

TEACHING SUBJECTS AND EXPERIENCES AS FACTORS OF TEACHERS' ATTITUDE TOWARDS THE USE OF MARKING GUIDE IN SCORING ESSAY TESTS

Orluwene, Goodness W. & Ajala, Ibrahim

Department of Educational Psychology, Guidance and Counselling,
Faculty of Education, University of Port Harcourt, Rivers State, **NIGERIA**

ABSTRACT

The study explored the attitude of secondary school teachers toward the use of marking scheme in scoring essay tests. It was conducted using 690 secondary school teachers in Rivers State, Nigeria. The study was guided by three research questions and three corresponding null hypotheses. A two-stage sampling method involving non-proportionate stratified random sampling and accidental/convenience alongside purposive sampling techniques. To collect data, a 15-itemed instrument tagged "Teachers Attitude Scale on the use of Marking Scheme" developed by the researchers was used. The instrument has face, and content validity. A reliability coefficient of 0.81 was obtained using Cronbach Alpha Method, indicating a very high internal consistency among the items. Data collected were analyzed using frequency, chi-square, mean, standard deviation and two-way analysis of variance (2-way ANOVA). It was revealed that, the number of teachers with positive and negative attitude vary based on their teaching subjects and experiences. Result further revealed that attitude of teachers toward the use of marking scheme differ significantly based on their teaching subjects and experiences. Thus it was recommended among others that schools administrators and principals should encourage intensive collaborative and mentoring policy in the school by pairing more experienced teachers with the less experienced ones.

INTRODUCTION

Assessment of students' learning takes different methods such as objective, essay, and performance tests. The choice of one depends on the skills to be measured. For instance, essay items are used to assess both knowledge, and reasoning skills. That is in assessing thinking skills or mastery of a structure of knowledge essay test is often used. Essay test allows students the freedom to organize, compose, integrate, interpret, explain, argue and evaluate concepts or ideas hence Orluwene (2012) stated that it has the potential to measure higher or complex cognitive learning outcomes. It also influence students learning by encouraging thinking, and development of writing/expression skills.

Despite these benefits derived from essay test it is noted that its scoring creates room for inconsistency and unreliable scores (Orluwene, 2012). Unreliable scores can be misleading and detrimental to the accurate and reliable decision making about the students' abilities, teachers' efficiency and the suitability of the curriculum. In other words unreliable scores may lead to ineffective assessment, while effective assessment promotes learning and certifies the extent learning has taken place. This is because through effective assessment, effective feedback is provided for the students. Effective feedback involves looking backwards on the students' responses to determine the level of successes attained while responding to a given task and also looking forward based on their responses to determine "where and how" improvement can be made to enhance quality subsequently. To support this Elliot, Kratochwill, Cook and Travers (2000) stated that good feedback entails giving

students valid and detailed information about their performance, indicating areas done well and those needing improvement. That means to achieve effective feedback valid, fair and transparent means of assessing students are paramount. A valid, fair and transparent assessment depend so much on reliable marking of the students' responses.

Marking of students responses is not the same as proof-reading of a write-up. It is the process of awarding indices or symbols that will represent the students' level of accomplishment in a given task. The indices given during marking/scoring is known as marks which is the symbolic representation that summarise the quality of work done by students and their level of attainment. High indices reflect better quality work while low indices reflect low quality work (Sadler, 2009).

Marking is one of the very important aspects of assessment activities. When students' performance are adequately represented and judged using reliable indices and effective feedback, the best way to improve can be identified. This can further facilitate authentic and accurate decision on the teaching-learning process as well as modification of the curriculum to meet students' need. To this end Dunn, Morgan, O'Reilly and Parry (2004) opined that as the result from assessment determines the effectiveness of the teaching, learning and curriculum, so marking determines the effectiveness of the assessment and indirectly defines the effectiveness of the quality of teaching. For instance, when the students' levels of achievement are reliably and adequately distinguished based on their performance, the true pictures of the students and the level of learning are determined. An accurate and reliable measure of students' performance is an indication of an assessment that is curriculum-aligned and quality oriented.

