped to approach some desirable end.

Measurement and evaluation are important aspects of the teaching-learning process. Teaching and learning cannot be complete without measurement and evaluation, and the extent to which instructional objectives are attained is achieved through measurement and evaluation. Hence, the essence of teaching and learning is to determine whether learners have mastered the competencies, skills, knowledge, and abilities required at any level of education to enable them to progress and contribute to societal development (Chikwe, 2021).

Educational measurement and evaluation are conceptual terms used in education to elucidate how the progression of learning and final learning outcomes of students are evaluated (Adom, Adu-Mensah & Dake, 2020). Educational measurement and evaluation are inevitable in teaching and learning, especially now that the academic assessment of students is becoming technologically advanced. It plays a significant role in various school programmes, especially in teaching-learning. Its fundamental usefulness is in curriculum development, programme

instructions, marking and reporting, guidance and counselling, administration of the school, and research. Therefore, this paper examines educational measurement and evaluation and its impact on education, now and in the future.

### **Concept of Education**

Education is a planned and regulated process of continuously transferring socially significant experiences from the present generation to the next (Aslanbek, 2017). Education is the process of development in individuals, institutions, and societies. Education is a means of achieving the total development of man to bring about desired changes in every area of human endeavour. It is the process of imparting knowledge that has been greatly used to enhance the standard of living of individuals and societies. Hence, education is an instrument of excellence. Without education, the improvement in every aspect of life today would be a mirage. Education can be formal, informal, and non-formal. Whichever form of education is received, it has helped bring out potential embedded in human beings. Therefore, any society that neglects education has destroyed generations unborn, and society will lag in the current realities of global living. The extent to which education or learning occurs is achieved through measurement and evaluation in the formal educational system (Chikwe, 2021). Education equips learners with a sense of purpose and the competencies they need to shape their own lives and contribute to the lives of others (Organisation for Economic Co-operation and Development, 2018).

### **Concept of Measurement and Evaluation**

Measurement is a process of assigning numerical figures to explain features of characteristics, objects, events, phenomena, and persons in a systematic manner. It is the process of gathering data to monitor students' progress and possibly intervene should the need arise. Measurement is undertaken to quantify the level of knowledge or skills a learner acquires. The concern of measurement is with applying its findings and the effectiveness or desirability of a product, process, or progress following a set of acceptable goals or values.

However, evaluation is the process of making value judgments. It can also be seen as making decisions about events, objects, or characteristics. Such judgments or decisions are based on empirical information presented through measurement (Nworgu, 2003). Nworgu further stated that evaluation is used in a broader sense to mean a process of seeking, obtaining, and quantifying information to make value judgments about persons, objects, events, or their characteristics. However, evaluation can also be conceived as a systematic process of determining the extent to which instructional objectives have been achieved. Evaluation deals with the procedures employed to determine whether the learner meets a preset criterion. According to Howard and Donaghue, as cited by Yambi (2020), evaluation refers to the process used to ascertain the merit, worth, or value of a process or the product of the process. It is a periodic process of gathering information, analyzing or organizing it so that the resulting information can be used to determine the effectiveness of a programme and the extent to which it is achieving its stated objectives and anticipated results.

Nevertheless, measurement and evaluation are recognized as a scientific process to determine what can be known about learners' performance capabilities and how these are best

measured. Evaluation is concerned with issues of validity, accuracy, reliability, analysis, and reporting. Therefore, evaluation is conceived as the systematic gathering of data for decision-making, using both quantitative methods (tests) and qualitative methods (observations, ratings, and value judgments) to judge the gathered information (Yambi, 2020).

However, many forms of evaluation include formative, placement, diagnostic, and summative evaluation. Formative evaluation is conducted during an educational program's planning and designing phase. This is done by asking for immediate feedback for the programme to modify and improve should the need arise. It is ongoing and helps to determine a given program's strengths and weaknesses. Formative evaluation is described as an in-process evaluation of student learning. It is often administered during a unit, course, or academic programme. Placement evaluation focuses on the learners' entry behaviour. It happens before an instructional programme begins to evaluate the student's readiness or entry behaviour in a sequence of instructions to place them accordingly. The diagnostic evaluation focuses on the learner's ongoing learning difficulties during formative evaluation. It is also used to determine the suitability or readiness of candidates for a particular programme or training. The diagnostic evaluation aims to examine if students have mastered or developed proficiency in the basic skills needed to study a subject successfully. Summative evaluation deals with the evaluation of an already completed programme. This type of evaluation is carried out at the end of a course and can be used to determine whether students have mastered the course objectives.

