

Assessing Teachers Ability on Test Construction and Economics Content Validity in Nasarawa State Senior Secondary Schools, Nigeria

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Abstract

The study assessed teacher ability on test construction and Economics content validity in Nasarawa State senior secondary schools, Nigeria. The content analysis and co-relational research design were adopted for the study. A sample of 95 Economics teachers was randomly selected from public and private senior secondary schools in Nasarawa north. The instrument for data collection was called Teachers Ability Questionnaire on Test Construction" (TAQTC)" contained 33 items and profoma was used to assessed previous test questions. TAQTC was validated by experts who yielded 0.78 indexes and Cronbach alpha was used to determine the reliability of the internal consistency which gave 0.82. Three research questions were answered using mean and standard deviation while two null hypotheses were tested using independent t-test at 0.05 level of significance. Findings of the study revealed that there was a significant mean difference in ability between professional teachers and non-professional teachers of Economics in test construction and there was a significant mean difference in ability between public school teachers and private school teachers of Economics in content validity among others. The study recommended that: conference/workshops on items construction should be organised to improve teachers' ability on valid test construction and proper evaluation routine by state government evaluators to ensure the reliable and valid content for sustainable development of the subject cover in secondary schools.

Keywords: *Teachers Ability, Test Construction, Economics, Content Validity*

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Background to the Study

The quality of a teacher-made test is closely linked with its ability to provide the kind of information needed regarding students' performances. A well-written test allows the teachers to accurately and consistently measure students' mastery of specific contents taught in class. Likewise, poorly construction of test items can lead to inaccurate measurements of learning and provide false information regarding student performance as well as instructional effectiveness (Close in Ngozi, Chika, and Aloysius, 2013). This inaccurate measurements or error occurred in three categories: the first "errors inherent in the instrument, "errors in the use of the instrument and "errors emanating from the responses of test takers' (Anikweze, in Salihu and Sakks, 2018). Crooker and Algina (2008) further gave a description of the test to be a standard procedure for obtaining a sample of behaviour from a specified domain. Test construction ability and quality are fundamental tools required by any educator if teaching and learning goals are to be achieved.

For a test could be valid and reliable it must be in agreement with the content objectives embedded in school curricula for the learners. Thought, the professionalism of the teachers subject matters, example a teacher with sound educational qualification such as Nigerian Certificates in Education (NCE), Bachelor degree in Education (B.ED) are they professional teachers are knowledgeable in test construction in line with cognitive domain of educational objectives of Economics Content validity while those with National Diploma (ND), Higher National Diploma (HND) and Bachelor degree in Economics (B.Sc) are they un-professional teachers are un-knowledgeable in test construction in line with cognitive domain of educational objectives of Economics Content validity (Salihu, 2018).

Content validity refers to the extent to which a test measures what it intends to measure and nothing else (Anikweze, 2015). It can be seen as the extent to which the items on a test are fairly representative of the entire domain the test seeks to measure. When a test has content validity, the items on the test should represent all the range of possible items the test should cover. Teachers who served as facilitators of knowledge must have the ability in measuring learning achievements with accuracy. Likewise, the tools with which these learning achievements are measured must also be valid, reliable and accurate to measure what the teacher intends to measure and evaluate (Anikweze, 2015). These cannot be possible without teachers themselves being competent in the art and science of handling the tools; which are the tests and examinations (D'Agostino in Rufina, Hamman- Tukur, & Stephen, 2015). However, teacher-made tests are tests constructed by the classroom teacher to assess pupils/students and can be either of the essay (short or extended) or the objective format (true/false, multiple choice type, completion, arrangement, and matching). They do not possess any psychometric properties. Secondary schools in Nigeria today were characterized by professional and unprofessional teachers into the teaching profession. Teaching became a means to an end for many as such it was used as a stepping stone to greener pasture. The consequence of which was the influx of incompetent teachers in the schools' system thereby resulting in persistent student failure in public examinations (Hamafyelto, Hamman-Tukur, & Hamafyelto, 2015).