Adequate judgment of students' performance is achieved when the marking is valid, fair, consistent and transparent. Consistency and transparency marking promote the provision of constructive feedback from teachers to students which in turn enhance the adequacy and quality of assessment and learning. Consistency in marking of essay items hinges on the effective use of marking scheme/guide during scoring. Dunn et al (2004) stated that marking guide promotes validity and reliability of assessment results. To support this, City University of London (2016) stated that to promote consistency and transparency in marking, marking guidelines should be provided to all markers, moderators and external examiners to be used to mark and grade assessment. In essay test, students' responses are diversified, creating problems of lack of scorer reliability (intra and inter-scorer), halo-effect and influence of markers' attitude on students' performance. To overcome this, the use of comprehensive marking scheme is recommended and approved. For instance Brew (2008) reported that students assessed by different teachers were similarly graded with the use of the same marking guide in scoring.

Marking Scheme (otherwise known as marking guide, marking matrices, marking keys and marking rubrics) "is a matrix-based instrument that describes grade based on the level of attainment against specific assessment standard for a given task" (Bloxham & Boyd, 2007:235) It sets the categories or standard against which the learners' responses are judged and also described the standard of performance for each task. Lale (2016:8) stated that a marking scheme is an instrument containing answers expected from students to a question fragmented in a such a way that the quantum of mark dedicated are allocated to these fragments in a fair manner. Marking guide is made up of the expected learning outcomes that the assessment is designed to accomplish, all the information about the assessment, its criteria and grade-related standard and the relevant information needed in a given response (City

University of London, 2016). It is made up of two parts, the marking criteria and a sample of the students work showing how the scores are distributed and comments on where and how scores will be given. Based on that every mark is accounted for, by identifying areas of students' weaknesses and strengthens alongside teachers' expectations. To Schamber and Mahoney (2006) marking scheme does not only help students in determining teachers' expectations but also help them to assess themselves.

The use of marking scheme helps students to evaluate themselves and their peers thus Ramsden (2000:196) stated that "good marking guide encourages student autonomy". Preparing marking scheme ahead of time allows teachers to review their questions, determine the extent the questions really test the intended objectives and also the adequacy of the students' responses or how the students' responses deviates from what is required, (University of Waterloo. N.D).

The role effective use of marking scheme play in enhancing the quality of assessment cannot be over emphasized. It is the recognition of the positive impacts effective use of marking scheme play on the quality of assessment that all examining bodies like West African Examination Council (WAEC), National Examination Council (NECO) and National Business and Technical Examination Board (NBTEB) etc cannot conduct their examinations without the use of marking scheme during their scoring. These bodies prepare marking schemes for all subjects and paper types. They do not only provide marking schemes to the examiners but they also organized compulsory training exercise for the examiners on the effective use of the marking scheme in marking the candidates' answer scripts. At the end of the training exercise (briefing) only those found competent in using the marking guide to score the dummy scripts that are given the opportunity to mark the real scripts which will later be vetted by the team leaders of each unit.

Despite the importance of marking scheme to both the teachers and students, it is observed that some teachers do not adequately use marking scheme in scoring essay questions. This is evidence in the way some teachers viewed assessment in general. For instance, Elliot et al (2000) stated that some teachers view assessment of students as an additional task to their responsibilities hence it is an interference to their performance. It was also reported that teachers' have different attitudes towards the use of marking scheme (Kutlu, Bilican & Yildirim, 2010). Salteh and Sadeghi (2015) also reported that there were significant differences in the preferences and attitude of teachers and students toward issues related to marking written papers. Again noticeable disagreement was observed among teachers on the most appropriate error correction technique to be used. It was also obtained that some teachers feel they know what their students can do and what they cannot do, so testing them is not necessary. Sequel to this it could be deduced that those teachers that view testing as superfluous may not like to spend much of their time and energy to adequately carry out all the assessment practices which using marking scheme in scoring students' responses is one. It is worth noting that if teachers just merely conduct assessment, they will also merely judge the students responses unreliably. Holmes and Smith (2003) reported that students criticize the method essay items are graded in terms of lack of fairness and inadequate feedback. To support this, Reddy (2007) stated that both students and teachers expressed dissatisfaction on the grading methods of constructed-response items such as essay and performance-based tasks. Elliot et al (2000) stated that sometimes teachers are careless in the construction of tests and other assessment practices which includes scoring of the students' performance. This situation may cause lasting damage to the teaching-learning situation because, it will hinder teachers from getting additional knowledge about the extent of learning.