Simply put, it is the kind of evaluation that summarises the strengths and weaknesses of a programme. The major aim of summative evaluation is determining the effectiveness of the teaching and learning process and deciding to modify, continue or terminate the process or programme. Further, results from summative evaluations are used for promotion, certification, and award of honours and degrees (Chikwe, 2021).

The purpose of evaluation in education is to make reliable decisions concerning educational planning, ascertaining the worth of time, and identifying students' growth or otherwise in acquiring desirable knowledge, skills, attitudes, and societal values. It enables teachers to determine the efficacy of their instructional methods and learning materials and motivate learners to discover their progress in accomplishing a task (Adom, Adu-Mensah & Dake, 2020).

### **Impact of Measurement and Evaluation on Education, Now and in the Future**

The significance of measurement and evaluation in teaching-learning cannot be overemphasized. According to Chikwe (2017), measurement and evaluation have served many purposes in teaching-learning, education, and human endeavour. According to Mehrens and Lehman, as cited by Nwogu (2003), the functions of measurement and evaluation are classified into four categories: inter-alia.

1. Instructional functions
2. Administrative function
3. Guidance function
4. Research function

The instruction functions relate to how measurement and evaluation have helped improve the teaching-learning process's effectiveness. Every effective teacher aims to effect positive changes in the learner's behavior. The teacher can achieve these by determining the entry behaviour of the students, setting realistic behavioural objectives, ascertaining the extent to which the instructional objectives have been achieved, and getting feedback on the effectiveness of the teachers' instructional methods and materials vis-a-vis identifying students' strengths and weaknesses. Chikwe (2017) asserted that through measurement and evaluation, the teacher would be able to assess the performance of his learners, acquire skills in test construction, usage, and interpretation, and assess learners' cognitive, affective, and psychomotor aspects.

The administrative functions of measurement and evaluation relate to how it has helped the school administrators to make decisions regarding activities that influence the school in its entities. Measurement and evaluation help the school administrator in terms of selection (accepting and rejecting a candidate), classification of students in a particular programme, curriculum planning, and certification.

In terms of guidance functions, through measurement and evaluation, necessary information can be obtained for guiding a learner towards proper educational or academic development, choosing a vocational or occupational career, and proper socio-personal development. Measurement and evaluation play a significant role in research. Research deals with the collection, analysis, and interpretation of data. All these aspects of research involve the use of measurement and evaluation (Nworgu, 2003).

Through measurement and evaluation, students with learning disabilities and handicaps can be identified. Without proper evaluation, problems can go unrecognized for years. Measurement and evaluation are relevant in determining students' progress. It will be difficult to determine if students are making any progress in the teaching-learning process without measurement and evaluation. The feedback from tests and assignments can tell the teacher students' knowledge of the materials learned. Measurement and evaluation have different functions, including instructional, administrative, guidance, and research. In instructional function, measurement and evaluation help the teacher clarify the instructional objectives during the instruction planning and also enable the teacher to set realistic and attainable instructional objectives. Chikwe (2021) opined that students' progress, achievement, abilities, aptitudes, competencies, skills, and efforts cannot be ascertained without measurement and evaluation. Also, measurement and evaluation are relevant to the teaching-learning process and serve administrative, guidance, research functions, and other functions.

### **Conclusion**

The measurement and Evaluation programme is very useful for teachers, students, and parents in education to check academics or the level of learners' ability. The measurement and evaluation process are paramount for determining learners' academic achievement, diagnosis, prescription, improvement, classification, grading, and motivational purpose and are also helpful for predicting learners' future performance.

### **Recommendation**

The following recommendations were made based on the importance of measurement and evaluation in education.

1. Efforts should be made to organize workshops, seminars, and in-service training on sound practices in measurement and evaluation for teachers of measurement and evaluation.
2. Government at all levels should provide financial support to institutions of higher learning to train teachers in measurement and evaluation on modern techniques of handling evaluation of learners.
3. Efforts should be made to incorporate measurement and evaluators in school administration to monitor the teaching-learning process to ensure a high-quality standard of certification of students.

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