Utilization of Learning Assessment Data in Decision Making: Practices and a Review of the Evidence
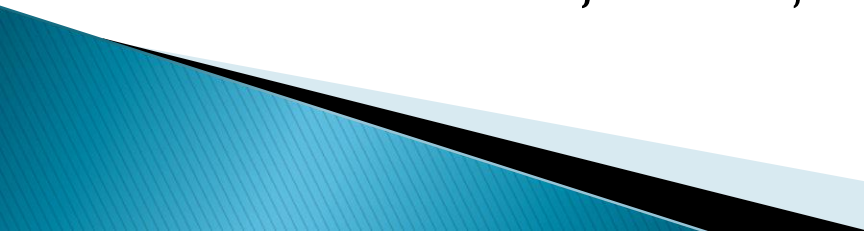
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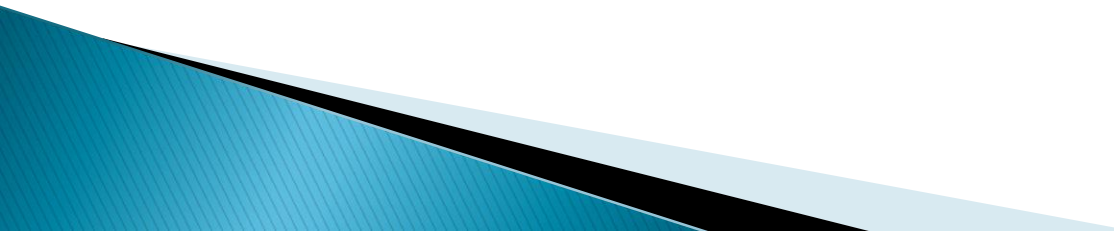npm.esomonu@unizik.edu.ng nkechipmesomonu@gmail.com +2348025422569
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Introduction

- Data are making an impact on every sector across every industry on a global scale.

- Solutions to social and economic problems are often inseparable from the statistics (assessment data) (Beguy, 2016).

- Thus education system must capture accurate, timely, disaggregated, widely available and comparable assessment data that will link inputs to outputs and outcomes (Custer, King, Antic, Read &Sethi, 2018; Beguy, 2016).
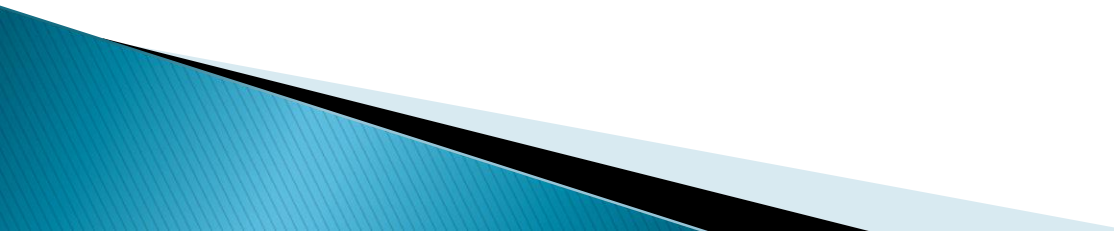
Assessement

▸ Assessment refers to the process of deciding, collecting and making judgments about evidence relating to students' achievement of particular goals of learning.

▸ Consequently, assessment encompasses classroom-based assessments as well as large-scale external tests and examinations.

Assessment Data

Assessment data are:
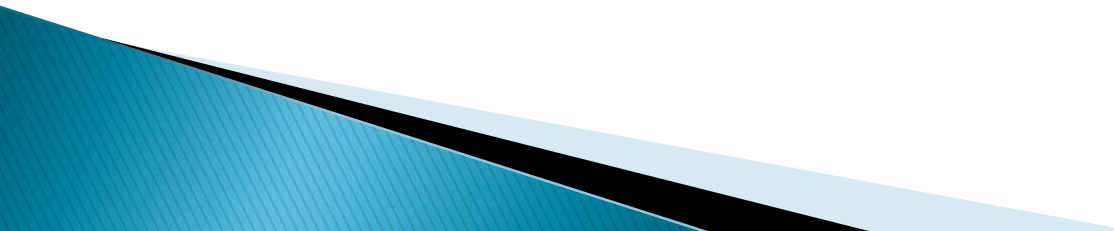- learning outcomes, grades, scores or results from various types of educational assessments;

- formative classroom assessment, classroom tests, state and local tests;

- school entrance and placement practices scores, tests for teacher certification, internal and external examinations;

- It can be in the form of numbers, images, words, figures, facts or ideas.

Assessment Data Utilization

- are situations where assessment information are received and applied by decision makers for decision-making analysis.