In recognition of the dangers careless marking of essay tests may cause or introduce to the teaching-learning process, the American Federation of Teachers (AFT), the National Council on Measurement in Education (NCME) and the National Education Association (NEA) recommended, among others that teachers should be skillful in administering, scoring and interpreting results of both school-based and externally-produced assessments (AFT, NCME & NEA, 1990). Skilled in scoring is reflected in the effective use of marking scheme in scoring test mostly essay tests. In another dimension, the expectation of many in our society today is quality and enhanced learning. Teachers as transformers of life and behaviour should at least use marking scheme effectively during the scoring of essay tests as to arrive at reliable scores. To achieve these, study like the present one is urgently needed. This is because teachers are the facilitators of curriculum and learning objectives, transformer of lives and behaviours of students (Tucker & Stronge, 2015).

Furthermore, there are two main roles teachers have to play in the classroom, these include teaching and assessing of students hence they are regarded as coaches and assessors. Teachers have the responsibility of encouraging students to judge their (teachers') work based on the progress they have made so far. They also help students to understand their relative position to the learning objectives and how and where improvement is needed by providing students specific and constructive feedback (Assessment Reform Group, 2002).

For teachers, the transformers of life and behavior, to effectively carry out their roles in the classroom, the qualities of fairness and justice are paramount. That is teachers are not expected to favour some students and disfavor the others in any action taken in the classroom. Thus students should be treated equally in every classroom activities. However, due to the nature of the responses in essay tests teachers cannot expressed transparency, fairness and justice when marking unless effective use of marking scheme is employed. Just like a carpenter cannot smoothen the rough surface of a wood with a blunt plane, a teacher cannot adequately transform the behavior of students with unreliable assessment results.

Despite, the negative impacts of inconsistent marking, it is observed in schools that after the scoring of class work or tests, there are reports or students complain to their teachers concerning areas where they feel they were not unfairly grade. When teachers asked how the student(s) got to know, they often reply "you mark it as a correct response for my friend who wrote the same thing with me". This may partly reflect the extent marking guide is utilized in scoring test and it is presumed that the extent teachers utilized marking scheme in scoring students performance may depend on their attitude towards it.

Teachers effectiveness in carrying out their roles are characterized by a more complex set of qualities which include their dispositions, array of planning, organizational, instructional and assessment skills other than their professional preparation (Tucker & Stronge, 2005). This means, the use of marking scheme in scoring is beneficial but sometimes teachers may not accede to it due to their attitude toward it.

Attitude is a relatively enduring organization of beliefs, feelings, and behavioural tendencies towards socially significant objects, groups, events or symbols (Hogg & Haughan 2005:150). It is a construct that reflects the way an individual behave towards things and situation. To that effect, attitude towards the use of marking scheme in scoring essay test is the teachers' disposition toward the use of marking scheme in scoring essay test. It is acquired through their beliefs and experiences. Attitude could be positive or negative depending on one's feeling and disposition. A positive attitude reflects a positive emotional disposition towards a

given situation or thing. Similarly a negative attitude reflect a negative emotional disposition towards a given situation or thing. So a positive attitude is a favourable one which can spurs one's willingness to use marking scheme in scoring essay test while negative attitude is unfavourable hence will not influence willingness to use it.

Studies related to marking scheme had been conducted. For instance Kutlu, Bilican and Yildirm (2010) studied on primary school teachers' attitudes toward rubrics revealed that level of information on the rubric, class size, use of rubric to monitor students thinking skills as well as to give feedback predicted teachers attitude towards rubric highly. Andrade and Du (2005) reported that results of their interview on 14 pre-service teacher education undergraduates on the use of marking rubrics indicated that most students perceived that rubric are used to plan on the appropriateness of responses to a given task, produce quality learning, fair and transparent grading and it helps to reduces their anxiety levels.

Campbell (2005) and Powell (2001) reported that teachers' perceived marking scheme as instructional and evaluative tool. In another dimension, studies related to impact of teaching experience revealed that teaching experience enhanced teachers skills in writing good lesson plans, map out strategies to achieve the learning objectives, managing discipline in the classroom, writing high quality examination papers and marking scheme (Walker, 2016).

In other words teaching experience help teachers to demonstrate the most effective way to motivate students and minimize disruptive behavior. Kini and Podolsky (2016) reported that their review on 30 studies that analyze the effect of teaching experience proved that teaching experience increase teachers' effectiveness during their first five years in teaching, which also significantly increased during the second and third decade of their teaching career. Teaching experience positively relate with the effectiveness of most teachers and students' achievement. Again on the average the most effective teachers with 20 years teaching experience are significantly more effective than the most effective teachers with 1 year teaching experience. Nevertheless, it is worth noting that teachers' effectiveness at every stage of their teaching career may vary and prone to changes. In the same manner, teachers with many years of teaching experiences may not also be very effective in carrying out their responsibilities. However, Kini and Podolsky (2016) stated that teachers with less teaching experience acquire more experience when they have good contact with the more experienced ones.