Teachers' ability is specified by standards for educational assessment of students as adopted by UNESCO (2009). This is a developmental model about the generic abilities or factors of the educator that aim at identifying the broad ability of the teachers in the art of teaching and learning processes across grade levels. It also includes content areas showing the aspects of each ability as it typically develops from beginning to developing and to advance performance in teaching in secondary (UNESCO, 2009). According to Lucas and Olaniyan (2010), secondary school is that level of education where children receive the basic education that enhances their advancement to higher professional and academic pursuit. The Federal Republic of Nigeria (FRN, 2014) in her national policy on education described the secondary school as education children receive after primary education and before the tertiary stage. Economics is one of the senior secondary school subjects that require a systematic assessment to ascertain students' basic knowledge, skills, and understanding of the concepts and the nature of economic problems in any society. According to Robison in Salihu and Umar, (2018) defined Economics as a science which studies human behaviours as the relationship between ends and scarce means which have alternative uses.

The standards express specific expectations for assessing knowledge or skills that teachers should possess in order to perform well in their evaluation effort (Ololube, 2008). According to Sanderson and Vogel in Salihu and Umar, (2018) the standards call on teachers to demonstrate skill at selecting, developing, applying, using, communicating and evaluating students' assessment information and students' assessment practices. Okpala (2002) noted that few teachers in Nigeria know that good teaching is characterized by assessments that motivate and engage students in ways that are consistent with their philosophies of teaching and learning and with theories of development, learning, and motivation. Furthermore, Schafer (2002) asserted that most teachers want to use constructed-response assessments because they believe this kind of testing is best to ascertain students' understanding. McMillan (2000) has observed that what is most essential about assessment is to understand how general, fundamental assessment principles and ideas can be used to enhance students' learning and teacher effectiveness. It is against this background that this study was necessitated to assessing teacher ability on test construction and economics content validity of teacher-made in Nasarawa state secondary schools, Nigeria.

Statement of the Problem

Over the years, test construction in agreement with the Economics content validity in secondary schools has been an obstacle to the sustainable development goals of students' achievement. This is because the lack of test construction skills by teachers might result in the false assessment of students' achievements, poor grammar/sentences, and lack of proper monitor by the evaluators among others. These skills help teachers to structure items to elicit clear and concise answers from students; construct tests that will be appropriate for learners of different ages, abilities, and gender; set tests so that students finish within time and do not grow scared of tests but reversed is the case. Thus, this study contributed significantly on teacher ability on test construction and Economics content validity in Nasarawa State senior secondary schools, Nigeria

Research Questions (RQ): The following research questions guided the study:

- RQ1:** What is the mean ability different between professional teachers and non-professional teachers on economics test construction?
- RQ2:** What is the mean ability different between private school teachers and public school teachers on economics test construction?
- RQ3:** What is the content validity of teacher-made test questions set by Nasarawa state senior secondary school teachers of Economics?

Research Hypotheses (H_0): Following research hypotheses were tested at 0.05 level of significant via Two-tailed:

- H_{01} :** There is no significant difference in the mean ability of test construction between professional teachers and non-professional teachers of economics
- H_{02} :** There is no significant difference in the mean ability of test construction between private school teachers and public school teachers of economics

Literature Review

Teacher Ability in Tests Construction

In a review of empirical studies, Frank, Isaac, and Francis (2019) carry out an investigation on teachers' test construction skills of Senior High Schools (SHS) teachers in the Cape Coast Metropolis. Using a qualitative document analysis, samples of End-of-Term Examination papers in Integrated Science, Core Mathematics and Social Studies in three selected SHS in the Cape Coast Metropolis were randomly (Lottery method) selected. The assessment tasks on the sampled instruments were critically examined by experts in the area of Educational Measurement and Evaluation. The results revealed that the teachers have limited skills in the construction of end-of-term examination. This was evident as issues were found with the content representativeness and relevance of the test, reliability, and fairness of the assessment tasks which were evaluated. It was recommended that head teachers should take up the challenge of inviting resource persons from recognised academic institutions to organise workshops for teachers on a regular basis to sharpen their skills on effective test construction practices.

