Reconsidering the Validity of Zero Score's Grading Practices: Imperatives of Paradigm Shift in Assessment Strategies in Nigerian Universities

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Abstract

This paper examined the assessment practices of awarding zero scores as undergraduate students' grade in a course or test by Lecturers in Nigerian Universities and focused on the validity and usefulness of the practice, as students continue to reap the consequences without benefit. These were with a view to benchmarking stable procedure and ensuring stability and validity in university grades. Hence, the paper explored the concept of zero score measurement, the multidimensional impact of zero score on students' academic performance and interpretations of zero scores in educational measurement. The assessment and grading issues for undergraduate instruction were examined from the perspective of validity and policy practice. An alternative conceptualization of zero scores as grades, was proposed and explored. Further, the paper concluded that giving zeros as an academic measurement is inequitable and produces failure rather than performance. It was recommended that Lecturers in Nigerian Universitiesneed to adopt technical testing principles to be more relevant to the nature of classroom assessment decision making.

Keywords: Zero Score, Grading, Validity, Assessment and University.

Introduction

Hitherto, it is not uncommon for university Lecturers to give zero scores for late or incomplete assignments. Majority among the university Lecturers deem a score of zero acceptable for noncompliance of individual and group assignments or projects. Unfortunately, few university Lecturersquestion both the validity and usefulness of the practice awarding zero scores for students' noncompliance of academic work, as students continue to reap the consequences without benefit (Ibrahim, 2022). Suffice to say that in testing fair is fair, if the test scores create or maintain an advantage for one group over another, then the validity of their test-based inferences is threatened (Ibrahim, 2019). For many years Lecturers have followed grading procedures learned from their teachers without evaluating the effectiveness or appropriateness of the policies. Any grades including zero score should measure academic learning. Receiving a zero for not putting your name on a paper or failing to do homework does not reflect a student's lack of knowledge. Such issues are behaviour responses not academic. Zeros promote failure rather than the student gaining more knowledge. For instance, three 100's averaged with one zero gives a score of 75. The zero forces failure and is not an evenhanded measurement of learning. Anything that is inequitable is unjust. If it is unjust, it is unethical. Therefore, giving zeros as an academic measurement is unethical (Ibrahim, 2022;Guskey, 2018). Further, it is believed that raising questions about zero score procedures could induce powerful emotional responses from university Lecturers. Many Lecturers resent directives regarding their grading procedures. Even when university policies exist, Lecturers often deviate from the prescribed standard to reflect the Lecturer's personal preferences for evaluating students. This explains why Friedman (2018) buttressed the fact that grading policies usually develop from teachers' personal school experiences without questioning or considering the validity of the process. From a policy perspective, much of the literature has shown that most test specialists agree that zero scores are a measurement of learning and should reflect academic achievement. However, many grading policies promise zeros for things like not doing homework, having incomplete or late assignments, being tardy, coming to class without books, chewing gum, or failing to follow through with any other required classroom detail. Unfortunately, many Lecturers combine behaviour issues with students' academic measurement. Giving zeros for behaviour issues is an inaccurate reflection of the student's academic performance. Academic measurement should only measure learning. Behaviour management policies should govern conduct (Dockery, 2019; Friedman, 2018).According to Guskey (2018), giving zero scores as an academic measurement is inequitable and produces failure rather than performance. Researchers (Marzano, 2020; Brookhart & Nitko, 2018) who support this statement believe that zero grades can put students in too deep in a hole, making it mathematically impossible for them to pass, which may cause them to disengage from the learning process. They

believe that teachers should always give students a grade of at least 50%, so they can feel as though they can catch up. Also, giving a student a grade of zero is an oxymoron of sorts and not an accurate representation of what a child can do academically (Ibrahim, 2017).On the other hand, researchers (Guskey, 2018; Ibrahim, 2017; Smith, 2013) believed that "no-zero" grading policies send the wrong message to students.