In another study related to assessment practices, Zhang and Burry-Stock (2003) reported that teaching subjects significantly influence teachers' assessment practices in relation to using paper-and-pencil test, grading and communicating assessment results etc. Teachers of language-arts, sciences, social studies used paper and pencil test more than mathematics and non-academic subject teachers. Mathematics and language arts teachers were reported to effectively practice grading and communicating assessment results more than teachers of non-academic subjects.

Stiggin and Conklin in Zhang and Burry-Stock (2003) reported that grade levels and teaching subjects significantly influence teachers' concern about the quality of assessment done in the classroom. On the other hand, Adams and Hsu in Zhang and Burry-Stock (2003) reported that mathematics and science teachers were more concerned about the quality of test they produced than teachers of other subjects. All these indicates that teachers' attitude toward the use of marking scheme/guide may be influenced by teachers' characteristics such as teaching experience and subjects. Again the studies explored by the researchers revealed that little or

no research examining teachers attitude towards the use of marking scheme in essay test have been conducted within the Nigerian society.

It is against this hunch that the researchers were compelled to carry out this study. This is because it is hopeful, that determining the attitudes of teachers toward the use of marking scheme, in scoring essay tests will help to provide essential information that both teachers and students will need to achieve the objectives of schooling. The findings from the study may help teachers to provide valid and reliable data about students which accurate decision will be build on. Findings from the study will also reduce the level of dissatisfaction expressed by teachers and students with grading methods of construct response items like essay items. This is because when marking guide is used effectively by the teachers, every mark given is accounted and reliable scores for all students will be obtained.

The findings from the study may also help to maintain the teachers' integrity and the students' confidence on the teachers. When students are satisfied with the way their scripts/responses are scored, the respect they have for their teachers will be reserved unlike when some students feel cheated by their teachers in relation to unfair marking of their performance.

The study sought to examine the attitude of secondary school teachers towards the use of marking scheme in scoring essay test. Specifically the study will determine:

- i. The number of teachers with positive and negative attitudes towards the use of marking scheme in scoring essay test based on their teaching subjects and experiences.
- ii. The influence of teaching subjects and experiences on the attitudes of teachers toward the use of marking scheme/guide in scoring essay tests.

Furthermore, to frame the study the following research questions were raised:

- i. What is the number of teachers with positive and negative attitude towards the use of marking scheme in scoring essay tests in secondary schools based on their teaching subjects?
- ii. What is the number of teachers with positive and negative attitudes towards the use of marking scheme in scoring essay test based on their teaching experiences?
- iii. How do teaching subjects influence the attitude of teachers towards the use of marking scheme in scoring essay tests in secondary schools based on their teaching experience?

METHODOLOGY

The study adopts the descriptive survey design and a sample of 690 teachers was drawn using two stage sampling method. The two-stage sampling involves the use of non-proportionate stratified random sampling, accidental/convenience sampling technique alongside purposive sampling. The non-proportional stratified random sampling was used to select two schools from each of the 23 Local Government Areas in Rivers State. This gave rise to a total of 46 schools used for the study. In the second stage, accidental/convenience alongside purposive sampling techniques was applied to select 15 teachers from each of 46 secondary schools chosen for the study.

To collect data from the 690 teachers selected an instrument tagged "Teachers Attitudes' toward the use of Marking Scheme in scoring essay test" was developed by the researchers. The scale was made up of two sections: A and B. Section A, elicited information on the teachers' personal data such as teaching subjects and years of teaching, while Section B elicited information on teachers attitude towards the use of marking scheme in scoring essay test. It is made up of 15 items, 10 positively keyed and 5 negatively keyed items that were

responded using four point Likert format of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). These response pattern were weighted 4 point, 3 points, 2 points and 1 point, respectively for any positively keyed item while the responses' weight were reversed for the negative items, hence, 1 point, 2 points, 3 points, and 4 points are respectively for SA, A, D and SD. So the scale TATUMS provided a minimum and maximum scores of 15 and 60 marks respectively.