Rufina, Hamman- Tukur, and Stephen (2015) assessed the relationship between commerce teachers' competence in test construction and test quality. The objective was to assess the areas of competence of Borno State Senior Secondary Schools Teachers of commerce in constructing examination questions. Two research questions were answered and one null hypothesis tested. The population of the study was 75 teachers of commerce in senior secondary schools in Borno State. A 42 item questionnaire named "Teachers Competence Questionnaire" (TECOM-Q) was administered to the sampled teachers. The reliability coefficient of 0.816 was established for the instrument through Cronbach's alpha. Frequency counts, percentages, mean and standard deviations were computed and Contingency coefficient was used to test whether there was a significant relationship between teachers of commerce competence and content validity of their examination questions. The result of the analysis showed that there were significant relationships between teachers of commerce competence and content validity, the areas of teachers' competence in constructing

examination questions were low. It was found that teachers concentrated on the lower levels of the cognitive domain (remembering, understanding applying. The study recommended workshops and seminars to improve teachers' competence in test construction.

Ngozi, Chika, and Aloysius (2013) Classroom-based achievement tests have been extensively used in Nigerian secondary schools especially after the introduction of continuous assessment in 1985. These achievement tests have been criticized over the years for lack of proper psychometric properties of a test. These views bother on teachers' possession or non-possession of competencies in test construction skills. This study developed and validated a Test Construction Skill Inventory (TCSI) for assessing the secondary school teachers' competencies in constructing classroom-based tests. Factor analysis was done on the 30- item instrument developed by the researchers. 25 items were found to be factorial valid. The TCSI was also found to be reliable with a coefficient of 0.73 and the secondary school teachers found almost all the 25 items important skills for quality classroom-based test construction. The TCSI was, therefore, recommended as an important measure for determining the secondary school teachers' test construction skill in Anambra State, Nigeria.

Content Validity of Teacher-Made Test

Content validity refers to the extent to which a test measures what it intends to measure and nothing else (Anikweze, 2015). When a test has content validity, the items on the test should represent all the range of possible items the test should cover. Oescher and Kirby in Rufina, Hamman-Tukur, & Stephen, (2015) investigated the content validity of mathematics and science (teacher made test) that were conducted by teachers; collected most recently administered questions constructed by teachers. They reported a relationship between teachers' knowledge of test item construction and content validity. They also noted that teachers who had knowledge of test construction had qualitative items than those who do not have.

Hamman-Tukur and Kamis (2000) study of content analysis on implications for testing, teaching, and development sampled three categories of students' examinations questions in University of Maiduguri (200, 300, and 400 levels). All students were B. Sc. Biochemistry students of the university. The study revealed that a preponderance of examination questions assessed simple learning outcomes of knowledge and comprehension categories of the cognitive domain at the expense of learning outcomes that call for synthesis and evaluation. As a rider to this finding, the authors recommended that there is need to sensitize teachers on the importance of setting questions that assess these complex learning outcomes.

Research Methodology

The content analysis and co-relational research design were adopted for the study. A sample of 95 Economics teachers was randomly selected, 55 of the Economics teachers were from public schools (schools owned by Government) while 40 of the Economics teachers were from the private schools (schools owned by private individuals). 33 structured items called Teachers Ability Questionnaire on Test Construction" (TAQTC) divided into sections A and B. Section A, demographic characteristics contained 3 items such as teacher qualification,

school type, year of working experience while section B contained 33 structured items on issues related to testing construction and Economics content validity. TAQTC has a four-point rating scale and the items were anchored on a continuum of A=Always, AA=Almost Always, ST= Sometimes NA=Not at All. TAQTC and a profoma for assessing Economics content validity and learning outcome was used. Previous teacher-made test questions were subjected to experts' judgment for validation by checking for appropriateness and relevance of the items, adequacy, and agreement with the test blueprint, clarity of expression and size of print, yielded 0.78 indexes and Cronbach alpha was used to determine the reliability of the internal consistency which gave 0.82. Frequency and percentage were used to sorted demographic data, research questions were answered using mean and standard deviation while null hypotheses were tested using independent t-test at 0.05 level of significant via Two-tailed.

