



Secondary School Teachers' Classroom Assessment Skills in Nigeria

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SECONDARY SCHOOL TEACHERS' CLASSROOM ASSESSMENT SKILLS IN NIGERIA

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ABSTRACT

This study was conducted on the classroom assessment skills of secondary school teachers in North Central Nigeria. The study adopted a descriptive survey approach. A total sample of 1440 teachers was drawn out of the total population of 26,230 teachers of public senior schools in North Central, Nigeria (FME, 2020) The instrument for data collection was the Classroom Assessment Literacy Inventory (CALI). The instrument was trial tested and a reliability coefficient of 0.72 was obtained. The data collected were analysed using descriptive statistics, and Four-way Analysis of Variance (ANOVA) at an alpha level of 0.05 significance. The result revealed that 525 participants had a range score of 0 – 11 out of the total 35, indicating that they were below expectation (average). The majority of the teachers (61%) performed at expectation (average) in CALI, while 862 (61.3%) were at expectation (average). The overall level of teachers' classroom assessment skills was at expectation as the majority (61%) of them performed at a mean score of 13.56 in CALI. The study concluded that the classroom assessment skills of senior school teachers in North Central, Nigeria are just average. It was recommended among others that workshop training on classroom assessment that would be relevant to real classroom situations be conducted for teachers across the country to enhance their skills and competencies.

Keywords: Classroom Assessment Skills, Secondary School, Gender

INTRODUCTION

The fundamental rationale behind teaching is to promote functional learning in students; hence, effective learning is the essence of teaching. Regardless of the magnitude of time spent on teaching the volume of content covered, and the nature of instructional materials used, teaching would become a fruitless effort if learning has not taken place. Learning is the activity to be considered first even before actual teaching. While learning is a pre-determined activity, teaching serves as a process of actualizing it. Also, while learning is a goal, teaching is a channel for the attainment of such a goal. Here, the vital role of assessment cannot be undermined. The evidence that assessment remains a major and powerful tool, as well as a process for enhancing learning, is overwhelmingly proven. Some studies conducted revealed that teachers use classroom assessment to promote self-reflection and self-regulated learning among students, just to mention but a few (e.g., Alkharusi, 2008; Olina & Sullivan, 2002; Rodriquez, 2004; Seval, 2015; Stefanou & Parkes, 2003). Rodriquez (2004) asserted that assessment at the classroom level is very important because it directly impacts students through modification of behaviours and enhancement of academic motivation and achievement, though, it largely depends on the practices employed by the classroom teachers. Some assessment scholars identified learning as a goal that teachers and students collaborate to attain through the use of ongoing assessment and relevant feedback.

Assessment is, therefore, a means through which a classroom teacher can ascertain how much knowledge is gained by students in a teaching-learning process. It is both a concept and a practice; and has been defined extensively by experts in evaluation. Kellaghan and Greaney (2001) for instance defined assessment as an aggregate or part of a procedure specifically formulated or designed to elicit information about a learner's or a group of learners' knowledge, attitude, or skill. Similarly, assessment is conceived as the practice of gathering evidence of students' learning in all

ramifications. These may connote knowledge, skills, values, and attitudes examined through observation of students' behaviour when carrying out tasks, tests, and examinations. It involves all processes through which the extent to which education has achieved its goals and objectives are determined (Akinyemi, 2017).

Assessment systems that focus on learning can be segmented into three types of assessment activities. Each of these types is meant to: serve a specific purpose, address a specific need, and supply needed information. These are classroom assessments, examinations, and large-scale assessments. This is in line with Cresswell's (2016) classification of assessment as classroom assessment, examination, and system-level assessment. The first assessment type functions to help prepare and equip learners for the challenges of the other two. It is thus characterised by continuous, formative, and remediation qualities. In the SABER Country Report of 2013, the nature of classroom assessment is succinctly described as one which provides real-time information to support ongoing teaching and learning in individual classrooms. Classroom assessments use a variety of formats, including observation, questioning, and paper-and-pencil tests, to evaluate students' learning, generally daily (The World Bank, 2013). Classroom assessments are teacher-based; and are instruments a teacher uses to measure and determines genuine learning and success in his teaching activity.

In light of the above, Oyegoke (2017) identified teaching and learning as the two major processes that occur concurrently in a classroom setting, and that one cannot take place in isolation from others. Therefore, it is learning that justifies teaching. Likewise, teaching would only be a fruitful activity only when students have learned what is expected of them as stated in the behavioural objectives. However, learning may occasionally take place without teaching or predetermined given instruction by a teacher. Summarily, assessment is central to teaching and learning and forms an important element in the lives of pupils and teachers. During the school year (such as an academic session) a significant amount of time and effort are spent on assessing, marking, testing, examining, and reporting. Spending more time on classroom assessment is not the ultimate, what matters is when a teacher can use the time in promoting student learning.

For instance, Mertler and Campbell (2005) narrated that in America, having realized that generally, teachers lacked the requisite knowledge and skills they ought to possess in the area of classroom assessment, in 1987, the trio of American Federation of Teachers (AFT), the National Council on Measurement in Education (NCME) and National Education Association (NEA) came together to fashion out the 'Standards for Teacher Competence in Educational Assessment of Students. This effort was borne-out so that the educational benefits of student assessment would be fully realised. The Standards specifically stipulated the following skills a classroom teacher should possess concerning assessment; choosing and developing relevant assessment methods; administering; scoring and interpreting assessment results; using assessment results for decision-making and grading; communicating assessment results; and recognizing unethical assessment practices (Mertler& Campbell, 2005).