The face and content validities of the instrument were determined by subjecting the items' statements of the scale to adequate scrutiny of three experts in measurement and evaluation. The comments and suggestions of these experts on the first version were reflected in the final version of the instruments which further enhanced the face and content validities of the instrument. After the determination of the face and content validities of the instrument, copies of the instruments were pilot tested on 30 teachers selected randomly from three schools outside the chosen schools for the study. The responses from these 30 teachers were scored, collated and subjected to Cronbach Alpha Method of reliability determination. This gave a co-efficient of 0.81 indicating very high internal consistency level among the items in assessing teachers' attitude towards the use of marking scheme in scoring essay tests.

Furthermore the instruments were directly administered to the 690 teachers by the researchers and a research assistant selected from each of the schools chosen and visited for the purpose of the study. During the administration, issues or areas not understood by the respondents were explained by the researchers. At the completion of the instrument, the researchers retrieved copies of the instrument immediately. This enhanced 100% retrieve rate. However during scoring and collection it was discovered that 11 (1.59%) copies of the instrument were not properly responded to, hence they were invalidated and removed from the exercise. So a total of 679 teachers' scores equivalent to 98.41% were used for the data analysis.

The data collected were analyzed using frequency, chi-square, mean, standard deviation and two-way analysis of variance where appropriate.

RESULTS

The results of research question 1 and hypothesis 1 are presented in table 1, that of research question 2 and hypothesis 2 are presented in table 2 while that of research question 3 and hypothesis 3 are presented in table 3 and 4 respectively.

Table 1: Chisquare analysis on the number of teachers with positive and negative attitudes toward the use of marking guide in scoring essay tests based on their teaching subjects.

Teaching Subjects	Attitude		Total	df	X ²	P-value
	Negative	Positive				
Maths and Science	29	173	202			
Languages	70	71	141	2	150.33	0.000
Other Subjects	238	109	347			
Total	337	353	690			

In table 1, it is shown that out of 690 teachers, 202 of them teach mathematics and science subjects, 141 of them are language teachers while 347 teaches other subjects outside mathematics, science subjects and languages. It is also shown in the same table 1 that 29 mathematics and science teachers had negative attitude towards the use of marking guide in scoring essay tests while 173 of them had positive attitudes towards it. For the teachers of

languages, 70 and 71 of them had negative and positive attitudes respectively towards the use of marking guide in scoring essay tests. When teachers of other subjects (outside mathematics, sciences and language) were considered, it is revealed that 238 and 109 of them respectively have negative and positive attitude towards the use of marking guide in scoring essay tests. In general, it is revealed in table 1 that 337 and 353 teachers had negative and positive attitudes respectively toward the use of marking guide in scoring essay tests. This shows that only 51.16% of the teachers had positive attitude while 48.84% of them had negative attitude.

Table 2: Chi-square analysis on the number of teachers with positive and negative attitude towards the use of marking guide in scoring essay tests based on teaching experience.

Years of Teaching Experience	Attitude Type		Total	df	X ²	P-value
	Negative	Positive				
1-10 years	218	130	348	1	53.54	0.000
11-20 years	119	223	342			
Total	337 (49 %)	353(51%)	690			

Table 2 shows that 337 (49%) out of 690 teachers have negative attitude towards the use of marking guide in scoring essay test while 353 (51%) of them have positive attitude towards it. Table 2 also shows, that 348 and 342 teachers respectively have 1-10 years and 10-20 years of teaching experience. When teachers with 1-10 years of teaching experience was considered, it is shown in table 2 that 218 (31.59%) and 130 (18.84%) have negative and positive attitudes respectively toward the use of marking guide in scoring essay question. For teachers with 11-20 years of teaching experience, it is also shown in table 2 that 119 (17.25%) and 223 (32.32%) of teachers have negative and positive attitudes respectively toward the use of marking guide in scoring essay tests.

Furthermore, when the observations shown in table 2 were subjected to chi-square analysis, a calculated chi-square value of 53.53 obtained was significant at df of 1 at 0.000 level of significance ($p < 0.05$). Hence the number of teachers with positive and negative attitudes toward the use of marking guide in scoring essay tests differ significantly based on their teaching experiences.

Table 3: Mean and standard deviation on the influence of teaching subjects on the attitudes of teachers towards the use of marking guide in scoring essay tests based on their teaching experiences.