Presentation of Results

Table 1: Demographic Distribution of the Respondents by Schools Type

Schools Type	Frequency	Percentage (%)
Public school teachers	55	57.9%
Private school teachers	40	42.1%
Total	95	100%

Source: Fieldwork (2019)

Table 1 shows the demographic distribution of the respondents by school type. 55(57.9%) are public school teachers while 40(42.1) are private school teachers. The result is also presented in a simple bar-chart in fig 1 below

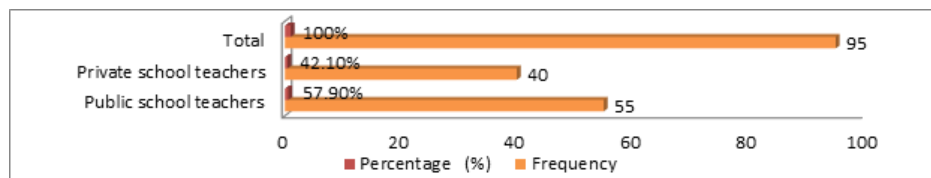


Fig 1: Bar-Chart

Table 2: Demographic Distribution of the Respondents by Educational Qualification

Educational Qualification	Frequency	Percentage (%)
Masters	15	15.8%
Degree	25	26.3%
HND	18	18.9%
NCE	32	33.7%
ND	5	5.3%
Total	95	100%

Source: Fieldwork (2019)

Table 2 shows the demographic distribution of the respondents by educational qualification. 15(15.8%) are teachers with master's qualification, 25(26.3%) are teachers with degree qualification, 18(18.9%) are teachers with HND qualification, 32(33.7%) are teachers with

NCE qualification, and 5(5.3%) are teachers with ND qualification. The result is also presented in a simple bar-chart in fig 2 below

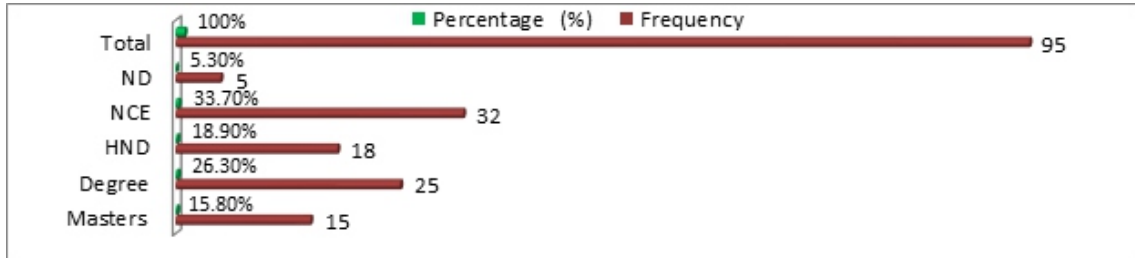


Fig 2: Bar-Chart

Table 3: Demographic Distribution of the Respondents by Years of Working Experienced

Years of Working Experience	Frequency	Percentage (%)
30-years above	10	10.5%
20- 29 years	30	31.6%
10-19 years	30	31.6%
1-9 years	25	25.3%
Total	95	100%

Source: Fieldwork (2019)

Table 3 shows the demographic distribution of the respondents by years of working experience. 10(10.5%) are teachers with 30 above years of working experience, 30(31.6%) are teachers with 20-29 years of working experience, 30(31.6%) are teachers with 10-19 years of working experienced and 25(25.3%) are teachers with 1-9 years of working experience. The result is also presented in a simple bar-chart in fig 3 below:

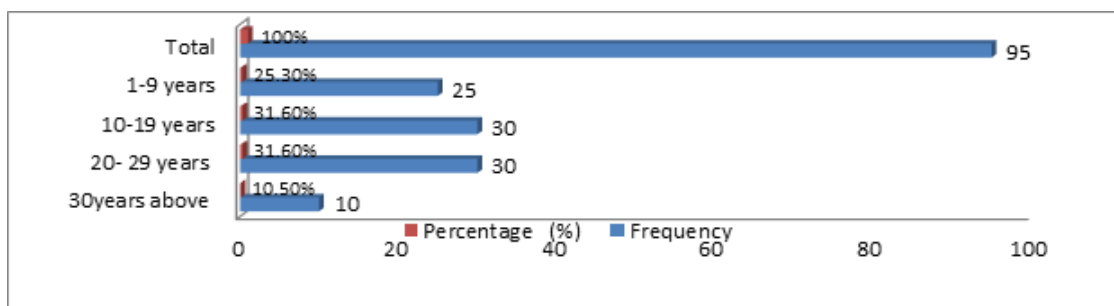


Fig 3: Bar-Chart

Answering of Research Questions

RQ1: What is the mean ability different between professional teachers and non-professional teachers on economics test construction?