The Standards for Teacher Competence in Educational Assessment of Students is a canonical one in the field of evaluation; hence, Classroom Assessment Literacy Inventory (CALI) developed by Mertler and Campbell in 2005 seems to have used the Standards as a springboard. With this alignment, CALI could provide a reliable diagnostic tool for identifying areas where teachers are deficient based on each of the Standards' components. As Mertler and Campbell (2005) rightly concluded, such identification of teachers' deficiencies in classroom assessment skills would serve as a roadmap for remediation, thereby teachers would be able to use their classroom assessment skills for educational decisions that would contribute to student learning. This kind of synergy is expected among educational and assessment agencies in Nigeria, not limited to fashioning out standards for teacher competence in student assessments, but also looking into modalities for equipping pre-service teachers with adequate knowledge and skills in assessments and professional development training on assessments for in-service teachers. The need becomes imperative because teachers' skills in handling classroom assessments are fundamental teaching-learning activities.

Similarly, Atkin, Black, and Coffey (2001) gave a better clarification when they argued that the assessments operated in the classroom on a daily basis differ from the assessment types earlier mentioned. Classroom assessment is less formal and flexible, and may be conducted as deemed fit by the teacher. For instance, a teacher instructs students to comment on what they learned and the remarks made by students inform the teacher that they do not understand what he taught them and therefore, he decides that earlier activity or discussion be revisited. Hence, classroom assessment has been conducted and feedback information received. The way assessment is organized in a school or classroom plays a major role in creating the culture, attitudes, and norms of behaviour which shape the learning process. It requires careful planning to ensure that the regime in the classroom fosters motivation, self-esteem, and a desire for lifelong learning in all students. Classroom teachers compared to any other participant are actively and continuously involved in the assessment of students' learning. Jubbarifar (2009) explained that even in a student-centered classroom where students take a much more active role by deciding what activities to do and when to do them, the teacher performs the role of guidance, adviser, or supervisor, without which students may not be well guided.

Finally, Guskey (2010) emphasised Bloom's position that means to check learning progress should be incorporated into the teaching and learning processes if they were to be more beneficial. Hence after a quality unit of instruction, the teacher should administer a formative assessment typically classroom-type to be able to identify precisely the components of instruction which students have learned well and where additional efforts are needed. Iddo (2017) stressed that 'assessment of students' learning is an integral component of the teaching-learning process'. In their wider conception of the term, Tanner and Jones (2003) said that assessment embraces and means much more than narrowing it down to examination, testing, and marking. It also goes far beyond the process of measuring learners against standards; therefore, classroom assessment is about information, communication, as well as learning, and teaching. By implication, curriculum and students should be taken into account while designing, developing, and applying assessment methods that are most appropriate for the purposes the assessments serve.

Based on this background, it is the desire of this study to examine teachers' assessment skills with a view to seeing their level of assessment skills and examine whether their assessment skill level would differ based on Gender and Educational qualification. In view of this, the study will provide answers to the following questions.

RESEARCH QUESTIONS

The study intends to find answers to the following questions.

1. What is the general level of senior school teachers' classroom assessment skills in the North Central, Nigeria?
2. Are there differences in senior school teachers' skills in choosing appropriate assessment methods based on gender and educational qualification?

HYPOTHESIS

There is no significant difference in senior school teachers' skills in choosing appropriate assessment methods based on gender, educational qualification, teaching experience, and workshop training received in the North Central, Nigeria.

STATEMENT OF THE PROBLEM AND RESEARCH GAP

Previous studies on teachers' classroom assessment skills and practices though have paved the way for this study; none of them known to the researcher had evaluated teachers' classroom assessment skills directly. For instance, the study of Gurski (2008) was conducted on secondary teachers' assessment and grading practices in inclusive classrooms in one urban school division with 106 teachers as the study sample in Saskatchewan. The study by Kolo-Keaikitse (2012) that focused on classroom assessment practices of primary and secondary school teachers in Botswana mainly examined the discrepancies between teachers' perceived skill and practices of classroom assessment practices.

Also, a study by Perry (2013) on teacher and principal assessment literacy: A look at the level of assessment literacy of high school principals and high school teachers in the state of Montana, involved 56 participants made up of 32 principals and 14 teachers. The study was conducted in a state which is characterized as being rural in nature. A sample size of 56 is small for a survey which may not affect the generalizability of the findings.

Zhang and Burry-Stock (2003) investigated classroom assessment practices and teachers' self-perceived assessment skills as a function of teaching experience and measurement training. The study involved only 297 teachers who completed the survey and returned the answer sheets to the school secretary out of 845 who were initially given the survey. The findings revealed that teachers with measurement training had a higher level of self-perceived assessment skills, and communicated assessment results than those without such training. It was recommended among others that preservice teachers should be well-groomed in measurement training and coursework. Also, in-service teachers should focus more on classroom assessment including conducting their measurement projects on the activities taking place in their own classrooms.