Teaching Subjects	Teaching Experience	N	Mean	SD
Mathematics and Sciences	1-10 years	78	39.26	6.26
	11-20 years	124	42.08	5.62
	Total	202	40.99	6.02
Languages	1-10 year	72	33.94	5.14
	11-20 years	69	37.20	6.27
	Total	141	35.54	5.93
Other Subjects	1-10 years	198	30.87	5.41
	11-20 years	149	34.48	7.03
	Total	347	32.42	6.40
Total	1-10 years	348	33.39	6.49
	11-20 years	342	37.79	7.23
	Total	690	35.57	7.21

In table 3, it is shown that when teaching experience is held constant and only teaching subjects were considered, the mean scores of the teachers of mathematics and sciences in their attitude towards the use of marking scheme in scoring essay test is 40.99 (SD= 6.02). Those teachers of languages had the mean score of 35.54 while the teachers of other subjects (outside mathematics, sciences and languages) had the mean score of 32.42. These indicated that the teachers of mathematics and sciences had the highest mean score followed by those teaching languages and then other subjects' teachers by a difference of 5.45 and 8.57 respectively. Then the language teachers had a higher mean score than other subjects teachers by a mean difference of 3.12 in their attitude towards the use of marking guide in scoring essay tests.

When teaching experience was considered alongside teaching subjects results in table 3 revealed that in all the teaching subjects, the group of teachers with 11-20 years of teaching experience had the higher mean than their counterparts with 1-10 years of teaching experience. For instance those teaching mathematics and sciences having 1-10 years and 11-20 years of teaching experiences had the mean scores of 39.26 and 42.08 respectively. So the teachers of mathematics and science with 11,-20 years of teaching experience had a higher mean score than their counterparts with 1-10 years of teaching experience by a mean difference of 2.82. Within the teachers of language those with 1-10 years and 11-20 years of teaching experience has the mean scores of 33.94 and 37.20 respectively. Thus those with 11-20 years of teaching experience scored a higher mean than their counterparts with 1-10 years of teaching experience by a difference of 3.26. For the teachers of other subjects, those with 1-10 years and 11-20 years of teaching experience had the mean scores of 30.87 and 34.48 respectively. That is the 11-20 years experienced teachers of other subjects had a higher mean score than their counterparts with 1-10 years teaching experience by a difference of 3.61.

Then, when teaching subjects was held constant and only teaching experience was considered the mean scores of the teachers in 1-10 years and 11-20 years of teaching experience were 33.39 and 37.79 respectively. These indicated that the teachers with 11-20 years of teaching experience had a higher mean score than their counterparts with 1-10 years of teaching experience by a mean difference of 4.40. The information provided in table 3 are also depicted graphically as shown in figure 3. However the observed mean differences were tested for significance using 2-way analysis of variance with the results presented in table 4.

Table 4: Summary of 2-ways ANOVA on the attitude of teachers towards the use of marking guide in scoring essay based on their teaching subjects and teaching experiences

Source of Variation	Sum of Squares	df	Mean	F	P-value	Partial Eta Square
Teaching subject	7822.00	2	3911.00	109.03	0.000	0.242
Teaching experience	1539.25	1	1539.25	42.91	0.000	0.059
Teaching subject & teaching experience	19.02	2	9.51	0.265	0767	0.001
Error	24536.05	684	35.87			
Total	35769.20	689				

R. Squared = 0.314 Adjusted R Squared = 0.309

Table 4 shows that the F-ratio obtained for teaching subjects 109.03 was significant at df of 2 and 684 at 0.0005 level of significance ($p < 0.05$). Thus teaching subject significantly influence the attitude teachers have on the use of marking scheme in scoring students responses in essay tests. It is also observed in table 4 that the calculated F-ratio for teaching

experience 42.91 was obtained at df of 1 and 684 at 0.0005 level of significance ($p < 0.05$). Thus teaching experience significantly influence attitude of teachers towards the use of marking scheme when scoring students responses in essay questions.

Again, in table 4 it is shown that F-ratio obtained for interaction effect between teaching subjects and teaching experience 0.265, was insignificant at df of 2 and 684 at 0.767 level of significance ($p > 0.05$). Thus interaction effect between teaching subjects and teaching experience do not significantly influence the attitudes of teachers towards the effective use of marking guide in scoring students responses in essay tests.

Additionally, table 4 also revealed that teaching subjects had larger effect size (with the partial eta square of 0.242), then that of teaching experience (partial eta square of 0.059) and the interaction effect between teaching subject and teaching experience (partial eta square 0.001).

Indeed, since teaching subjects are in three levels, and they significantly influence the attitude of teachers toward the use of marking scheme in scoring students responses in essay question, it is necessary to determine the direction of the significant influence or mean difference. This was done using post hoc multiple comparison tests via Bonferroni test, the results obtained are shown in table 5.