Table 4: Summary of Descriptive Statistics for Professional and Non-Professional Senior Secondary School Teachers Responses on Test Construction.

No of cases	Cluster Mean	Cluster Std Dev	Remarks
95	3.07	0.87	Accept

Decision line 2.50

Table 4 above shows the mean ability different between professional teachers and non-professional teachers on economics test construction obtained from research question one have a cluster mean of 3.07 and a standard deviation of 0.86. This implies that majority of Economics teachers in senior secondary schools always make use of the listed items (4,6,7,8,9,10,11,12,13, 14, and 15) were accepted because they had mean scores above 2.5 of the decision line, while items 5 and 16 were rejected because they had mean scores below 2.5 of the decision line. See Appendix A1 for details of descriptive statistics.

RQ2: What is the mean ability different between private school teachers and public school teachers on Economics test construction?

Table 5: Summary of Descriptive Statistics for Public and Private Senior Secondary School Teachers Responses on Test Construction

No of cases	Cluster Mean	Cluster Std Dev	Remarks
95	3.08	0.83	Accept

Decision line 2.50

Table 5 above shows the mean ability different between public school teachers and private school teachers on Economics test construction obtained from research question two have a cluster mean of 3.08 and a standard deviation of 0.83. This implies that, majority of Economics teachers in private and public senior secondary schools always make use of the listed items (17, 18, 19, 20,21,22,23, 25, 26, 27, 28, 29, 30, 31, 32, and 33) were accepted because they had mean scores above 2.5 of the decision line, while only item 24 was rejected because it had mean scores below 2.5 of the decision line. See Appendix A2 details of descriptive statistics.

RQ3: what is the content validity of teacher-made test questions set by Nasarawa state senior secondary school teachers of Economics?

Table 6_A: Table of Specification for 20 Items Economics Objective Test for SS II Students

Content Objective Demand	Time (Hrs)	Knowledge	Comprehension	Application	Analyse	Syntheses	Evaluation	Total
	1.30	10%	5%	15%	40 %	25 %	5%	100%
		2	1	3	8	5	1	20
		11, 13	12,	4, 5, 7	1, 2, 3,8, 9, 10, 14, 15	6, 16, 17, 18, 20	19	

Source: Exams & Records Office of Various Schools (2019)

Table 6_B: Table of Specification for 10 Items Economics Essay Test for SS 2 Students

Content Objective Demand	Time (Hrs)	Knowledge	Comprehension	Application	Analyse	Syntheses	Evaluation	Total
	1.30	30%	30%	10%	10 %	10 %	10%	100%
		1	1	1	3	3	1	10
		8	9	7	1,2,3	4, 5, 6	10	

Source: Exams & Records Office of Various Schools (2019)

Table 6_A and 6_B show levels of the cognitive domain assessed by teachers against the ethical issues on test constructions. Table 6a shows 20 items Economics objective test, most of the test items were constructed on level of application 3(15%), analyses 8(40%), and syntheses 5(25%) as against the level of the testees in SS 2 where most of the items should be constructed on knowledge, comprehension, and application. In the same scenario, table 6b revealed 10 items Economics easy test, most of the test items were constructed on level of analyses 3(10%), and syntheses 3(10%) as against the level of the testees in SS 2 where most of the items should be constructed on knowledge, comprehension, and application of the levels of the cognitive domain.

Testing of Hypotheses

HO1: There is no significant difference in the mean ability of test construction between professional teachers and non-professional teachers of Economics

Table7: t-test of Significant Difference in the Mean Ability of Test Construction between Professional Teachers and Non-Professional Teachers of Economics

Group	Mean	Std dev	n	Df	α	t _{-cal}	t _{-crit}
Professional Teachers	3.22	0.84	55	93	0.05	1.84	2.00
Non-Professional Teachers	2.65	0.97	40				

p>0.05, significant at two-tailed

Table 7 showed professional teachers had a mean score of 3.22 and a standard deviation of 0.84, while non-professional teachers had a mean score of 2.65 with a standard deviation of