At the end of the day, "no-zero" grading policies are not an accurate representation of how life works, well at least for most people. In the real world, one have to earn everything whatever s/he gets. Some scholars also believe that "no zero grading" can artificially inflate student grades, which can hide their academic deficiencies and socially promote students who do not know the material. Against this backdrop, the objective of this paper is to examine the validity of the procedures Lecturers employ in awarding zero scores to students' academic work in the university in order to provide a groundwork for the future directions in research on the concept of zero score in educational measurement; particularly, since the literature on the multidimensional nature of zero scores currently is sparse and limited in the country. Thus, the significance of this paper is to provide an avenue for stakeholders in education to use zero grades more effectively in helping identify student academic achievement and non-cognitive behaviour across all Universities to help drive decisions on how to direct the limited resources of Universities to the students most in need.

Concept of Zero Score in Educational Measurement

Over time, researchers (Sadler, 2020; Friedman, 2018; Guskey, 2018; Ibrahim, 2017; VanDeWeghe, 2014;) in the field of Psychometrics especially Tests and Measurement have given various definitions, notions, meanings, and concept of zero score (0) as a mathematically imbalanced measurement. VanDeWeghe (2014) conceptualized it as nothingness, but as a significant number that has the meaning of nothing but really means everything since it is perhaps the most used number in the math curriculum. Sadler (2020) defined zero score as a number in the numeral system, which is used to represent the absence of object or quantity. For instance, each student learns the number 0 from primary school, learning it with the number system for counting, mathematically, with negative numbers and whole numbers.In the same vein, Ibrahim (2017) referred to zero score as the absence of a measurable quantity. For example, every student in every classroom across the world knows that if they get a zero on their math homework or on a math exam that they are in big trouble. The zero, in this case, is synonymous with failure as they were unable to solve problems correctly out of all of the questions that were asked. To make such a statement would require that one assume a score of 0 to actually represent no amount of the characteristic. In general, if a person received a score of 0 on a spelling test, we would not interpret the score to mean that the person had no spelling ability. The same is true of any other test. We can make this statement because a measurement of 0 actually indicates no height. That is, there is a meaningful zero point. Further, Guskey (2018) viewed it as the "academic death penalty" (p.14).

A grade of zero on a 100-point scale, a mark that spells disaster for a student's class average. It is such an extreme score in a percentage grading system.But the zero is used in many more places than just the classroom grading system, it is part of our whole society. Prices of things in shops, license plates, numbers to call, numbers in your bank account when you are broke. But all fun aside zero is a significant number that has the meaning of nothing but to us really means everything since it is perhaps the most used number in the math curriculum. From the above delineation, there is no doubt that zero score is an important and essential part of number system. Students also learn in their studies that zero score has some special properties that distinguish it from the other digits. For example: (i) Adding zero to a number does not change the number, $5 + 0 = 5$; (ii) Multiplying a number by zero results in zero, $5 \times 0 = 0$; and (iii) One cannot divide a number by zero, $5/0$ is not allowed (Ibrahim, 2017).

Validity of Awarding Zero Scores to Testees

Validity is an important theoretical concept. Validity is related to something being right or wrong. According to Afolabi (2012), validity is the single most important characteristic of a test; as it simply means truthfulness: does the test measure what it purports to measure? Are the conclusions from test results justified by evidence? Validity is the agreement between a test score or measure and the quality it is believed to measure.In this paper, it refers to whether the practiceof awarding zero scores in a course or test byLecturers in Nigerian Universities is right or wrong. Hence, validity goes through all the aspects of developing and implementing the assessment process. It starts with the question of how the assessment process determines what is to be assessed and relies on the information to which the assessment