Alkharusi (2011) investigated self-perceived teachers' classroom assessment with specific attention to the influence of teacher characteristics-related factors such as gender, subject area, grade level, teaching experience, and in-service assessment training. The study involved 213 Omani teachers drawn from Muscat public schools teaching grades six, eight, and ten. The findings indicated that female teachers through self-report have a higher level of assessment skills both in writing test items and communicating assessment results than their male counterparts. Also, teachers with more than ten (10) years of teaching experience reported skillfulness in test items analysis, communicating assessment results, writing test items, and grading than the other two categories of teachers with 1-5, and 6-10-years teaching experience. It was recommended that training on classroom assessment should be given to the teachers considering their subject areas and other factors.

Most of the studies were surveys conducted to seek teachers' opinions on classroom assessment practices, grading, and teachers' self-perceived classroom assessment skills. Also, the previous researchers have not adopted any model of teacher evaluation for their studies and none of those studies was conducted in the North Central, Nigeria. This study is, therefore, not merely concerned itself with seeking teachers' opinions on classroom assessment skills, it attempts to evaluate their skills in the area of classroom assessment. These are the identified gaps intended to be filled by the present study and as a complementary study to the existing knowledge. A study on the evaluation of senior school teachers' classroom assessment skills in the North Central, Nigeria is therefore worthy to be carried out.

LITERATURE REVIEW

Education ministries across the world are fond of incorporating educational assessment into their educational reform processes. The three identified assessment types used in the educational processes are: classroom assessment, examination, and system-level assessment. While classroom assessments and examinations are meant to measure the learning outcomes of individuals, the system-level assessment is meant to describe the characteristics of the population (Cresswell, 2016).

Governments in developed countries do not take the issue of classroom assessment levity. Ministries do collaborate with educational agencies and organizations. For instance, a task force on classroom assessment was established by the National Council on Measurement in Education (NCME) under the leadership of President Mark Wilson in 2016. In a newsletter, Wilson (2016) stressed that a greater effort is directed toward the development and use of various forms of tests and assessments as professionals in the field. And, the largest proportion of funds available for this mission is obtained from various sources including educational policymakers and administrators at different tiers of government. Tennessee also has an assessment task force. In 2015, the Joint Committee on Standards for Educational Evaluation (JCSEE) came up with classroom Assessment Standards that seek to serve as a guide for classroom teachers, professional developers, and administrators, and to avoid any assessment beyond the control of the classroom teachers among others (NCME, 2018).

It is no gain-saying that assessment is a major component of the educational system, irrespective of a nation's educational and overall developmental stage. The quality and standard of existing educational assessment and statutory bodies responsible for the conduct of various examinations in a country, to a much extent, determine and may replicate the educational standard of such a country. Education has two sides, teaching and learning, and assessment. To appreciate the importance of assessment, Amua-Sekyi (2016) opined that assessment is all about learning. It is integral to teaching and learning activities in schools. Therefore, assessment and teaching are both major activities that teachers engage in on a routine basis for effective learning among students.

The importance of assessment to educational development is just like that of education to national development. Perhaps, that is why the National Policy on Education stated that the Nigerian government has adopted education as an instrument par excellence that would be used for the attainment of national development (FRN, 2014). Similarly, the American government when introducing the 'No Child Left Behind' (NCLB) and its Act enacted in 2001 and signed into law in January 2002 described the Act as a landmark in education reform designed to improve student achievement and close the gaps (Rebora, 2004; U. S. Department of Education, 2004). Also, it is stated in the Policy of Education in Botswana (PEB) that "education is a strategic investment which government undertakes for the country's present and posterity and will support programmes that pay attention to the enhancement of teaching and learning at all levels of education (BFTU, 2007). The above are policy statements and positions of the governments of different countries on education.

In Ghana, the national syllabi stipulate guidelines for teachers to follow in conducting classroom assessments. The Ghanaian education system also entrenches within the system, mechanisms that will equip and develop teachers' skills and expertise in classroom assessments. However, the major obstacle is a dearth of resources available at teachers' disposal that would allow them to conduct meaningful classroom assessments. Hence, in the SABER Country

Report of 2013, the report that in Ghana, classroom assessment practices nationwide are poor and weak, without adequate monitoring mechanisms for their quality (The World Bank, 2013).

However, in Nigeria, both the National Policy on Education and the Secondary School Education Curriculum, lack adequate provision for classroom assessment. While the former only mentions 'continuous assessment', the latter merely contains an 'evaluation guide' that gives some evaluative questions that are in line with the performance objectives stated in the first column. Information regarding the assessment methods, forms, and tools to be used by classroom teachers is not provided. Nevertheless, such information was contained in the manual for school-based assessment jointly prepared by the National Teachers' Institute (NTI) and Teacher Education in Sub-Sahara Africa (TESSA) in 2008, though not explicit enough. The manual was produced to introduce to primary school teachers the school-based assessment and as one of those used for training and re-training of primary school teachers to enhance their professional competence and development.

As said earlier, assessment remains a major component of the education system. For instance, in the American education system, assessment, evaluation, and accountability occupy central positions and are more importantly being used as bases for the actualization of educational aspiration. It is equally stated that 'the goal of having every child enrolled and sustained by making sure that students are making the grade on state-wise education standards set to be achieved by the end of 2013- 2014 school year (U. S. Department of Education, 2004).

