



Teachers' Assessment Literacy and Classrooms Practices in Secondary Schools in Akwa Ibom State, Nigeria

Evans, G. U., Uko, M. P., & Akpan G. S

Department of Educational Foundations, Akwa Ibom State College of Education, Afaha Nsit
evansgloryu@gmail.com

Abstract

Assessment literacy is a critical competency for educators, encompassing knowledge and competency to design, implement, interpret and effectively use assessment to enhance students' learning. The study seeks to investigate assessment literacy and its impact on classroom practices in order to fill a significant gap in understanding how different contextual factors of assessment literacy influence classroom practices. The study employed a survey research design, with a population of 2,580 teachers and 350 principals, from which study samples of 300 teachers and 30 principals were selected using stratified, random and purposive sampling techniques. A structured questionnaire, interview schedule and observation checklist were deployed to collect data. Instrument validity was ensured by comprehensively incorporating all the study variables and input from assessment specialists. The reliability of the instrument was determined by the test-retest method, and correlation coefficients that ranged between 0.78 and 0.81 were obtained. Data were analysed using Pearson's Product-Moment Correlations and Multiple Linear Regressions. The results highlight the positive impact of teaching skills and assessment competencies on students' outcomes. These findings underscore the need for teachers' assessment competencies to be enhanced through in-service courses, review tests and measurements curriculum, professional development programmes and policy initiatives to support educators in building their assessment literacy, ultimately leading to a more responsive and effective educational system.

Keywords: Teacher, Assessment Literacy, Education, Classroom and Mathematics

Introduction

In education, assessing students' performance is a critical component that can significantly influence the outcome of teaching and learning. Assessment literacy mainly defines the level of knowledge, understanding, and competency an educator has in implementing assessment principles and practices to determine instructional effectiveness. This plays a pivotal role in shaping classroom practices and educational outcomes. In broad terms, assessment literacy encompasses a wide variety of competencies associated with teaching and learning, including the ability to initiate, design, construct, implement and interpret various assessment tools; understanding of assessment data; and application of assessment results to inform instructional decisions (Evans *et al.*, 2019a). Therefore, teachers with high assessment literacy levels are better equipped to align their teaching and assessment methods with students' needs to enhance learning outcomes. This is especially true in secondary schools, where transitioning from basic education to higher levels of learning places greater demands on both students and educators. Teachers'

literacy in assessment has been a priority in education policy implementation and educational research agenda for decades (Mertler, 2003; Lanier, 2014; Al-Malki & Weir, 2014; Evans *et al.*, 2022), yet the challenges of assessment literacy among teachers still persist.

Assessment literacy helps to quantify and understand the instructional impact on learners (Pastore & Andrade, 2019). It identifies learners' needs, which include the need for extra support or challenges and areas where interventions are needed (Will *et al.*, 2019), and provides feedback to stakeholders such as learners, parents, teachers, and policymakers. Assessment literacy can chaperone the redesign of learning goals and instructions (Alkharusi, 2011; Mellati & Khademi, 2018). Therefore, assessment literacy is strategic in educational systems, forming the core principle underlying curricula and teachers' professionalism. For instance, proper assessment procedures in a classroom are expected to enhance the meeting of instructional goals. Like every other country's education system, the Nigerian system of education places a premium on educators' competence in handling different forms of assessment (Evans *et al.*, 2021). Teachers should be able to construct and implement valid and reliable assessments so that the output will not be misleading during decision-making. Classroom assessment outputs are meant to provide information that could aid the selection of appropriate educational instruction that is learner-centred (Beziat & Coleman, 2015). This could be achieved through engaging in continuous professional development to upgrade knowledge on the latest educational research, best practices, and evolving technology.

The vital components of teachers' literacy assessment which could aid teaching and learning include understanding assessment types, designing valid and reliable assessments, creating fair and equitable assessments, interpreting assessment data, aligning assessments with learning objectives, providing effective feedback, ethical use of assessments and professional development on assessment tools. These components could collectively contribute to teachers' ability to create a supportive learning environment where assessments are used to enhance student learning and improve instructional effectiveness. In addition, teachers require knowledge, professional values and competencies to understand and adhere to ethical guidelines in assessment practices, including maintaining confidentiality and using assessments appropriately (Asim *et al.*, 2019).