Table 5: Pairwise Comparison by Bonferroni Test

Compared Groups	Interval (CI)			95% Confidence	
	Mean diff	Std Error	p-value	Lower Bound	Upper Bound
Maths and Science Vs other subjects	8.57*	0.530	0.000	7.29	9.84
Maths and Science Vs language	5.45*	0.657	0.000	3.87	7.03
Language Vs other subjects	3.12*	0.598	0.000	1.68	4.55
Language Vs Maths and Science	5.45*	0.657	0.000	-7.03	-3.87
Other subjects Vs maths and Science	-8.57*	0.530	0.000	-9.84	-7.29
Other subjects Vs Language	-3.12*	0.598	0.000	-4.55	-1.68

***Means significant at 0.05 level**

In table5, it is shown that all the compared groups means were significant at 0.05 since ($p = 0.0005 < 0.05$) However their 95% confidence intervals between the lower and upper bounds differ. For instance, the comparison of the mean scores for the groups of mathematics and science teachers against other subject teachers, it was found that the mean score of the mathematics and sciences was 8.57 (95% CI, 7.29 to 9.84) significantly higher than that of the teachers of other subjects. This means difference in the population lies between 7.29 and 9.84 lower and upper marks at 0.0005 level of significant ($p < 0.05$).

When mathematics and science teachers mean score was compared to that of the language teachers, a statistically significant, means difference of 5.45 was obtained at 95% confidence interval which lies between 3.87 and 7.03 lower and upper marks i.e 5.45 (95% CI, 3.87 to 7.03), $p < 0.05$). The comparison between other subjects' teachers and that of mathematics and science teachers in table 5 shows that the mean score of other subject teachers was significantly less than that of the mathematics and science teachers by a mean difference of -

8.57. This mean difference was obtained at 95% confidence interval which lies between -9.84 and -7.29 lower and upper marks respectively at 0.000 level of significance, -8.57 (95% CI, -9.84 to -7.29), $p < 0.05$.

Considering the comparison between other subjects and language teachers, it is shown in the same table 5 that the mean score of the other subjects' teachers was significantly less than that of language teachers by a mean difference of -3.12. This mean difference was obtained at 95% confidence interval which lies between -4.55 and -1.68 lower and upper marks respectively at 0.000 level of significance. That is -3.12 (95% CI, -4.55 to -1.68), $p < 0.05$.

Furthermore, when the mean score of language teachers was compared to that of the mathematics and science subject, table 5 shows that the language teachers significantly scored less than the mathematics and science teachers by a mean difference of -5.45. This observed mean difference was obtained at 95% confidence interval which lies between -7.03 and -3.87 lower and upper, marks respectively at 0.000 level of significance. That is -5.45 (95% CI, -7.03 to -3.87), $p < 0.05$.

Finally in table 5, it is shown that when the mean scores of the language and other subjects' teachers were compared, that the language teachers significantly scored higher than their other subjects' counterparts by a mean difference of 3.12. This observed mean difference was obtained at 95% confidence interval, which lies between 1.68 and 4.55 lower and upper marks (bounds) at 0.000 level of significance. That is 3.12 (95% CI, 1.68 to 4.55), $p < 0.05$.

DISCUSSION OF FINDINGS

One of the findings from the study revealed that 48.84% and 51.16% of the teachers had negative and positive attitude respectively towards the use of marking guide in scoring essay tests. That means the gap between the number of teachers that expressed negative and positive attitude is not much so the willingness to use marking guide during scoring will not be enhanced thereby the achievement of maximize learning will be hindered. This is because based on the expectations of many in our society today concerning education it is expected that almost all the teachers should exhibit positive attitude towards the use of marking guide in scoring essay question in order to achieve maximize learning. It was also found that when teaching subjects were considered, a greater number of mathematics and science teachers exhibited positive attitude while only few of this group of teachers exhibited negative attitude. This greater number of mathematics and science teachers with positive attitude could be attributed to the nature of the subjects which involve calculation which requires step by step follow-up. So without marking guide the teachers may not effectively determine when the students are right, wrong or have skip a step. Again, questions on calculation are not mark rightly based on just the final answer but on how the students were able to apply the right methods and steps. So to be able to detect these, the teacher to solve the problem and then distribute the marks accountably steps by steps until the final right answer.