There is a contending argument on whether or not teachers' assessment of their students should continue to be part of standardized examinations such as the senior school certificate examination. In their reaction, Black and Wiliam (2018) argued that the practice is like 'letting the fox guard the hen-house', therefore, teachers will be tempted to rate their students' achievement high. Compared to other professions like medicine and law, teachers have not been able to regulate their own standards. They, however, concluded that teachers' assessments still play an important role both in making certain decisions about students and as part of the summative assessment process that will lead to the certification of the students. By implication, the conclusion can be made that educational policies globally recognize the importance of classroom assessment conducted by teachers.

The mere fact that one is a classroom teacher does not make him a competent assessor, though he may be engaging in assessing students learning. The issue of assessment is a topical one. The reason is obvious because it borders on its importance to both teaching and learning. Sanders and Vogel (1993) opined that student assessment is an essential part of a good teaching process and that latter cannot exist without former.

Wolfel (2009) contended that classroom assessment has become one of the major hot topics in contemporary education, and the academic literature on classroom assessment is extensive. He supported this assertion with the claim that over 10,000 works in JOSTOR and several hundred in Academic Search Premier were on classroom assessment. What triggered this was the quest for teacher accountability in the education system in the last three decades in the United States.

However, assessment to a greater dismay has been treated with confusion in the academic community where such is least expected. There are three major reasons adduced for that. First, there is the link between assessment and accountability which makes many teachers perceive it as a myth they should challenge. Secondly, there is the availability of a plethora of literature on assessment but competency in the utilization and implementation of assessment among teachers is too minimal. Lastly, a greater percentage of teachers do not know how to apply classroom assessment techniques for improving their teaching, as well as student learning (Wolfel, 2009).

Although assessment reform theorists and assessment experts have been able to prove beyond doubt that when a teacher implements sound, consistent, and reliable assessment practices in the classroom on a daily basis, students' learning and achievement will improve, the will and ability to implement such assessment depend on competency. Gurski (2008) reported that the assessment reform movement has proved the potency of classroom assessment and grading practices in the improvement of teaching and learning. He further established that more researchers have used meaningful and relevant classroom assessment and grading practices as a means to facilitate and improve effective learning among students.

Stiggins (1998) gave a report on state licensing and certification requirements as follows: fifteen (15) states are with teacher certification standards requiring competence in assessment, ten (10) states explicitly require assessment course work during training, and twenty-five (25) states do not expect competence in assessment. As of the mid-90s, virtually all standards of teacher competence (i.e., the equivalence of present-day teacher evaluation models) developed by NEA, AFT, NCATE, CCSSO, and NBPTS required that teachers should be competent in assessment. With the above facts, Stiggins purposely wrote a paper meant to avail teacher training institutions with a set of programme evaluation criteria to serve as a yardstick for assessing the nature and quality of their current assessment training programmes. The paper was presented at the annual meeting of the American Association of Colleges of Teacher Education held in New Orleans LA, in February 1998. This is the epitome of service to humanity.

It is therefore noted that several studies have been conducted on classroom assessment practice and teachers' competency in students' assessment. Mertler and Campbell (2005) narrated that at a time in the United States, there was an urgent call for teachers' competency in the assessment of student achievement at the district, state, and national levels. This call made competence in assessing student performance a major responsibility of a classroom teacher. They echoed that it has been documented in the research that teacher assessment skills are poor and generally weak. This claim was supported by several studies (Mertler & Campbell, 2005). However, the fact remains that despite that classroom teachers' daily routine work and responsibilities are quite enormous and multi-faceted, assessing student performance is very crucial and more central to their professional competence, hence, no other responsibility is ranked superior to student assessment (Mertler & Campbell, 2005).

Price, Pierson, and Light (2011) noted that before the emergence of research such as those conducted by Black and Wiliam in 1998 and Popham in 2008 which emphasized the prominent role that teacher-developed (classroom) assessments play in supporting learning, teachers had always tended to base an evaluation of student's knowledge on a test of recall or asking questions on the content-related questions, during or after lessons. McMillan, Myran, and Workman (2002) submitted their finding that existing literature on elementary classroom practices among teachers indicates they need further training, to improve their competency in classroom assessment and subsequently improve the quality of assessments used for determining student learning. It was also noted that only fewer number of assessment questions are meant to tap higher-order thinking skills among students. The fact remains that skills and competency level would determine practice. Nevertheless, McMillan, Myran, and Workman, (2002) said a study had reported that teachers selected across elementary, middle, and high schools were able to prove significant knowledge on selecting and administering the assessment, while their knowledge on communicating assessment results to appropriate parties was extremely poor. They, therefore, recorded poor assessment competency for teachers, though teachers who had undergone courses on measurement during training were able to demonstrate their competency.

In a survey conducted by Nenty, Adedoyin, Odili, and Major (2007) on primary school teachers' perception of classroom assessment practices as a means of providing quality primary education in Botswana and Nigeria, an attempt was made to look at teachers' perception of six levels of Bloom's cognitive behaviour. Also, a comparison of the two countries' teachers' perceptions as well as how current assessment practices involving items that measure each of the cognitive levels were investigated. It was reported in their study that there exists a significant discrepancy in the teachers' perception of Bloom's taxonomy of human cognitive skill. Therefore, there exists a significant discrepancy in the views of teachers of the two countries on the ability of each of Bloom's cognitive skill levels to enhance the quality of education among pupils.