In designing assessments, it is important to ensure that assessment items measure what they are meant to measure and produce consistent results over time and across different populations (Adodo, 2014; Looney *et al.*, 2017; Asim *et al.*, 2019). The data generated from assessments need to be analysed to understand students' true performances and to obtain data-driven results that could be used to make informed decisions and adjust teaching strategies and interventions (Evans *et al.*, 2020a; Evans *et al.*, 2020b). In ensuring the quality of assessments, there is a need to align assessments directly with the learning goals and objectives of the curriculum of a programme in order to complement classroom instruction to enhance performance (Brink & Bartz, 2017; Nkealah, 2019; Mellati & Khademi, 2018).

It is not just sufficient to equipped schools with modern educational facilities, teachers need to be versed to monitor students' learning and provide adequate feedbacks that could be deployed to improve instruction; measure students learning at the end of an instructional period and compare it against a benchmark (Mellati & khademi, 2018; Evans & Thompson, 2019; Asim *et al.*, 2019; Evans *et al.*, 2020). Assessment provides teachers with information on classroom performance, including the challenges students face and how or what they can do to make teaching more effective. Therefore, it is not enough to assess students or to generate evidence of their learning; feedback on classroom performance is necessary. Such feedback should be valid,

motivation-oriented, and constructive (Florez, 2015; Black & Wiliam, 2018; Reynolds, 2021; Roberts *et al.*, 2021). Constructive feedback enables students to see their learning gaps or mistakes and to understand where they are in the learning process, where they ought to be, and how to get to the desired level of learning attainment (Muskin, 2017). The feedback that is not constructive focuses more on students' shortfalls or mistakes and can demotivate rather than motivate them. For effective assessment practice, teachers need to understand the concepts, types, principles, and different methods or techniques of assessment. Therefore, assessment becomes a leading force in education, it is projected as a powerful tool for operational policies in schools and fundamental component of teachers' instructional practices in the interest of students' performance improvement (Dinther *et. al.*, 2015; Torres & Weiner, 2018; Mouraz *et al.*, 2019; Allal, 2020; Brown, 2022; Evans *et al.*, 2023).

The focus of this study is on secondary schools in Akwa Ibom, located in the Niger Delta in southern region of Nigeria. With its diverse cultural and socio-economic landscape, Akwa Ibom State presents a unique context for examining the interplay between teachers' assessment literacy and classroom practices. In this region, educational stakeholders have increasing concerns about the quality of education, with particular attention paid to classroom practices in secondary schools. This study aims to investigate the current state of teachers' assessment literacy in Akwa Ibom State secondary schools and explore how this literacy influences classroom practices. By examining the connections between assessment literacy and classroom practices, significant gaps in understanding how different contextual factors of assessment literacy interplay with classroom practices would be bridged. In addition, helpful information that can ultimately aid the improvement in the quality of education would be available to stakeholders.

Classroom Practices

Classroom practices are teachers' strategies, methods and activities to manage and facilitate classroom learning. Classroom practice encompasses many school-based instructional techniques and classroom management strategies designed to create an effective learning environment and improve learning outcomes. Therefore, effective classroom practices should create a positive and productive learning environment, foster learners' engagement, and improve educational outcomes enshrined in assessment records. In dealing with classroom practices, various contextual factors of assessment literacy must be harnessed and addressed. These contextual factors are instructional strategies, classroom management, assessment practices, engagement techniques, use of resources, professional development, student-centred approaches, feedback and reflection (Earl, 2013; Frey, 2014; Tong & Adamson, 2015; Ezeokoli, 2016; Evans *et al.*, 2023).

Instructional Strategies: Direct instruction is teaching in a straightforward, explicit manner, often using lectures or demonstrations to impart knowledge to the learners. However, using collaborative learning to encourage students to work together in groups to solve problems and complete tasks is much welcome. In addition, differentiated instruction can also be adopted by tailoring teaching methods and materials to meet the diverse needs of students. In this strategy, instructions are adapted to meet each student's unique needs, strengths, and interests. In addition, instructional strategy can be reinforced by the use of project-based learning, which deploys real-world projects and problems to engage students in deeper learning. This is evolving, especially in developing countries (Frey, 2014; Anikweze, 2014; Tong & Adamson, 2015).