is applied. The extent of the conclusions based on the assessment results is meaningful, useful and appropriate for considering them as an important aspect of the process. Assessment is a part of the context and its validity is associated with using a particular assessment in a particular context with a particular group of candidates. Further, validity also refers to the appropriateness of inferences drawn from test scores or other assessment instruments (Ugodulunwa, 2015). According to Rudner and Schafer (2002), test validity refers to the degree with which the inferences based on test scores are meaningful, useful and appropriate. This definition implies that validity is expressed in degree from low, moderate to high. It is not measured but inferred from available evidence and depends on many types of evidence.Similarly, Ugodulunwa and Wakjissa (2015) observed that the traditional conception of validity is fragmented and incomplete because it fails to take into account evidence of meaning of scores as a basis of action and the social consequences of the use of score. Ugodulunwa and Wakjissa (2015)views it as a unified concept, which lays more emphasis on the use of a test. He identified six aspects of validity that are implicit in the notion of validity as a unified concept. The six aspects are content, substantive, structure, generalizability, external factors and consequential. The six aspects are viewed as interdependent and complementary forms of validity evidence and not separate entities. These imply that evidence for assessing validity should include evidence of content relevance and representativeness, extent to which scores are consistent with theoretical predictions, evidence on extent to which scores and their interpretations generalize to and across groups, settings and tasks. Other evidence are the fidelity of scoring structure to the structure of the construct being assessed; evidence from criterion-related studies, and consequential aspect of test use and score interpretation especially the issues relating to bias and fairness.

It is clear from the views of Messick (1996) that one cannot validate a test but can only validate the inferences that are drawn from students' scores in the test as observed by Killen (2003). This point is buttressed by Cronbach (1971) who raised the point from a more psychological perspective that it was the interpretation of test scores that is validated rather than the test per se. This approach to understanding the concept of validity has evolved into Kane's (2013) interpretive argument. Item invalidity and ambiguity were no longer the emphasis in validity studies since the focus of validity was now on the interpretation.As a corollary to the above, Afolabi (2012) summarized the validity of awarding zero scores to testees in an achievement or a cognitive test as follows:

> *"The award of zero score to a testee as a result of incorrectresponse to objective items is defensible, but not so in essay items, requiring free response and many dimensions to an item. Afolabi (2012) argued thatthe absence of a true zero in educational measurement makes the interpretation of a zero score ontologically inconsistent. If the marking that gives rise to a zero score derives from the criteria of relevance and appropriateness, the award of a zero score to responses that fall within a continuum of permutations of these criteria would be non-discriminating and non-inconclusive. It may also boil down to the interrogative quality of the questions asked. The award of zero aggregate score to students in essay tests, therefore, casts doubt on the validity, not only of the items but also on the scoring system"* (p.43-44).

The Paradox of Zero Score in Educational Measurement

The objective of educational measurement is not just to measure a particular attribute. Rather, it is done to evaluate to what extent different educational objectives have been achieved. In case of educational measurement,the raw scores obtained by scoring are meaningless, as such scores do not tell what examinees can or cannot do, what they are or are not like. This is because scoring is a process of utilizing a number to represent the responses made by the test takers. Hence, to give them meaning begins with conversion to norm-referenced or criterion-referenced scores. The simplest process is to convert them to percentiles or one of the other standard scores such as z-scores, T-scores, stens or stanines. These give us scores having significance through comparison with the mean score of a representative sample of people called the 'norm group'. Standardized scores enable us to make interpretations and comparisons and to calculate averages or differences, which are all based on understanding the technical properties of scales. Normative data enable us to compare someone's score with those of others and to take account of factors such as age, gender or other aspects of background (Aggarwal, 2014; Sidhu, 2012). So raw scores are just a beginning and, being meaningless, should never be communicated to untrained people (Ibrahim, 2017).

In measurement science,there are four main types of scales used for educational and psychological measurement namely: (i) Nominal or Classificatory Scales; (ii) Ordinal or Ranking Scales; (iii) Interval Scales; and (iv) Ratio Scales.