Furthermore, in a study conducted on measuring teachers' knowledge and application of classroom assessment concepts by Mertler and Campbell (2005), the result indicated that pre-service teachers' overall performance on the Assessment Literacy Inventory (ALI) was lower. This is contrary to the expectation that they had just concluded coursework in assessment. However, the mean scores of in-service teachers were much higher than those of pre-service teachers who were tested under similar conditions (Mertler & Campbell, 2005).

Faley and Adefisoye (2016) in their study on continuous assessment practices of secondary school teachers in Osun State found that teachers only based the student assessment on cognitive development and jettisoned both affective and psychomotor development. This is however contrary to the principle of assessment that students should be exposed to a variety of learning tasks and diverse assessment tools and methods so that valid information on the learner's overall performance can be obtained.

Another study narrower to 'Classroom Assessment-for-Learning in Secondary Schools in Kenya' carried out by Kagete (2013) found that sixty percent of the teachers conducted an assessment to diagnose the areas of students' learning difficulties. It was reported that only twenty-seven percent tested their students for grading which indicated that some teachers had yet to adapt to an assessment for learning, rather than an assessment of learning. Also, some teachers tested students' mastery and understanding of the content taught, while some equally tested for motivation purposes, to improve teaching, and some for grading. On feedback, Kagete (2013) further found that three-quarters of the teachers made use of written comments that indicated student strengths and weaknesses, with not less than the same percentage providing an avenue for students to see their works and their progress thereby helping to build in their students' confidence and self-esteem. However, the contradiction is that there was a low correlation between teachers' practice and the value of reporting students' assessments. This is an indication that teachers attached less value to the use of feedback.

Furthermore, Pang and Leung (2011) conducted a study on Assessment for Learning meant to examine teachers' competency in such assessments in early childhood education in Hong Kong. Meanwhile, they have inter-alia carried out a study in 2008 on teachers' habit of using AFL skills and techniques with the collaboration of relevant agencies. They found that teachers at the kindergarten level frequently use class observation, effective questioning, quality feedback, and teacher reflection, while peer assessment and self-assessment were rarely used. For primary

school teachers, the forms of AFL strategies adopted were self-assessment, peer assessment, class observation, effective questioning, quality feedback, and teacher reflection. The frequency of classroom use of AFL strategies is very similar to those of their counterparts at the kindergarten level, most especially after the given intervention by the researchers.

There is a paradigm shift in the theory of assessment from what could be referred to as the predominant classical assessment of learning to the modern or contemporary ‘assessment for learning’ and ‘assessment as learning’. This paradigm shift was consequent upon the change in societal expectations for schooling and education as a whole. The three fundamental changes in societal expectations as enumerated by Manitoba Education, Citizenship and Youth (2006) are that; post basic education graduates are expected to demonstrate competence in complex critical thinking, problem-solving, and effective communication, learning should be a process of ideas construction with emphasis on individual differences, and assessment should compare learner’s past and present performance to see whether progress is made or not rather than comparing a learner’s performance with those of brilliant peers that could indicate failure or defeat (Manitoba Education, Citizenship and Youth, 2006). There are two interrelated perspectives through which the role and function of student assessment in the classroom have been established. Assessment is viewed as part of both teaching and learning processes (Cavanagh, Waldrip, Romanoski, Dorman & Fisher, 2005).

Last, according to Katz, Earl, and Olson (2001), the practice of classroom assessment paved the way for the emergence of paradoxes due to their being susceptible to being conceptualized as having multiple purposes. They explained that assessment as a matter of fact must satisfy many goals such as providing feedback to students, offering diagnostic information to the teacher to use, providing summary data for record-keeping, proffering evidence for the report, and directing effort at curriculum revision (Katz, Earl & Olson, 2001). Certainly, the multi-complexity of the assessment role will pose a challenge to teachers with little competency in assessment skills. The traditional purpose of assessment is to rank students’ achievement in learning which has been used to label a student an academic winner or loser, of course, students with high achievement at the initial stage will tend to build on it as they proceed, those who record low or poor achievement at an early stage may continue to further lag (Stiggins, 2007). This is the pervasive consequence of the assessment of learning which both assessments for learning and assessment as learning seeks to remedy and by and large promote students’ learning.

METHODOLOGY

Design: This study adopted a descriptive survey approach to evaluate the classroom assessment skills of senior school teachers in the North Central, Nigeria which is a form of Personnel Evaluation (PE). As explained by Abiri (2006), personnel evaluation usually focuses on the staff of the institutions concerned, among them are school administrators and teachers. He further explained that their quality, quantity, skills, and performance among others are things that constitute the interest of the evaluator or researcher. However, in this study, emphasis is placed on teachers’ classroom assessment skills. The descriptive survey is appropriate because it will enable a description of the variables of interest as found in the respondents.