Classroom Management includes setting clear, communicating rules and expectations for behaviour, positive reinforcement using praise and rewards to encourage desired behaviours and achievements, and behavioural interventions in implementing strategies to address and correct

disruptive or inappropriate behaviours. Classroom management is an institutional variable that can strongly affect secondary school effectiveness (Evans *et al.*, 2023).

Assessment Practices: Classroom assessment practices could be formative assessments where informal assessments and feedback during instruction are deployed to monitor students' progress and guide teaching. Secondly, assessment practice could be summative assessments conducted as formal assessments at the end of a unit or term to evaluate students' learning. Lastly, assessment can take the form of self and peer, aimed at encouraging students to assess their own work and the work of their peers to develop critical thinking skills (Garrison & Ehringhaus, 2013; Tong & Adamson, 2015; Yan & Cheng, 2015; Lingam & Lingam, 2016; Evans *et al.*, 2023).

Classroom Engagement Techniques incorporate hands-on activities, discussions, and technology to engage students in learning. They also involve open-ended and thought-provoking questions to stimulate critical thinking and class participation, as well as incorporating students' cultural backgrounds and experiences into the curriculum and classroom activities (Yan & Cheng, 2015; Evans *et al.*, 2019b; Evans *et al.*, 2020c).

Scaffolding as Classroom Practices: Providing support and gradually removing it as students become more proficient in a skill or concept. This could involve technology integration, where digital tools and resources are engaged to enhance learning and facilitate interactive lessons. Manipulatives and visual aids using physical objects and visual tools to support understanding of complex concepts can be deployed to enhance students' proficiency. This helps students conceptualise their environment (Khusna & Heryaningsih 2018; Evans *et al.*, 2023).

Teachers' Assessment Literacy and Students' Academic Achievement

Assessment has long been regarded as a key component for monitoring the quality of education across various institutions. As understanding of education changes over time, so do the tools and roles played by assessment changes. This change causes a paradigm shift from acquiring knowledge in the teacher-dominated and didactic process to creating knowledge in a dialogue and digitally mediated process (Klenowski & Smith, 2014; Evans *et al.*, 2019b). For example, there has been a shift from summative to formative assessment due to the need to make the classroom more learner-centered (Lindström, 2005, as cited in Lindqvist & Shuja, 2013; Evans *et al.*, 2019b). Teachers' assessment literacy to enhance students' academic achievement involves identifying, gathering and interpreting information on students to establish the extent to which students have acquired the expected mastery of instructions and evince satisfaction. The essence of classroom assessment is to link students' performance to the learning and teaching process. Teachers can make this link by matching test items to instructional objectives, then use the test results as helpful feedback to make further decisions on classroom operations. An assessment-literate teacher can interpret data generated from students' assessments to make valuable modifications to teaching methods and assessment tools to improve students' learning outcomes. In addition, assessment-literate teachers should be able to discuss students' assessment outcomes with others regarding the key concept of the assessment items (Salwa, 2013).

According to the National Task Force on Assessment (2016), teachers' assessment competencies have different levels of impact on students' academic achievement. Keyworth *et al.* (2012) studied the impact of teachers' competency on students' achievement. They contend that there was redundancy in teachers' knowledge of assessment to inform improvement in students' performance. This further indicates the usefulness of teachers' assessment competency in students' academic performance.

In combating a waning number of candidates registered for students in Basic Science due to poor performance, Adodo (2014) conducted a study to determine the impact of teachers'

assessment competency in Basic Science and Technology on secondary school students' cognitive achievement. It was discovered that teachers were professionally inadequate. Bandele and Oluwatayo (2013) investigated Nigerian Science Teachers' level of assessment literacy, focusing on teachers' knowledge of assessment techniques. They reported that teachers lacked sufficient knowledge of assessment techniques and used only one method to assess students. Despite the role of assessment in the education sector, literature suggests that studies on Nigerian teachers' level of assessment literacy and practices are uncommon, which is a major gap in research. The shortage of research on assessment literacy, especially in Akwa Ibom State, one of the educationally advantaged States in Nigeria, could be due to the broad spectrum of negligence. In the light of the above, there is a need to investigate assessment literacy among teachers teaching core subjects such as Mathematics. This study is more concerned with Mathematics teachers since it has multiple effects on other subjects.