In the light of the context of this paper, only Interval Scale that is relevant to the context of this paper. Specifically, the Interval Scale has the characteristics of both nominal and ordinal level of scales. The additional characteristic it possesses is quality of interval. It means the distance or difference between any adjacent class on the scale can be known numerically. The intervals on the scale are the same; it is a constant unit of measurement. Accordingly, this consistency of intervals is lacking in two previous level of scale (i.e., nominal and ordinal scales) mentioned above. In other words, the intervals of the scale, that is, the difference between two consecutive points on the scale are equal over the entire scale. For example, the difference between 6 cm. and 7 cm. is equal to the difference between 11 cm. and 12 cm. Thus interval scale is also known as equal-interval scale (Aggarwal, 2014).

Further, interval scales have an arbitrary zero. That is, there is no absolute zero-point or unique origin. With interval scales the measurement units are equal. Interval scales show that a person or item is so many units larger or smaller, heavier or lighter, brighter or duller, and so on, from the other (Sidhu, 2012). Also, it must be emphasized herein that in educational measurement, there is no absolute zero, unlike in physical sciences the concept of absolute zero is well-conceived. For example, zero inch means absence of length, zero pound means absence of weight. But in educational measurement, it is difficult to visualise a true zero in any scale used (Aggarwal, 2014). For example, a student who scores 0 (zero) in Mathematics does not imply that s/he knows nothing in mathematics. In this case, concept of zero is meaningless. In a similar way, an Intelligent Quotient (I.Q.) of 0 (zero) conveys no meaning. Due to the absence of a true zero-point, we cannot say that a child with an I.Q. of 120 is twice as bright as a child with an I.Q. of 60. In the same vein, we cannot say that a child who scores 100 in a test of Mathematics knows twice as much as a child who scores 50 in that test. In psychological and educational measurements, although there are not true zero points of reference, yet, it is assumed that the interval between two consecutive points is equal (Faleye, 2012). Here, in this paper, a true zero point means complete absence of an attribute. For example, a zero point in a centimeter scale indicates complete absence of length or height. A zero point in the ratio scale means that the object has none of the properties being measured (Faleye, 2012).Against this backdrop, and especially in educational measurement, there is no absolute zero point. It is relative to some arbitrary standard. For example, a student has secured '0' in a test of English language. It does not mean that s/he has '0' knowledge in English language. This is so because s/he may secures 30 in another test, say Arabic or French language, which is easier than the first one. As the zero point is not fixed so we cannot say that a test taker with a score of '60' has doubled the knowledge of an examinee with a score of '30'. To corroborate the view expressed above, Afolabi (2012) stated that in educational measurement the units are not definite, so we may not obtain the same value for every person. This is because the test vary in their content and difficulty level. Therefore, one individual may perform differently on different tests and different individuals may perform differently on one test. It means we cannot measure the whole of an attribute of an individual. Generally, the scores obtained from a measurement are observed scores which contains measurement errors. So that true score is infinite and unknown.

What Does It Mean to Have a Zero on a Test?

Contextually, zero score does not connote or **represent an absence of a characteristic, trait, knowledge or achievement. Hence, it is safe to say** a zero on a test is arbitrary; it does not mean that the test-taker has an absolute lack of the trait being measured. **In an ordinary parlance, what this means is that when a student or an examinee obtains a zero score in an examination, it does not indicates no achievement at all on the part of the student or the examinee. But, it implies that the test or examination does not include or cover many simple questions that could be rightly and correctly answered by the examinee. As a point of fact,** McMillan (2013) words are apposite here:

> *"We sometimes tell our students that 0% score on an exam does not really mean that they have no knowledge of the subject matter; rather, the exam simply did not sample the knowledge they do have" (p.12).*

In the same vein, Miller et al. (2009) buttressed this interpretation of zero score when they stated that:

> *"A student who receives a score on a history test does not have zero knowledge of history; there are probably many simple questions that could be answered correctly but were not included in the test. A true zero point in achievement, where there is no achievement at all, cannot be clearly established. Even if it could, it would be impractical to start from that point each time we tested. What we do in actual*

practice is assume a certain amount of basic knowledge and measure from there. This arbitrary starting point, however, prevents us from saying that a zero score indicates no achievement at all or that a score of 100 represents twice the achievement of a score of 50. Because we are never certain how far the zero on our test is from the true zero point (i.e., the point of no achievement), test scores cannot be interpreted in the same way as physical measurements. We can speak of more or less of a given characteristic, but not twice as much as or half as much as" (p.461).