0.87. The further result also confirmed that t-calculated value is 3.07; using the degree of freedom of 93 via two-tailed at 0.05 level of significance and the t-critical value of 2.00 was obtained. Since the t-calculated value of 1.84 was less than the t-tabulated value of 2.00, the t-test statistic was significant. Hence the null hypothesis was rejected and accepted the alternative hypothesis. Hence, there is a significant difference in the mean ability of test construction between professional teachers and non-professional teachers of economics. Any observed difference in the mean ability of test construction between professional teachers and non-professional teachers of economics is such that might have arisen from sampling errors or any other variations in the research. There is the need to calculate the effect size for this independent sample t-test statistic which yielded a significant result. Effect size statistics provided an indication of the magnitude of the differences between the two groups were statistically compared. The procedure for calculating eta squared for the independent t-test statistic in Table 7 is provided by the formula:
$$\text{Eta squared} = \frac{t^2}{t^2 + (n_1 + n_2 - 2)}$$

From Table 7, the t-calculated is 1.84, $n_1=55$ and $n_2=40$, the eta squared could be calculated by t^2 replacing these values in the formula to get:
$$\frac{1.84^2}{1.84^2 + (55 + 40 - 2)} = \frac{3.3856}{3.3856 + 93} = \frac{3.3856}{96.3856} = 0.035$$
. The guidelines for interpreting the values of eta squared are: 0.01 = small effect, 0.06 = moderate effect, 0.14=large effect. In this hypothesis, the eta value of 0.035 which is of very small effect size. To express the percentages, (i.e. multiply the effect size by 100), only 0.035 percent of the variance in the professional teacher's variable could be explained by the non-professional teacher's variable.

Hypothesis 2: There is no significant difference in the mean ability of test construction between private school teachers and public school teachers of economics

Table 8: t-test of Difference in the Mean Ability of Test Construction between Private School Teachers and Public School Teachers of Economics

Group	Mean	Std dev	N	Df	α	t_{cal}	t_{crit}
Public Teachers	3.12	0.87	55	93	0.05	1.92	2.00
Private Teachers	2.75	0.99	40				

$p > 0.05$, significant at two-tailed

Table 8 showed public school teachers had a mean score of 3.12 and a standard deviation of 0.87, while private school teachers had a mean score of 2.75 with a standard deviation of 0.99. The further result also confirmed that t-calculated value was 1.97 using the degree of freedom of 93 via two-tailed at 0.05 level of significance and the t-critical value of 2.00 was obtained. Since the t-calculated value of 1.92 was less than the t-tabulated value of 2.00, the t-test statistic was significant. Hence the null hypothesis was rejected and accepted the alternative hypothesis. Hence, there is a significant difference in the mean ability of test construction between private school teachers and public school teachers of economics. Thus, eta squared for the groups are:

$$\frac{1.92^2}{1.92^2 + (55+40-2)} = \frac{3.6864}{3.6864+93} = \frac{3.6864}{96.6864} = 0.038$$

The guidelines for interpreting the values of eta squared are: 0.01 = small effect, 0.06 = moderate effect, 0.14=large effect. In this hypothesis, the eta value of 0.035 which is of very small effect size. To express the percentages, (i.e. multiply the effect size by 100), only 0.038 percent of the variance in the public school teacher's variable could be explained by the private school teacher's variable.

Summary of the Major Findings

Based on the results of the analysis, the following major findings emerged from the study. There was a statistically significant mean difference in ability between professional teachers and non-professional teachers of Economics in test construction and there was a significant mean difference in ability between public school teachers and private school teachers of Economics in content validity among others.

Discussion of Results

The tables 1, 2, and 3 revealed demographic characteristics of the respondents by school type, educational qualification and years of working experience. Most likely the results obtained in Table 4 clearly showed mean ability different between professional teachers and non-professional teachers on economics test construction obtained from research question one have a cluster mean of 3.07 and standard deviation of 0.86. This implies that majority of Economics teachers in senior secondary schools always make use of the listed items (4,6,7,8,9,10,11,12,13, 14, and 15) were accepted because they had mean scores above 2.5 of the decision line, while items 5 and 16 were rejected because they had mean scores below 2.5 of the decision line.