Research Questions

The following research questions were raised to guide the study:

1. What are teachers' levels of assessment literacy in secondary schools in Akwa Ibom State?
2. To what extent do teachers incorporate assessment in the teaching-learning process?
3. Do classroom practices vary according to teachers' level of assessment literacy?
4. How do gender differences influence teachers' assessment literacy?

Hypotheses

1. There is no significant difference between classroom practices and teachers' assessment literacy level.
2. There is no significant difference of gender and teachers' assessment literacy.

Methodology

Research Design

The study adopted a triangulation mixed method research design. This design enabled the researcher to complement the quantitative data with the qualitative for a stronger validity of the findings (Creswell, Klassen & Smith, 2010). Assessment literacy tests and classroom checklists were used to collect quantitative data on teachers' assessment literacy and classroom practices. Interviews were used further to elucidate information on teachers' understanding of assessment literacy, while students' academic achievement was measured using Mathematics test.

Population

The study population consisted of all SS2 teachers and students of the 2023/2024 academic session in Akwa Ibom, with a population size of 7,564 students, 2580 teachers, and 230 principals.

Sample and Sampling Technique

The study adopted stratified random sampling to select secondary schools from the three Senatorial Districts of Akwa Ibom State. Hence, three major strata consisting of 230 public and government accredited private secondary schools in the State were formed. This was followed by purposive sampling, which selected the top 10 populated schools to represent each stratum. Therefore, a total of 30 top populated schools were selected. Proportionate sampling was deployed to determine the number of participants per school. The study also adopted stratified sampling to select students

based on gender, such that 220 males and 280 females were selected. Hence, 500 students, 300 teachers and 30 school principals were randomly selected from 30 secondary schools.

Instrumentation

Data for the study were collected using four research instruments: Teachers' Assessment Literacy Test (TALT), Teacher Assessment Checklist (TAC), Interview Guide for Teachers and Multiple-Choice Question in Mathematics (MCQ). TALT comprise 20 structured objective questions that cover concepts, types, methods, techniques, and principles of assessment. The interview section was used to complement TALT. TAC was deployed to obtain data on teachers' assessment practices, including frequency of assessment, methods used within twelve weeks of teaching, and confidentiality in handling students' responses. A class assessment exercise book of 20 randomly selected students from each class was obtained, compared, and used to fill out the checklist. This was to ensure that the teachers captured all written assessments.

In addition, 20 multiple-choice questions (MCQs) were developed for students. They cover the second term scheme of work for senior secondary two (SS2). The MCQ contents were validated using a table of specifications.

The four research instruments were developed using information from relevant literature, and the researchers vetted the draft instruments. Instruments were further presented to two experts of Test and Measurement for input, which aided their revision. Therefore, the instrument's validity was ensured by comprehensively including all the study variables, in which the inputs of Assessment specialists were incorporated. The reliabilities of the research instruments were determined by the test-retest method, and correlation coefficients of 0.81, 0.78 and 0.80 were obtained for TALK, TAC and MCQ, respectively.

TALT and MCQ were administered after the academic term resumed for 10 weeks. Each item was awarded five marks (5% of the total scores), totaling 100%. Teachers' scores on TALK were used to rate their levels of assessment literacy, which were categorised as high (70-100), moderate (50-69), and low (0-49).

Results and Discussions

Research Question 1: What are Mathematics teachers' levels of assessment literacy?