In juxtaposition, Walker (2016) illustration shows a reflection that:

"A student who consistently makes high marks falls into some hard times for a couple of weeks, in fact, she did not turn in one assignment. It was recorded as a "0" and her grade in the course reflected that one lapse. Another student has received low marks on assignments, although while he is showing continuous growth, he continues to receive "Fs" on his assignments that are translated into "0s." When his scores are calculated, the "Fs" do not reflect what he learned and his final grade is a "Fail." Another student has turned in fewer than half of the assignments and the grades for the missing assignments are "0s." Both she and the young man mentioned above received the same final grade of "F," yet clearly the male student may have learned a great deal more than the female student" (p.3).

Similarly, Wormeli (2021) illustrated the effect of a zero score on a student's grade and subsequent academic achievement as follows:

Table 1.
Negative Impact of a Zero on the 100 - Point Grading Scale

Examinee Grade	Test scores for Six Tests	Percentage	
I	0, 100, 100, 100, 100, 100	83	C+
II	60, 100, 100, 100, 100, 100	93	B+

Source: Wormeli, 2021

From Table 1, it can be seen that out of the six test scores obtainable from the six test hypothetically conducted, the first test-taker scores zero in one of the six tests. No doubt, zero score reduces the total percentage of the test-taker in the six test on aggregate, while the second test-taker's scores were aggregated, it resulted in accurate and correct percentage since s/he did not have any zero score in the six tests. Further, Table 2 compared negative impact of zero on the - point and 100 point scales. The results revealed that one zero score can have a devastating effect on a grade and seldom spurs the student on to do better. The results are presented in Table 2 below.

Table 2
Comparing the Negative Impact of Zero on the Point and 100 Pointscales

Examinee Grade	Test scores for Six Tests	Percentage	
I	4.0, 4.0, 4.0, 4.0, 4.0, 0	83	C+
II	100, 100, 100, 100, 100, 0	83	B+

Source: Wormeli, 2021

To sum up, Harper and Harper (2012) explained that one of the sources of confusion about marks is that "0" is ambiguous. It actually means "the student could not answer any of the questions in the particular examination satisfactorily" (Harper & Harper, 2012; p. 310-311). But it is too often assumed to mean, "the student knows nothing about the subject" (Harper & Harper, 2012; p.311). The problem arises because it is then assumed to be an absolute measure of the student's ability or achievement in the entire subject of the examination. This is a false and quite misleading assumption.

Continuous Assessment as a Zero Score Paradigm Shift

In awarding grades to students' academic work especially in Nigerian Universities, Continuous Assessment (CA) sits at the heart of the learning process, as it provides observable evidence of learning, determines students' progress and demonstrates understanding of the curriculum. CA information provides the basis for sound decision making regarding teaching and learning in the Universities, while the CA process reveals what a student understands, knows and can do. Hence, CA is a process of gathering and documenting information about the achievement, skills, abilities, and personality variables of an individual (Ibrahim, 2021; Ibrahim, 2020). This explains the reason Afolabi (2012) conceptualised CA as an evaluation device which makes use of a variety of instruments to determine a student's performance, in a systematic way in the: (i) Cognitive, (ii) Affective, and (iii) Psychomotor domains of behaviour for the purpose of improving her/his performance (Afolabi, 2012). The cognitive aspect which deals mainly with rational, intellectual thought processes and concerned with knowledge outcomes, information, intellectual skills and abilities. The affective aspect which emphasizes attitudes, interests, values, appreciations, feelings and emotions as well as modes of adjustment. The psychomotor aspect which is concerned with muscular and motor skills, the manipulation of materials, objects, and activities which require muscular coordination (Afolabi, 2012). Notably, each of the above three domains of learning has content and process objectives. Thus, Lecturers cannot award zero score for, say, late submission of orincomplete assignment in a course to students or when a student fails to follow through with any other required classroom detail. Apparently, this is a behavioural issue and should not be attributed to cognitive or academic work. Unfortunately, experience has shown that many Lecturers combine behaviour issues with a students' academic measurement. Giving zeros for behaviour issues is an inaccurate reflection of the student's academic performance as academic measurement should only measure learning. As a point of fact, the goal of CA is that the final grading of a student in the cognitive, affective and psychomotor domains of learning systematically takes account of all his/her performances during a given period of schooling. With this, there is no way a student would be awarded zero score as his performance in tests, assignments, projects, laboratory works, oral examinations, field experiences and other educational activities during a given period (i.e., semester, session or entire period of an educational level). In other words, CA as a method of obtaining information on what a student gains from schooling in terms of knowledge, industry and character development abhors zero score in principle if it is properly implemented as all students, irrespective of their background are carried along in all facets of knowledge, industry and character development (Ibrahim, 2020).