- in education setting aimed at using evidence of what students learn to improve curriculum, student learning, and teaching.

Decision-Making

Decision-making is operationalized as:

- finding occasions for taking decisions,
- finding possible courses of action,
- selecting among courses of action and assessing past choices.
- is the point at which plans, policies and objectives are translated into concrete actions (Appleby, 1994; National Research Council, 2010).

Aim and Research Questions

- The aim of the review study is to identify gaps in the literature and to eventually focus on relevant research topics that will contribute to the knowledge of how learning assessment data is used in decision making. The present review raises two research questions:
- To what degree are learning assessment data generated in Nigeria?
- To what extent are learning assessment data utilized in decision making?

Method

- The review study was guided by the questions from Hallingers' conceptual framework for conducting research reviews (Hallinger, 2013) as statedbelow.
- **1.Central topics** – Already stated
- **2.Research Questions** –Already stated
- **3. Goals**
- **Application in the present study:** the review is to gather and synthesize the literature to better understand and provide an overview of what is currently done about the use of learning assessment data in decision making for Nigeria.

Method Contd.

- 4. **Conceptual perspective**

- **Application in the present study:** The present review was done by combing different literature on learning assessment data utilization in decision making: the generation of learning assessment data and decision making based on the generated data.
- This review considers the following concepts: learning assessment data creation, utilization of learning assessment data in decision making, and evidence from local practices on use of learning assessment data in decision making.
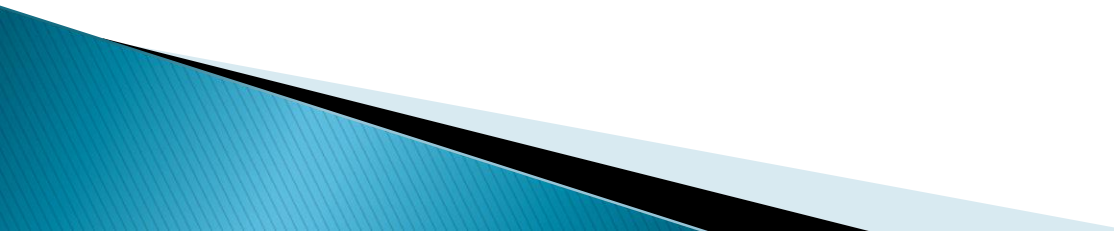
Method Contd

- 5. **Sources and types of data**
- **Application in the present study:** In the present review, several search engines and databases like Google Scholarand ERIC (Educational Resource Information Centre) were searched so as to select appropriate studies.
- Over 500 abstracts and introduction originating from peer-reviewed journals were perused, using the below mentioned criteria for inclusion and exclusion. The reference sections of all included studies were searched for more relevant studies as well. Finally, 33 studies that met our criteria were selected to answer the two interrelated research questions of the present review.

Method Conted

- 6.Nature of data evaluation and analysis
- **Application in the present study:** The following selection criteria for inclusion were determined:
- (1) predominantly focusing on: assessment data or learning assessment outcome and its utilization in decision making;
- (2) recent articles: the searches were limited to articles published between 2009 and 2019;
- The answer to research question 1 provides an overview of learning assessment data creation in Nigeria in an educational setting.
- (3)articles originating from peer-reviewed journals considering research in assessment data and its use in decision for an educational setting and arelikely to yield evidence that is relevant to the review questions.
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- The following criteria for exclusion were also determined:
- (1) predominantly focusing on non-learning assessment data;
- (2) predominantly focusing on non-use of learning assessment data in decision making;
- (3) studies originating from non-Nigeria setting;
- (4) studies evaluating outcomes of non-education sectors;
- (5) solely reporting about research methods, research models or the use of measurement scales;
- (6) absence of a clear definition of learning assessment data and decision making.

Method Conted

- 7. **Major results**.
- **Application in the present study**: 1) An insight in the learning assessment data creation in Nigeria.
- (2) An indication of the extent of learning assessment data utilization in decision making.
- (3) An overview of the gap in the research field of learning assessment data utilization in decision making.

Findings of review

Table 1: Overview of hits and selected articles per main search words per database.

