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TOPIC:

DIAGNOSTIC ASSESSMENT – A TOOL FOR QUALITY CONTROL IN EDUCATION
UNIVERSITY OF JOS, NIGERIA
INTRODUCTION

• Human resources (knowledge, skills and abilities) are indispensable in the onerous task of national development. These attributes are achieved through quality education and the youth are crucial for the manpower development to achieve national goals.
STATEMENT OF THE PROBLEM

- The poor performances recorded each year in the standardized examinations at the secondary school level

- Increase in the number of unemployable Nigerian graduates is a reflection of the falling standard of education in the country.
STATEMENT OF THE PROBLEM CONT'D.

➢ Dissatisfaction with the quality of graduates being turned out in Nigerian tertiary institutions

➢ Nigerian graduates lack the requisite skills in their chosen fields.

Especially those that had their secondary school education from 1999 till date when strikes and corruption have...
PURPOSE

• Therefore, there is the need to integrate a quality control mechanism in the teaching and learning process in ensuring that quality school leavers and graduates are produced using diagnostic assessment (DA).
PURPOSE

• This will help in identifying students’ learning difficulties for teachers to take remediation measures before they are engaged in any standardized test or certification. According to the words of a quality expert Deming (as cited in Nevkar & Hime, 2005) that quality is not just inspected in a product, but built in it.
SUMMARY OF PURPOSE

• This paper therefore examines the concept of quality control and diagnostic assessment. It also discusses the use of DA for quality control in education, provides a framework for carrying out diagnostic assessment and suggests models for conducting diagnostic assessment. Finally, it identifies challenges and made suggestions on the way forward.
Concept of Quality Control

- Quality is defined as the attributes that determine whether something is good or bad (Longman Dictionary of Contemporary English, 2007). It is about the standard of something when compared with other related things. Amen, Odusami and Ige (2002) pointed out that quality is the concept used to sum up those characteristics, which together make a product acceptable to the users.
Concept of Quality Control

- From the aforementioned, the characteristics of the concept quality control are synonymous with educational diagnostic assessment, which identifies students’ learning difficulties, errors and misconceptions about what they have already learnt for remediation measures since students can also be made to unlearn.
Concept of Diagnostic Assessment

- Diagnostic assessment involves the gathering and careful evaluation of detailed data to diagnose strengths and areas of need in all students in a given learning area (Department of Education, 2013).

This helps in the following ways:

- assist teachers to plan for appropriate pedagogy and targeted learning to more effectively scaffolding the learning needs of their students
- identifying and remedying learning difficulties, errors and misconceptions which formative assessment could not correct
- taking action to adjust teaching, and it plays a significant role in improving learning outcomes for all students.
- assesses what the learner already knows, the nature of difficulties that he/she has, which if undiagnosed might limit their engagement in new learning.
- involves making judgments as to how a student is performing against a predetermined set of criteria.
How DA assists teachers to gain
Barr, Blachowicz, Katz, and kaufman (2013), outlined the principles of diagnosis as follows:

• Principle 1. Diagnosis is a decision-making process.
• Principle 2. Diagnosis considers the whole child.
• Principle 3. Diagnosis is thorough and balanced.
Barr, Blachowicz, Katz, and kaufman (2013), outlined the principles of diagnosis as follows (contd).

• Principle 4. Diagnosis is a team effort.

• Principle 5. Effective communication is essential in diagnosis.

• Principle 6. Diagnosis and remediation go hand in hand.
The different forms of diagnostic assessment identified by Patti (2012) are:

- Journal
- Student Self-Assessments
- Quiz/test
- Poster
- Performance Task
- Student Survey
- Formal Assessment
- KWL (stands for what the students already known, want to know, and ultimately learn). (Pati 2012). etc
Interaction between D and A
Importance of Using Diagnostic Assessment for Quality Control in Education

It provides:

• quality control measures by assessing learners’ strength and weaknesses for remediation

• useful information on students learning difficulties.

• useful feedback to both the teacher and the learner
Framework for using Diagnostic Assessment for Quality Control

• Specify learning goals and objectives
• Plan classroom instruction & assessment
• Deliver instruction and embed PALD cycles to identify learners gaps
• Administer end-of-unit assessment for summative decision-making at the end of an instructional cycle and move to a new unit of instruction
Models for Diagnostic Assessment for Quality Control in Education

• Item Response Theory (IRT)

• Empowerment Evaluation model- “helping people to help themselves”

• The CIPP Model will be more useful as it takes in to consideration the context, input, process and the product of the education system as stated in the UNESCO’S’S diagnosis framework (GEQAF).
CIPP Model

Context, Input, Process, Product (CIPP) Evaluation Model

- **Goals**
  - Beneficiaries
  - Needs
  - Resources
  - Problems
  - Background
  - Environment

- **Plans**
  - Stakeholders
  - Strategies
  - Budget
  - Coverage
  - Research

- **Outcomes**
  - Impact
  - Effectiveness
  - Transportability
  - Sustainability
  - Adjustment

- **Actions**
  - Develop
  - Implement
  - Monitor
  - Feedback

Challenges of Use of Diagnostic Assessment for Quality Control in Education

• Large class size with many arms.
• Non-inclusion of diagnostic assessment in the: scheme of work curriculum schools’ academic calendar.
• Lack of motivation of teachers on the part of government and other employers
Suggestions

• Government should employ more and qualified teachers to reduce the ratio of teacher to students

• Provision should be made in the scheme of work, curriculum and schools’ academic calendar for diagnostic assessment.

• Government and other employers in education sector should place the welfare of teachers as priority
Conclusion

• It is believed that integrating DA in the teaching/learning process would improve students’ comprehension level, reduces their errors, misconceptions and provide timely mediation measures in achieving learning outcomes.

• It would also lead to reduction in the failure rate in both summative tests and standardized examinations thereby improving the quality of education in the country in general.
REMEMBER!

• Quality human resources are the engines of development of any nation.


Fahad, U. (n.d.). *Quality assurance vs quality control.* Retrieved from; pmstudycircle.com


References Contd.

- Phlosophe.com/testing/9c/.