According to National University Commission (NUC) Benchmark Minimum Academic Standards (BMAS) (2007), the award of the degree is based on the cumulative records of grades obtained. Hence, any meaningful CA procedure that could be considered for adoption by the University must follow what BMAS enunciated. It is a common axiom that one cannot build something on nothing. In this regard, the BMAS is the foundation on which the quality assurance in educational assessment is built. In other words, BMAS (2007) emphasised the weighting of CA should be between 30% and 40% of the final grade, course by course. The final grade of a student in a semester consists of two parts: (a) Final assessment grade; and (b) All assessments prior to final examination. These will include term papers, occasional test, laboratory work and assignment. The award of the degree is based on the cumulative records of grades obtained (BMAS, 2007). Further, the assessment of students' progress can be done through a combination of the following quality assurance methods namely: written essay examination; written objectives examination; individual and group projects. Other includes term paper/presentation; seminar presentation; oral examination and field experience assessments (BMAS, 2007). However, the above list is considered restrictive and the following additional quality assurance techniques have been included viz: open book examination; laboratory performance and take-home examination (Ibrahim, 2017). In all quality assurance techniques mentioned above, the tradition is that the Lecturer is the assessor. However, the use of student's peer-group assessment can be adopted (BMAS, 2007). Other quality assurance implementation procedures of CA are observations, questionnaires, inventories, interviews and projects.

Also, among others are group work, checklists, rating scales and socio-gram (Afolabi, 2012; Dibu-Ojerinde, 2012). Specifically, any CA standard designed for higher institution must minimally achieve the following quality assurance procedures in principle and in practice namely:CA should be orderly, planned, and predictable process. The students have a right to know in advance not only that they would have, say, three tests before the final examination for the term, semester, session or whatever is the duration of a programme, but they also ought to know whether all the tests will have the same weight or not, and what scores are thereby represented. In addition, CA should not be haphazard or random. That is, CA must have an operational blueprint that defines what is to be done, when it is to be done, and how it is to be done. Specifically, the number of tests, examinations, assignments (to mention only a few), to be done must be specified in advance, as well as the period or time when such tests or examinations will be conducted. Further, the nature of the measurement instrument should be specified. Included in the plan of operation are the weights of such tests vis-à-vis the total score for each subject or course. For instance, the student has a right to know the results of any tests s/he has taken as well as the other recordings on her/him. Most importantly, the CA results must be released within few days; and the conduct of CA should start three weeks after resumption and end two weeks before the commencement of final semester examination. Each Department must compile the CA scores of all courses and submit same to the Vice Chancellor through the Dean of the Faculty on or before two weeks to the commencement of Semester Examination. A copy of such document should be kept by the Dean of the Faculty (Ibrahim, 2018a).