Again, the result of hypothesis one in table 7 showed professional teachers had a mean score of 3.22 and a standard deviation of 0.84, while non-professional teachers had a mean score of 2.65 with a standard deviation of 0.87. The further result also confirmed that the t-calculated value was 3.07; using the degree of freedom of 93 via two-tailed at 0.05 level of significance and the t-critical value of 2.00 was obtained. Since the t-calculated value of 1.84 was less than the t-tabulated value of 2.00, the t-test statistic was significant. The null hypothesis was rejected and accepted the alternative hypothesis. Hence, there is a significant difference in the mean ability of test construction between professional teachers and non-professional teachers of economics. Any observed difference in the mean ability of test construction between professional teachers and non-professional teachers of economics is such that might have arisen from sampling errors or any other variations in the research. There is the need to calculate the effect size for this independent sample t-test statistic which yielded a significant result. Effect size statistics provided an indication of the magnitude of the differences between the two groups were statistically compared. The eta result for the hypothesis one was 0.035 which is very small effect size. To express the percentages, (i.e. multiply the effect size by 100), only 0.035 percent of the variance in the professional teacher's variable could be explained by the non-professional teacher's variable. The results corroborated with that of Frank, Isaac, and Francis (2019) revealed that the teachers have limited skills in the construction of end-of-

term examination. This was evident as issues were found with the content representativeness and relevance of the test, reliability, and fairness of the assessment tasks which were evaluated.

Table 5 showed the mean ability different between private school teachers and public school teachers on Economics test construction obtained from research question two had a cluster mean of 3.08 and a standard deviation of 0.83. This implies that, majority of Economics teacher's senior secondary schools always make use of the listed items (17,18,19,20,21,22,23, 25, 26, 27, 28, 29, 30, 31, 32, and 33) were accepted because they had mean scores above 2.5 of the decision line, while only item 24 was rejected because it had mean scores below 2.5 of the decision line. More so, the result of hypothesis two in table 8 showed public school teachers had a mean score of 3.12 and a standard deviation of 0.87, while private school teachers had a mean score of 2.75 with a standard deviation of 0.99. The further result also confirmed that t-calculated value was 1.97 using the degree of freedom of 93 via two-tailed at 0.05 level of significance and the t-critical value of 2.00 was obtained. Since the t-calculated value of 1.92 was less than the t-tabulated value of 2.00, the t-test statistic was significant the null hypothesis was rejected and accepted the alternative hypothesis. Hence, there is a significant difference in the mean ability of test construction between private school teachers and public school teachers of economics. Thus, eta squared for the groups are = 0.038 which is very small effect size, that is only 0.038 percent of the variance in the public school teacher's variable could be explained by the private school teacher's variable. The results are in agreement with that of Ngozi, Chika, and Aloysius (2013) is found to be reliable with a coefficient of 0.73 and the secondary school teachers found almost all the 25 items important skills for quality classroom-based test construction.

Finally, Table 6_A and 6_B showed levels of the cognitive domain assessed by teachers against the ethical issues on test constructions. Table 6_A shows 20 items Economics objective test, most of the test items were constructed on level of application 3 (15%), analyses 8 (40%), and syntheses 5(25%) as against the level of the testees in SS 2 where most of the items should be constructed on knowledge, comprehension, and application. In the same scenario, table 6_B revealed 10 items Economics easy test, most of the test items were constructed on level of analyses 3(10%), and syntheses 3(10%) as against the level of the testees in SS 2 where most of the items should be constructed on knowledge, comprehension, and application on the levels of the cognitive domain. The implication of these results in table 6_A and 6_B contradicted the ethics of development, construction, and administration of test items at this level of SS2. This is because the results will be skewed to the negative (many testees failed the test) due to the difficulties level of the test item developed by the test developers. This finding contradicted that of Rufina, Hamman-Tukur, and Stephen (2015) opinion that there were significant relationships between teachers of commerce competence and content validity; the areas of teachers' competence in constructing examination questions were low. It was found that teachers concentrated on the lower levels of the cognitive domain (remembering, understanding applying).

Conclusion

It was concluded that, teacher ability on test construction and Economics content validity of teacher-made found to be very low in ability. This is because teachers in both private and public schools mostly constructed test items on application, analyses, and synthesis which was higher against the levels of testee cognitive domain of learning objectives for secondary school's students.