In another hand, teachers of languages and other subjects like economics, geography, Christian religious knowledge, social studies and civic education etc. may feel that marking the responses of their students can be done by mere reading through the students write-up and then determine the correct and incorrect statements. When attitude was considered generally, it was found that teaching subjects significantly influence the attitude of teachers toward the use of marking scheme in scoring essay test. A significant mean difference was observed when all the group mean scores were compared. This finding may be attributed to the

uniqueness in the subject matter and teaching subject matter knowledge. This finding is in line with the report of Stiggin and Conklin cited in Zhang and Burry-Stock (2003). They reported that teaching subjects significantly influence concerns teachers have on the quality of school-based assessment. The finding also corroborates that of Adams and Hsu in Zhang and Burry-stock (2003). They found that the concern about the quality of the school-based assessment differ significantly based on the teaching subjects which was in favour of mathematics and science teachers.

Furthermore, it was also found that a greater number of teachers with 11-20 years of teaching experience had positive attitude compared to their counterparts with 1-10 years teaching experience. This finding could be explained that teachers with 11-20 years of teaching experience have appreciated the use of marking guide after their past experience such as students complaints on their dissatisfaction in the marks they were given in relation to their peers who wrote similar points like them. The continuous occurrence of this experience can spur a good teacher to map out strategies that will help to solve that problem, which include the use of marking guide. Again this finding could be that teachers who are more experienced had witnessed the dangers and ill-effects of grading without marking guide more than their counterparts who are less experienced. So on that note, they decided to appreciate the use of marking guide in scoring, in order to achieve fairness and transparency in their marking thereby making the students to maintain and have confidence in their teachers.

In a general consideration of attitude it was also found that the attitude of teachers toward the use of marking scheme was influenced by their teaching experience, in favour of teachers with 11-20 years of teaching experience. This finding supports the popular saying that experience is the best teacher. Again the finding supports the report made by Kini and Podolsky (2016) that teaching experience positively relate with teachers' effectiveness which increase significantly towards 20-30 years of the individuals in the teaching career.

IMPLICATION OF THE FINDINGS

The findings from the study have some implications for instance the finding that teaching subjects and teaching experience significantly influence the attitude of teachers towards the use of marking scheme in scoring essay test. This implies that teaching subjects and teaching experience are predictors of teachers' attitude towards the use of marking scheme in scoring essay tests.

Secondly, it was found that the number of teachers with positive and negative attitude differ significantly based on their teaching subjects in favour of mathematics and science teachers. This implies that a greater number of mathematics and science teacher use marking scheme in scoring essay test more than teachers of other subject. It also implies that most teachers' concern are on how well they can present their lesson and not "on how well they can assess their students". Nevertheless it was also found that some of high experienced teachers negative attitudes towards the use of marking scheme in scoring essay test. This implies that teachers' effectiveness in carrying out their assessment roles may vary irrespective of their teaching experience, because at every stage of the teaching career, teachers with the same level of teaching experience may not necessary have the same level of effectiveness in carrying out their roles.

RECOMMENDATIONS

From the implications of the findings, the following recommendations were made:

- i. Policy makers should ensure that no school is highly concentrated with less experience teachers. In other words there should be equitable distribution of less and more experienced teachers in all the school. This will encourage mentoring among the teachers.
- ii. School administrators should encourage collaborative and mentoring policy in the school system by pairing the more experienced teachers with the less experienced ones.
- iii. There should be seminar and workshop where issues related to assessment practices will be discussed in relation to scoring of essay questions using marking guide.
- iv. Stability in teaching a subject and assessment practices should be encourage. This will help teachers to refine their non-productive instruction, methods and strategies at a given class and subject.
- v. Teachers should try to embark on strategies that will help them overcome some of the challenges of scoring essay tests.
- vi. There should be up-date in the acquisition of teaching subject knowledge and the general knowledge of assessing students.
- vii. Teachers should be encourage on how to build positive attitude towards assessment practices mostly on the area of using marking scheme in scoring essay tests.
- viii. Teachers as coach and assessor should be encourage on how to have equitable concern on “how well to present lesson” and “how well to assess their students” mostly in relation to scoring their performances.

CONCLUSION

The study examined secondary schools teachers’ attitude towards the use of marking scheme based on their teaching subjects and teaching experiences. From the findings of the study it is then concluded that teaching subjects and experience are influential to teachers’ attitudes toward the use of marking scheme in scoring essay test. It was also concluded that the number of teachers with negative attitude towards the use of marking scheme in scoring essay test is detrimental to the school system in enhancing quality assessment.

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