There should always be a Marking Scheme, this is because it is not after a test has been given or administered that the instructor will decide or consider what marks to allocate to each test item and hence to the whole test.*Some Lecturers have the habit of hoarding students' test scores, or feel they are doing the students a favour by promptly releasing their test scores.* This should not be encouraged.No Lecturer should add mark to CA score(s) in order to upgrade student final mark after the Department had made CA submission to the Vice Chancellor.All CA scores must be released to the students within few days; and the conduct of CA should start when enough grounds has been covered in each course and end two weeks before the commencement of final semester examination (Ibrahim, 2018b). Keeping above quality assurance procedures in mind, CA should be pre-announced at least two weeks in advance if proper objective of systematic periodic tests is to be realized. Against this backdrop, CA requires the use of the whole spectrum of objective testing and other assessment instruments. This means it should be orderly, planned, predictable process. It should not be haphazard or random. It must have an operational blueprint that defines what is to be done, when it is to be done, and how it is to be done. Specifically, the number of tests, examinations, assignments (to mention only a few), to be done must be specified in advance, as well as the period or time when such tests or examinations will be conducted (Ibrahim, 2018b). Further, the nature of the measurement instrument should be specified. Included in the plan of operation are the weights of such tests vis-à-vis the total score for each subject or course. The testees have a right to know in advance not only that they would have, say, three tests before the final examination for the term, semester, session or whatever is the duration of a programme, but they also ought to know whether all the tests will have the same weight or not, and what scores are thereby represented. It is not after a test has been given or administered that the instructor will decide or consider what marks to allocate to each test item and hence to the whole test. That will be disastrous, unethical and unprofessional (Ibrahim, 2020). The basic emphasis here is student feedback.That is, diagnostic and prognostic dimensions of CA should be appreciated. For instance, the student has a right to know the results of any tests s/he has taken as well as the other recordings on her/him. Noteworthy, each semester's work should be assumed to constitute 100 as maximum scores. Out of this, the within-semester should have a proportion, as well as the end-of-semester examination and the affective and psychomotor scores.It must also be borne in mind that this weighting is for a semester and there are two semesters (e.g., First & Second Semesters or Harmattan &Rain Semesters) and that the entire year's work at University equally carries 100%. This must be reasonably shared out between the terms (Ibrahim, 2018a).According to Ojerinde & Falayajo (2008), this approach is taken in order not to unduly penalize a student who might be poor at the beginning but has been making a steady progress and so reaches a high level of performance at the end of the course. At the same time, it discourages complacency on the part of the initially brilliant student. Every present assessment will take cognizance of all previous assessments and will sample not only the ability of students in the subject or course areas, but also in other aspects of behaviour.

Implications for Academic Knowledge and Non-Academic Behaviours
According to Walker (2016), the purposes of grading are to: (i) Inform instructional decisions; (ii) Document