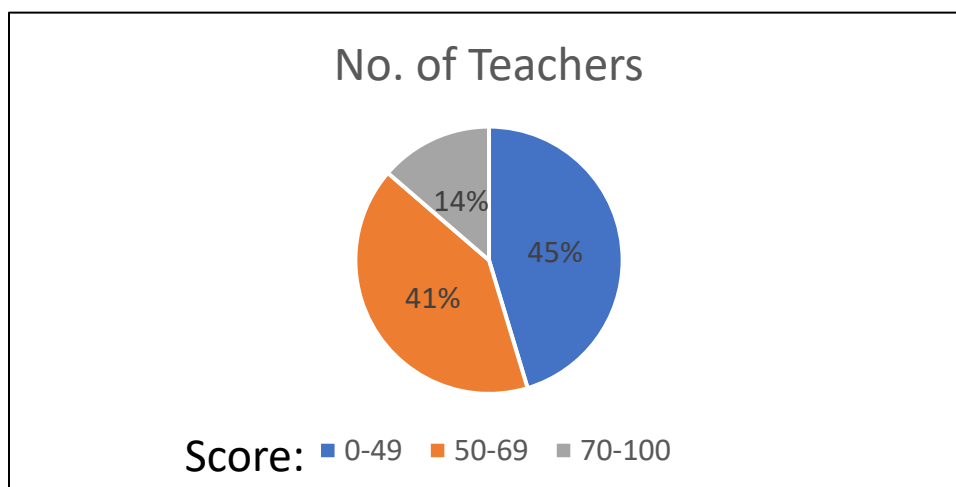


Figure 1: Mathematics teachers' level of assessment literacy

Figure 1 presents a pie chart distribution of the assessment literacy among Mathematics teachers. It shows that one hundred and thirty-six (136), representing 45% of the teachers, scored 0-49%, one hundred and twenty-three (123), representing 41% of the teachers, scored 50-69%, and forty-one (41) teachers, representing 14% of the teachers, scored 70 and above. Therefore, from the results, it can be concluded that most mathematics teachers in Akwa Ibom State have a low to moderate level of assessment literacy.

Research Question 2: To what extent do teachers incorporate assessment in their teaching?

Table 1: Frequency of Assessment practice by Mathematics Teachers

Description	Distribution of Teachers' Assessment Practice in 10 Weeks					Total
Frequency	0 Time	1-5 Times	5-10	11-15	16 and above	
No of Teachers	45	74	102	55	24	300
Percentage of teachers	15%	24.7%	34%	18.3%	8%	100%
Summary of rating of assessment		0-10 Times 73.3%		11-15 Times 18.3%	16 and above 8%	
		Low		Moderate	High	

Table 1 presents the distribution of teachers' frequency of assessment practice after ten (10) weeks of classroom instruction. (Approximately 30 lessons per teacher). The distribution is as follows: 15% (no assessment), 24.7% (1-5 Times), 34% (6- 10 times), 18.3% (11-15 Times) and 8% (16 and above). This result shows that most mathematics teachers hardly assess their students. This implies that the assessment component of the teaching-learning is missing in Mathematics class, constituting a major learning gap.

Hypothesis 1: There is no significant difference between the classroom practices of teachers with high assessment literacy and teachers with low assessment literacy.

Table 2: ANCOVA of difference between classroom practices of teachers with high assessment literacy and teachers with low assessment literacy

Source of variance	Sum of Squares	Df	Mean square	F-ratio	p-value
Intercept	996.822	1	996.822	30.028	0.000
Pre-test	141.692	1	141.692	4.268	0.040
Main effect					
Treatment	234.676	1	234.696	7.069	0.008
Model	14015.663	9	1557.296	46.911	0.000
Residual	7635.271	130	33.197		
Total	21750.934	139			

R Square = 0.494(Adjusted R Square = 0.477)

Table 3: Test of between subject effects

Group	N	Mean	Std error	Lower Bound	Upper bound
High literacy	136	38.80	.124	3.303	4.520
Low literacy	164	29.47	.124	1.942	2.324

A one-way between-group analysis of covariance was conducted to investigate the effectiveness of assessment literacy on learners' outcomes. The independent variable was the type of group (learners with assessment illiterate teacher and learners with assessment literate teachers), and the dependent variable consisted of score on mathematics posttest, learners score on the mathematics pretest were used as the covariate in this analysis. Preliminary checks were conducted to ensure no violation of the assumption of normality, linearity, homogeneity of variance, homogeneity of regression slopes and reliable covariate measurement. After adjusting for the mathematics pretest scores, there was a statistically significant difference between the two intervention groups in terms of mathematics posttest scores. The result presented in Table 2 shows that the students with high assessment literacy teachers had a mean score of 38.80, while students with low assessment literacy teachers had a mean score of 29.47. The F-value of the high-literate group was 7.069, significantly more significant than the low-literate group with 4.268. This means the classroom practice outcome is better with high-assessment literate teachers than low-assessment literacy teachers.