Research Questions/ Search Phrases	Google scholar			Eric		
RQ1. To what degree is LAD generated in Nigeria?	Hits	Scanned	Selected	Hits	Scanned	Selected
-Degree of LAD in Nigeria	1, 068, 000	3 0	3	22, 000	31	2
-LAD availability in Nigeria	9, 800, 000	30	2	900	30	1
Creation of LAD in Nigeria	4, 000, 000	32	2	55, 400	32	1
Snowballing			1			
RQ2. To what extent is assessment data utilized in decision making?						
-LAD availability and utilization in decision making in Nigeria	13, 200	33	5	801	30	1
-Toward data-driven education system –Nigeria	8, 940, 000	42	3	1, 340	21	2
The extent existing policy is informed by evidence from LAD	9, 190, 000	33	2	1, 097	30	1
-LAD influence in decision making-Nigeria	13, 000, 000	40	2	340	20	1
-LAD and evidence based decision making	12, 400, 000	35	2	398	31	1
Snowballing			2			

LAD= Learning Assessment Data

Summary of Findings from Review

▸ The answer to the research questions reveals to the fact that there is rare/little published evidence on the use of learning assessment data in decision making, it currently gets limited attention in Nigeria.

Local Practices

The local practices on the degree of learning assessment data generated in Nigeria is answered by the data collected by Esomonu, Esomonu & Eleje, (2018).
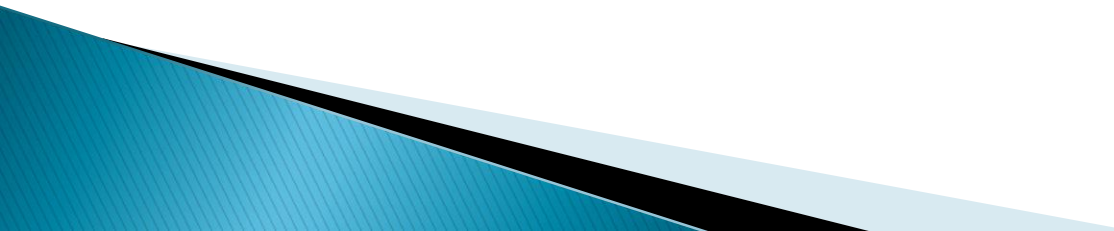
Sources of Assessment Data from Secondary School students

- Internal Examinations and Assessment
- e-feedback of students evaluation
- On-line end of term results of students
- Teacher-made formative test scores
- Performance test indicator from classroom assessment technique

Table 2:Students Examination Results in West African School Certificate Examination

S/N	YEAR	No. of students that participated in the exam	No. of scores in 9 subjects a student must register for
1.	2009	1,373,009	12,357,081
2.	2010	1,351,557	12,164,013
3.	2011	1,540,250	13,862,250
4.	2012	1,675,224	15,077,016
5.	2013	1,543,683	13,893,147
6.	2014	1,692,435	15,231,915
7.	2015	1,593,442	14,340,978
8.	2016	1,544,234	13,898,106
9.	2017	1,559,162	14,043,600
10.	2018	1,560,400	14,043,600
TOTAL		**15,433,396**	**138,900,564**

Sources of Assessment Data from Universities
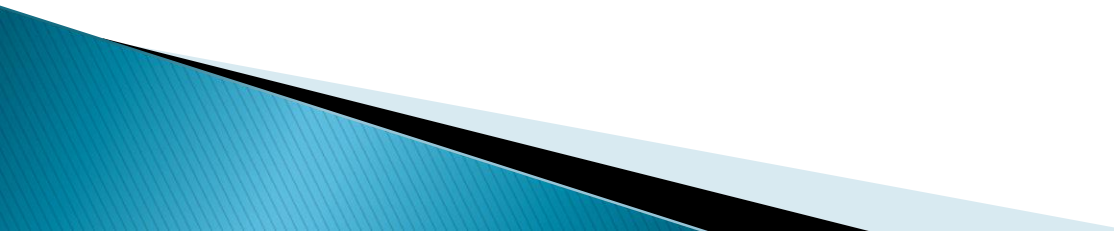
- Application forms
- Qualifying examination by some universities
- Registration data from admitted students
- Course work results
- Seminars
- Projects
- Theses
- Dissertations

Major Use of Assessment Data

Assessment Data are used:
.progression
. placement
. Certification
. the present emphasis on entrepreneurial skill in Nigeria is as a result of assessment of performance of graduates in industries

Conclusion

▸ Based on this review study, the researchers found out that there is limited information as to the extent to which assessment data influence decision making or utilized in Nigeria. With scarce and sporadic availability of basic learning assessment data in Nigeria, education decision-makers seldom view evidence as the decisive factor when considering the merits of policy decisions.

Recommendations

- For monitoring of learning assessments to move beyond the rudimentary level there is need for cooperation and coordination of efforts between the various levels and agencies of the Federal Ministry of Education on the one hand and the international development partners on the other hand. This will ensure that assessment data/results are comparable and trends easily charted
- Publication of activities in assessment data is important to tract records for improvement