Scope and Population: The study focused on teachers’ classroom assessment skills. It attempted to evaluate senior school teachers’ classroom assessment skills in the North Central, Nigeria. The population (which is equally the target population) comprised 26,230 teachers in public senior schools in North Central, Nigeria (FME, 2020). The sample consisted of 1440 senior school teachers teaching at senior secondary school one to three (SSS I-III) classes that would spread across 60 senior secondary schools in three of the six states (Kogi, Kwara, and Niger) and the Federal Capital Territory (FCT) in North-central, Nigeria. The teachers in all classes were selected using a simple random sampling method, to have a sample that would be a true representation of the population.

Instrumentation and Data Analysis: The instrument for data collection in this study was the Classroom Assessment Literacy Inventory (CALI) developed by Campbell and Mertler in the year 2003. The data collected were analyzed using descriptive statistics, and Four-way Analysis of Variance (ANOVA) statistics.

FINDINGS AND DISCUSSION

Research Question One: *What is the general level of senior school teachers’ classroom assessment skills?*

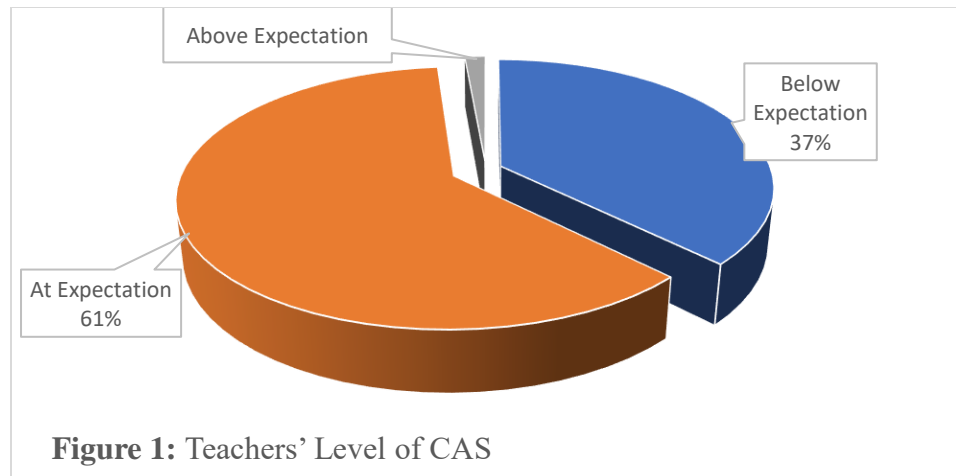
Given that the Classroom Assessment Literacy Inventory contains 35 multiple-choice items which were scored dichotomously with a minimum of 0 and a maximum of 35, teachers whose scores fell within the range score of 0 – 11; 12 – 23, and 24 – 35 were categorized as Below Expectation (low level), At Expectation (average level) and

Above Expectation (high level) respectively. The summary statistics of teachers' general-level classroom assessment skills are presented in Table 6

Table 6: General Level of Classroom Assessment Skills (CAS) of Senior School Teachers

Teachers' Level of CAS	Range Score	Frequency	Percentage
Below Expectation	0 – 11	525	37.3
At Expectation	12 – 23	862	61.3
Above Expectation	24 – 35	20	1.4
Total		1,407	100.0

Table 6 showed that 20 (1.4%) of the teachers were above expectation in classroom assessment skills, while 862 (61.3%) were at expectation. However, 525 (37.3%) of the participants were below expectations in classroom assessment skills. Despite that majority of the participants i.e., 61.3% were at expectation, those that were below expectation 37.3% which is more than one-third (1/3) of the total participants is quite significant. This is also depicted in Figure 1.



As shown in Figure 1, the general level of senior school teachers' classroom assessment skills was at expectation in the North Central, Nigeria as the majority (61%) of the teachers performed at average in the Classroom Assessment Literacy Inventory (CALI).

HYPOTHESES TESTING

HO: *There is no significant difference in senior school teachers' skills in choosing appropriate assessment methods based on gender, educational qualification, teaching experience, and workshop training received in the North Central, Nigeria.*

Inferential statistics of Four-way Analysis of Variance (4-way ANOVA) were used to test all the hypotheses postulated for this study at 0.05 alpha level.

4-way Analysis of Variance showing the difference in senior school teachers' skill in choosing appropriate assessment methods based on gender and educational qualification.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	129.115 ^a	46	2.807	2.293	.000
Intercept	968.904	1	968.904	791.662	.000
Gender	.106	1	.106	.087	.768
Qualification	5.722	3	1.907	1.558	.198
Gender * Qualification	9.028	3	3.009	2.459	.061
Error	1664.486	1360	1.224		

Total	6971.000	1407
Corrected Total	1793.601	1406
a. R Squared = .072 (Adjusted R Squared = 041)		

Results in the Table revealed whether a statistical difference exists in senior school teachers' skills in choosing appropriate assessment methods based on gender and in the North Central, Nigeria. Based on gender, the p -value of 0.768 obtained is greater than 0.05 alpha level, and thus, no significant difference occurred in senior school teachers' skill in choosing appropriate assessment methods based on gender ($F_{(1)} = 0.087; p > 0.05$). Also, based on educational qualification, the p -value of 0.198 obtained is greater than the 0.05 alpha level. Hence, there was no significant difference in senior school teachers' skills in choosing appropriate assessment methods based on educational qualifications ($F_{(3)} = 1.558; p > 0.05$).