both students' and teachers' progress; and (iii) Provide feedback to the students, parents, and teachers about what has been learned and what students are able to do with that knowledge.If these are the purposes of grading, what role does and should a zero score play in the assessment of what has been learned? In answering the above question, several researchers and scholars (Marzano, 2020; Brookhart & Nitko, 2018; Brookhart, 2014; VanDeWeghe, 2014; McMillan; 2013), espoused that giving students a zero lets them too easily off the hook, seldom serves as a motivator for them to do better and is not an accurate reflection of what has been learned. While students do need to be responsible and accountable for their work, assigning a zero skews the grade and it tends to be inaccurate. Basically then, this suggests the zero scores kill motivation. Two zeros, whether just or unjust, can destroy a good average as we have seen in the Wormeli (2021) hypothetical analysis above. According to Dockery (2015), zero scores produce discouragement and certain failure for those examinees lacking self-discipline and parental support. Accordingly, parents of some students report that much of their child's homework is completed but the student fails to give it to the teacher. Many students fail courses due to a lack of organizational abilities rather than defiance or laziness (VanDeWeghe, 2014; Christian 2014). When teachers give zeros for homework assigned for extra practice rather than for academic evaluation, they are using grades as a behaviour management tool. Recording a failing grade for assignments not intended for academic evaluation is not reasonable. Assigning zeros for homework issues is especially inequitable for students with organizational issues and dysfunctional homes that lack parental support (Ibrahim, 2018b; Smith, 2013).Marzano (2020) claimed that the grade of a zero does not benefit the advancement of a child's education. Students through either laziness or avoidance, take zeros as an easy way out of doing the assignment. Students often avoid assignments like research papers, essays, and reports by taking a zero instead of doing the work. The student barely passes to the next grade without having gained these vital learning experiences. Students with organizational problems do not increase performance skills through the automatic zero. Neither does the automatic zero help students who do not understand the assignment gain the knowledge intended. In fact, the automatic zero threatens failure and produces discouragement. Further, Ibrahim (2018a) expressed that zeros promote failure rather than the student gaining more knowledge. For instance, three 100's averaged with one zero gives a score of 75. The zero forces failure and is not an evenhanded measurement of learning. Anything that is inequitable is unjust. If it is unjust, it is unethical. Therefore, giving zeros as an academic measurement is unethical.According to Ibrahim and Iliyasu (2021), equitability in the sense that students are assessed using methods and procedures most appropriate to them. Put simply, a fair assessment considers the learners' needs and characteristics, and any reasonable adjustments that need to be applied to take account of them. That means for assessment to be fair, the learner must be adequately informed and is able to participate in the assessment process, and agrees that the process is appropriate, since fair and equity is a concern for educators, students and parents.

A fair assessment should not discriminate between learners, except on the grounds of the ability being assessed, especially in the high-stakes examinations like university examinations, which are expected to be standardized. Despite their questionable psychometric properties, this researcher believes that zero scores have a powerful influence on students, especially at both the secondary level and tertiary level. Strong evidence shows that zero scores have particularly important effects on students' attitudes, behaviours, and motivation to learn (Ibrahim, 2019; Brookhart & Nitko, 2018; Brookhart, 2014; McMillan, 2013).Therefore, it is safer to say that Lecturers usually use zero scores to motivate students to do better. Ideally, zero scores provide students with formative information that they can use in efforts to improve their performance. But zero scores also play a major role in many high-stakes educational decisions that profoundly affect students' lives. Because of their significance in the Unified Tertiary Matriculation Examination (UTME) admissions process, many students work hard to attain high grades in the most rigorous courses, which spur most of them to be admitted in higher institutions in the country.

Conclusion
Based on the strength of literature reviewed in this paper, it is evident thatthe award of zero aggregate score to students in a course or any academic work casts doubts on the validity, not only of the course but also on the scoring system employed in assessing students' academic work. Further, it seems reasonable to conclude that receiving zero scores in any course in the University by students does not implies that students have zero knowledge of the subjects under testing; but it implies that the assessment did not cover such aspects that could be answered correctly by students as they were not included as items in the assessment. However, as receiving zero scores does not reflect what has been learned and what examinees are able to do through the knowledge acquired overtime, zero scores have powerful

influence on students' attitudes, behaviours, and motivation to learn.

Recommendations

Therefore, the following are recommended based on the discussions in this paper namely:

(i)   Reconsidering the habit of giving zero scores by Lecturers in the Universities in the country needs to be encouraged as awarding zero scores invalidates both the course and the scoring system used to assess the students.

(ii)   Universities should adopt quality assurance procedures embedded in BMAS which Lecturers should follow as strategies to construct, conduct and administer CA Semester-by -Semester, and Session-by-Session throughout the country.

(iii)   Lecturers need to use logical consequences rather than a grade reduction when work is not completed or responsibilities are not fulfilled, as there are several possible alternatives to giving a zero.

(iv)   If the Lecturer must give a failing grade, give a grade no more than ten points lower than the last passing grade to make the measurement equitable.

(v)   University wide grading policies should govern grading procedures for assignments, tests, and homework. The Lecturer's guidelines should include a no-zero policy.

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