The distribution of assessment methods used by Mathematics teachers within 10 weeks of teaching in an academic term is shown in Table 4. 110 Mathematics teachers deployed homework as a mode of student assessment, while the least used method was fill-in-the-gap, which 6 (few) teachers used as a mode of assessment. In the order of frequency of usage, class work had the highest 2858 computed as 31.76%, closely followed by homework with frequency of 920 (10.22%), essay type test with frequency of 806 (8.96%), note book assessment has frequency of 802 (8.91%), multiple-choice test has frequency of 120 (1.33%), while the least used method was fill-in the gap with frequency of 70 (0.78%).

Table 4: Frequency of Assessment Method Employed by Teachers within 10 weeks of teaching

S/N	Preferred Method	Assessment No. of Teachers	No. of Assessment Done	% of Assessment Method used	Remarks
1	Home work	110	920	10.22	Rarely Used
2	Note Assessment	30	802	8.91	Rarely Used
3	Fill-in the gap	6	70	0.78	Hardly Used
4	Multiple Choice	15	120	1.33	Hardly Used
5	Essay Type Test	79	806	8.96	Hardly Used
6	Class Work	60	2858	31.76	Mainly Used
7	Total with Assessment		5,576	61.96	
8	Lessons without Assessment		3,424	38.04	Mainly Used
	Total		9,000	100	

Results in Table 4 further indicate that most mathematics teachers rarely assess students' notes after administering homework. Fill-in the gap and objective type tests were rarely used for assessing students. In addition, 38.04% of the lessons taught were not assessed using any of the assessment methods considered by this study. 300 Mathematics teachers, teaching an average of three lessons per week for ten weeks, should teach 9,000 (100%) lessons. However, results show

that 61.96% of the total lessons were assessed. This confirms the result in Table 1, indicating that not all lessons were assessed.

Hypothesis 2: There is no significant difference in teachers' gender and assessment literacy among senior secondary school teachers in Akwa Ibom State.

To determine teachers' gender and assessment literacy among Mathematics teachers in senior secondary schools in Akwa Ibom State, an independent t-test was used as a data analysis tool. From Table 5, the mean value on assessment literacy for each group was 54.67 for male teachers and 64.68 for Female teachers.

Table 5: Gender Difference and Assessment Literacy

Gender	N	Mean	SD	t-value	Df	p-value
Male	82	54.67	4.67	.30	198	0.425
Female	118	64.68	6.59			

The results reveal that the mean score on assessment literacy for male teachers of SSS ($M = 54.67$, $SD = 4.67$) is not significantly different from that of female teachers of SSS ($M = 64.68$, $SD = 6.59$) at t value ($t = 306$, $df = 198$, $p = 0.425$). Thus, a p -value of 0.425, which is >0.05 , was achieved. Based on the result, the stated null hypothesis that there is no significant gender difference in assessment literacy among teachers of SSS in Akwa Ibom State was upheld. That means there is no significant gender difference in assessment literacy among teachers of SSS in Akwa Ibom State.

Discussion

Findings from this study unraveled the Mathematics teachers' level of assessment literacy, the frequency at which assessment is applied assessment in the teaching-learning process, and the methods of assessment deployed. The study shows a low level of assessment literacy for the majority of teachers; some had a moderate level, and only a few were of the high level of assessment literacy. In addition, teachers' limited knowledge of assessment was further revealed during the interview section, as most teachers do not understand when a particular type of assessment could be administered. Also, some teachers did not understand that classwork and homework given to students are assessment methods; hence, they never considered them necessary to be marked. This confirmed the work by Bandele and Oluwatayo (2013), who reported that many science teachers do not have sufficient assessment knowledge. This could inform ineffective classroom practices. Teachers' neglect of assessment can be attributed to inadequate in-service training and retraining for teachers.