Therefore, the F -value of 0.366 with the p -value of 0.872 was obtained when computed at 0.05 alpha level. Since the p -value of 0.872 is greater than 0.05 alpha level, the sole hypothesis is retained and thus, there was no statistically significant difference in senior school teachers' skill in choosing appropriate assessment methods based on gender and educational qualification in the North Central, Nigeria.

CONCLUSION

The results revealed that a total of 525 participants had a range score of 0 – 11 out of the total 35 which indicated that they were below expectation (below average). While a total of 862 participants had a range score between 12 – 23 which indicated they were at expectation (at average level) in classroom assessment skills, a total of 20 participants had a range score of 24 – 35 which indicated they were above expectation (above average). With the above statistics, the teachers involved in this study can be adjudged to have been at expectation (i.e., at moderate) in their classroom assessment skills. This suggests that the classroom assessment skills of the senior school teachers in the North Central, Nigeria involved in this study be considered just average. This report corroborates the findings of Perry (2013) that both principals and teachers on average scored 21 out of 35 items correctly in CALI. Contrariwise, Naim, et al. (2016) in a study reported a high level of competency in constructing classroom assessments among teachers in the Johor Bahru District of Malaysia. The performance of the senior school teachers in the North Central, Nigeria in CALI seems reasonable on the ground that the issue of teachers' competencies and skills in classroom assessment is yet to neither become a topical one nor an issue of national interest like in some countries in Asia such as Malaysia and Iran.

The findings of the hypotheses tested are crucial for discussion. Considering the senior school teachers' skills in choosing appropriate assessment methods, the findings showed that teachers did not differ in their skills based on gender and educational qualification. This report contradicts that of Alkharusi (2011) as there was no significant difference among teachers in their skills in developing appropriate assessment methods based on gender and educational qualification. The finding is, however, in line with the findings of Chalachew and Terefe (2020) who reported no gender difference.

REFERENCES

- Akinyemi, T. F. (2017). Diagnostic assessment: Meaning, planning, implementation, and practice. In U. C. O. Kigho, E. O. Durowoju & D. A. Oyegoke (Eds.), *Perspectives in classroom assessment* (pp. 114-123). Lagos: International Educational Management Network.
- Alkharusi, H. (2008). Effects of classroom assessment practice on students' achievement goals. *Journal Educational assessment* 13 (4), 243-266.
- Amua-Sekyi, E. T. (2016). Assessment, student learning, and classroom practice: A review. *Journal of Education and Practice* 7 (21), 1-6
- Atkin, J.M, Black P. & Coffey, J. (Eds.) (2001). Classroom assessment and the national science education standards. Retrieved from <http://www.napedulcatalo/9847.html>
- Black, P. & Wiliam, D. (2018). Classroom assessment and pedagogy, *Assessment in Education: Principle, Policy & Practice*, DOI: 10.1080/0969594X.2018.1441807
- Botswana Federation of Trade Unions (2007). *Policy on education Botswana*. BFTU