Recommendations

Based on the major findings, the following recommendations were made:

1. Conference/workshops on items construction should be organised to improve teachers' ability on valid test construction and
2. Proper evaluation routine by state government evaluators to ensure the reliable and valid Economics content validity for sustainable development of the subject covers in secondary schools.

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Appendix A¹

Descriptive statistics for the Responses of Professional and Non Professional Teachers on Test Construction

S/N	Item description	Professional Teachers				Non-Professional Teachers				Mean	Std Dev.	Rmk
		A	AA	ST	NA	A	AA	ST	NA			
1.	I used scheme of work every term before teaching	30	15	8	2	20	10	5	5	2.92	0.98	Accept
2.	I prepare a test blueprint as a guide in the test construction	10	15	20	10	20	5	5	20	1.89	0.92	Reject
3.	I used pre-test items to administered pos-test	25	25	3	2	10	22	5	3	3.47	0.68	Accept
4.	I used valid Economics text books to set test items	35	10	9	1	20	12	5	3	3.34	0.86	Accept
5.	I organize test items in a logical manner	34	11	5	5	23	10	5	2	3.23	0.96	Accept
6.	I gave clear instructions to guide the testees	25	25	3	2	10	22	5	3	3.47	0.68	Accept
7.	I constructed test to portrayed psychometric properties	35	10	9	1	20	12	5	3	3.34	0.86	Accept
8.	I used test results for decision making on students	30	15	8	2	20	10	5	5	2.92	0.98	Accept
9.	I used students test score to judge their performance	30	18	5	2	23	10	5	2	3.29	0.96	Accept
10.	I set tests with due regard to the time available for testing.	34	11	5	5	23	10	5	2	3.23	0.96	Accept
11.	Add enough test items to cover all the requisite levels of cognitive domain	25	25	3	2	10	22	5	3	3.47	0.68	Accept
12.	I used students Notebook to set test items	25	25	3	2	10	22	5	3	3.47	0.68	Accept
13.	I allow students to supervised their test	10	15	20	10	20	5	5	20	1.89	0.92	Reject
Cluster Mean										3.07	0.86	Accept

Decision line 2.50 A=Always, AA=Almost Always, ST= Sometimes NA=Not at A

Appendix A²

Descriptive statistics for the Responses of Professional and Non Professional Teachers on Test Construction

S/N	Item description	Public School Teachers				Private School Teachers				X Mean	Std Dev	Decision
		A	AA	ST	NA	A	AA	ST	NA			
1.	I assign scores for each test item.	30	18	5	2	23	10	5	2	3.29	0.96	Accept
2.	I used various assessment methods in teaching Economics	34	11	5	5	23	10	5	2	3.23	0.96	Accept
3.	I set essay items that elicit creative and remembering answers	25	25	3	2	10	22	5	3	3.47	0.68	Accept
4.	I prepare a marking scheme while constructing test items	25	25	3	2	10	22	5	3	3.47	0.68	Accept
5.	I consider the age of learners during item construction	25	25	3	2	10	22	5	3	3.47	0.68	Accept
6.	I avoid gender stereotypes in the test items.	35	10	9	1	20	12	5	3	3.34	0.86	Accept
7.	Add sufficient items to cover the appropriate instructional units	30	15	8	2	20	10	5	5	2.92	0.98	Accept
8.	I submitted test items to my colleagues for vetting.	10	15	20	10	20	5	5	20	1.89	0.92	Reject
9.	I give area of consideration few days before administering the test	25	25	3	2	10	22	5	3	3.47	0.68	Accept
10.	I avoid the use of clues in multiple choice questions	35	10	9	1	20	12	5	3	3.34	0.86	Accept
11.	I used scales for rating students' performance	25	25	3	2	10	22	5	3	3.47	0.68	Accept
12.	I used True/False option in my test items	25	25	3	2	10	22	5	3	3.47	0.68	Accept
13.	I gave grouped assignment.	35	10	9	1	20	12	5	3	3.34	0.86	Accept
14.	I discussed students test performance with other staff	35	10	9	1	20	12	5	3	3.34	0.86	Accept
15.	I used assessment result to evaluate my teaching methods	25	25	3	2	10	22	5	3	3.47	0.68	Accept

Decision line 2.50 A=Always, AA=Almost Always, ST= Sometimes NA=Not at All