Teachers' assessment literacy influence on classroom practices and students' performance in multiple choice tests indicates a significant relationship. Hence, teachers with low assessment literacy definitely deploy poor classroom practices and produce low academic performing students. Teachers with low-moderate assessment literacy were limited in skills needed for effective interpretation of standardised tests and classroom assessment. This translates to inadequate expertise in test construction and in using valid evaluation procedures, which creates intricate problems for learners when faced with standardize examinations.

Findings also revealed deficiencies in classroom practices, to the extent that some teachers cannot respond appropriately to students' questions or make the right decisions about teaching. Conversely, assessment-literate teachers were confident enough to control classroom practices. This explains why assessment literacy should be incorporated into teacher education programmes.

Furthermore, the study identifies that gender differences do not significantly vary with assessment literacy among teachers. This finding supports the work of Darazo (2015), which was conducted on Test construction skills in Gombe State using senior secondary school teachers. The result indicated that there is a significant difference between male and female teachers in test construction.

Findings further show that teachers' assessment literacy has a statistically significant impact on learners' academic performance. Knowledge of assessment can provide teachers with the required information about the effectiveness of their pedagogy and curriculum materials. In addition, proper interpretation of assessment results can provide deep and clear information to parents and governments. It is surprising that, in spite of the high premium placed on Mathematics by education stakeholders, most lessons are often not evaluated, and some homework is given, but the teachers do not check notes.

Teachers also made valuable suggestions on how to improve their assessment literacy. Some wanted in-service training on assessment. They also suggested training on assessment methods, while some wanted the WAEC standard of marking so that they could adequately prepare students for the examinations, teach students how to ask questions, and elicit the correct responses from students.

There is a serious need for continuous engagement in professional learning to improve teachers' assessment practice and stay updated with emerging assessment tools and strategies. This will create a fair and equitable assessment. In this way, assessment can be used to inform and adjust teaching strategies and make necessary interventions.

Conclusion and Recommendations

The study investigated the influence of teachers' assessment literacy on classroom practices and students' academic performance. Therefore, this study sheds light on the problems of mathematics pedagogy in Nigeria, especially in the area of formative assessment. The results from the study demonstrated that teachers' literacy assessment was low to moderate for most of the teachers, which significantly influences students' performance in mathematics. The findings also confirmed that there is a great difference between classroom practices of assessment literate teachers and assessment illiterate teachers. Assessment literate teachers often set classroom activities based on three fundamental notions: setting goals based on learners' interests, dynamic assessment through classroom assignments, and giving feedback. Since the assessment component is missing, their instructional practices cannot be effective. Consequently, they cannot make informed instructional decisions or give appropriate feedback to students because they have no evidence or accurate measurement of students' learning. Assessment literacy means the knowledge of any procedure used to obtain information about the learners' learning conditions. Assessment literacy should be the central focus of teacher education programmes, and teachers should be willing to embrace change if offered opportunities to enhance their assessment knowledge and practice.

Teachers learn how to evaluate the effectiveness of instruction and learners' potential when taught the concepts practically. The findings of the interviews revealed that there are at least three reasons why assessment illiterate instructors did not use formative assessment in their classrooms. First, some teachers had limited knowledge of this assessment. Second, teachers felt they did not have enough time to check learners' progress, strengths, and weaknesses through various assessment methods. Third, teachers felt there was inefficient financial support; therefore, teachers were not motivated enough to try out different forms of assessments in their classrooms. These findings are core, considering the place of assessment in our educational sector and addressing the

much-clamored fallen education standards. This is because teachers' assessment literacy implies the quality of education. These are the recommendations

1. Professional development of teachers through in-service training and retraining on assessment skills should be a priority. Science learning starts with a change in environment. Teachers could be stratified and trained in batches.
2. Assessment literacy should be emphasised in teacher-preparation programmes. Teachers' training institutions and the Teachers Registration Council of Nigeria could ensure that would-be teachers are assessment literate before certification.
3. Mathematics teachers should be required to have experience marking standardized examinations such as WASSCE. This will enable them to learn from the marking guides as well as from statutory markers. However, this can only suffice for teachers teaching WASSCE and its equivalent examination subjects.
4. Studies related to teachers' assessment literacy should be carried out frequently to ascertain teachers' current status in the face of emerging assessment tools and strategies

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