- Cavanagh, R. F., Romanoski, J., & Fisher, D. (2005). Measuring student perceptions of classroom assessment: A paper presented to the Assessment and Measurement Special Interest Group at the 2005 Annual Conference of the Australian Association of Research in Education: Sydney. Retrieved from <http://www.aare.edu.au/05pap/cav0548>
- Chalachew, A. A. & Terefe, A. (2020). Teachers' self-perceived skills as the function of gender and teaching experiences in the classroom assessment: A study in high schools of South West Shewa Zone, Ethiopia. *International Journal of Progressive Education, 16* (1)
- Cresswell, J. (2016). System-level assessment and educational policy. Australian Council for Educational Research.
- Faleye, B. A., & Adefisoye, B. T. (2016). Continuous assessment practices of secondary school teachers in Osun State, Nigeria. *Journal of Psychology and Behavioural Sciences, 4* (1) 44-55 DOI:10. 15640/jobs.v4n1a5
- Gurski, L. F. (2008). Secondary teacher assessment and grading practices in inclusive classrooms. (A Master Thesis). Retrieved from [citeseerx.ist.psu.edu>viewdoc>do....](http://citeseerx.ist.psu.edu/viewdoc/do...)
- Guskey, T. R. (2010). Lessons of mastery learning, *Educational Leadership, 68*(2), 52-57
- Iddo, E. (2017). School-based assessment versus external assessment. In U.C.O. Kigho, E. O. Durowoju & D. A. Oyegoke (Eds.), *Perspectives on effective classroom assessment* (pp. 14-34). Lagos: International Educational Management Network.
- Jabbarifar, T. (2009). The importance of classroom assessment and evaluation in the educational system. Proceedings from ICTL'09: *The Second International Conference on Teaching and Learning*. INTI University College; Malaysia
- Kagete, P. M. (2013). Classroom 'assessment-for-learning' in secondary schools in Kenya. A paper presented at the Annual Conference of the International Association for Educational Assessment (IAEA) in Tel Aviv-Israel
- Katz, S., Earl, L., & Olson, D. (2001). The paradox of classroom assessment: A challenge for the 21st century. *McGill Journal of Education 36* (1), 13-26
- Kellaghan, T. & Greaney, V. (2001). *Using assessment to improve the quality of education*. Paris: UNESCO: International Institute for Educational Planning.
- Koloi-Keaikitse, S. (2012). Classroom assessment practices: A survey of Botswana primary and secondary school teachers (Doctoral dissertation). Retrieved from eric.ed.gov/?id=ED543182
- Manitoba Education, Citizenship and Youth. (2006). *Rethinking classroom assessment with purpose in mind: Assessment for learning, assessment as learning, assessment of learning*. Retrieved from <http://www.wncp.ca/media/40539/rethink.pdf>
- McMillan, J. H., Myran, S., & Workman, D. (2002). Elementary teachers' classroom assessment and grading practices. *The Journal of Educational Research 95* (4), 203-213
- Mertler, C. A., & Campbell, C. (2005). Measuring teachers' knowledge and application classroom assessment concepts: Development of the assessment literacy inventory. Paper presented at the annual meeting of the American Educational Research Association. Montreal, Quebec, Canada, April 11-15
- Mertler, C. A., & Campbell, C. (2005). Measuring teachers' knowledge and application classroom assessment concepts: Development of the assessment literacy inventory. Paper presented at the annual meeting of the American Educational Research Association. Montreal, Quebec, Canada, April 11-15
- Naim, H. A., Arulappen, D. R., Talib, R., Yusof, S. M., & Tunggak, B. (2016). Classroom assessment: Do teachers have the required competencies? *Man in India, 96* (1-2), 69-78. Retrieved from <https://www.researchgate.net/publication/198640143>
- National Council on Measurement in Education (2018). Classroom assessment standards. Retrieved from www.ncme.org/about/classroom-assessment/task-force-standards
- Nenty, H. J., Adedoyin, O. O., Odili, J. O., & Major, T. E. (2007). Primary teachers' perceptions of classroom assessment practices as means of providing quality primary education by Botswana and Nigeria. *Educational Research and Review 2* (4) 74-81 Retrieved from <http://www.academicjournal.org/ERR>
- Olina, Z., & Sullivan, H. J. (2002). Effects of classroom evaluation strategies on student achievement and attitudes. *ETR&D 50* (3), 61-75
- Oyegoke, D. A. (2017). Quality classroom assessment: Application and practice. In U. C. O. Kigho, E. O. Durowoju & D. A. Oyegoke (Eds.), *Perspectives on effective classroom assessment* (pp. 35-51). Lagos: International Educational Management Network.
- Pang, N. S. K., & Leung, Z. L. M. (2011). Teachers' competency in assessment for learning in early childhood education in Hong Kong. *Educational Research Journal 26* (2), 199-222.
- Perry, M. L. (2013). Teacher and principal assessment literacy. A dissertation submitted to the Department of Educational Leadership and Human Sciences, The University of Montana, Missoula, MT
- Price, J. K., Pierson, E., & Light, D. (2011). Using classroom assessment to promote 21st century learning in emerging

- market countries. Paper presented at Global Learn Asia Pacific 2011, Melbourne Australia
- Rebora, A. (2004). No Child Left Behind. *Education Week*. Retrieved from <http://www.edweek.org/policy-politics/no-child-left-behind/2004/9>
- Rodriquez, M. C. (2004). The role of classroom assessment in student performance on third international math and science study (TIMSS). *Applied Measurement in Education* 17 (1), 1-24.
- Sanders, J. R., & Vogel, S. R. (1993). The development of standards for teacher competence in educational assessment of students. Retrieved from <http://digitalcommons.unl.edu/burosteachertraining>
- Seval, E. K. (2015). Analyzing the effect of instruction based on classroom assessment techniques in perspective teachers' achievement. *Anthropologist* 20 (1, 2), 223-231
- Stefanou, C., & Parkes, J. (2003). Effects of classroom assessment on student motivation in fifth-grade science. *The Journal of Educational Research* 9 (3), 152-162
- Stiggins, R. J. (1998). Auditing the quality of classroom assessment training in teacher education programs. Retrieved from [citeseerx.ist.psu.edu>viewdoc>do...](http://citeseerx.ist.psu.edu/viewdoc>do...)
- Stiggins, R. (2007). Assessment through the student's eyes. *Educational Leadership*, 8, pp. 22-26.
- Tanner, H., & Jones, S. (2003). Marking and assessment. London: Continuum.
- The Federal Republic of Nigeria. (2014). *National policy on education*. Lagos: NERDC Press
- The World Bank (2013) SABER Country Report 2013 Ghana. Retrieved from <https://openknowledge.worldbank.org>
- U.S. Department of Education. (2004). No Child Left Behind. A toolkit for teachers. Jessup: ED Pubs. Education Publications Center
- Wilson, M. (2016). The importance of classroom assessment to curriculum. *NCME Newsletter*, 24 (2), 2-3. Retrieved from <https://ncme.org>about>classroom-assessment>
- Wolfel, R. L. (2009). Classroom assessment: The confusion of many voices. Retrieved from http://www.usma.ed/cfe/Literature/Wolfel_09.pdf
- Zhang, Z., & Burry-Stock, J. A. (2003). Classroom assessment practices and teachers' self-perceived assessment skills. *Applied Measurement in Education*, 16(4), 323-342.