
RELATIONSHIP BETWEEN SENIOR HIGH SCHOOL TEACHERS' KNOWLEDGE AND PRACTICES OF CONTINUOUS ASSESSMENT

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ABSTRACT: *One major concern of stakeholders in education across the world is how to improve students learning outcomes. To address this, a number of researchers have unearthed various factors that affect students' learning outcomes and recommended ways of addressing these factors to improve students' learning outcomes. This study is posited on the fact that key among these factors is the effect of teachers' assessment practices. The study, therefore, sought to investigate the level of high school teachers' knowledge of how to assess students' learning and the relationship between their knowledge and how they implement it in assessing students' learning formatively. A sample of 75 teachers and 750 students, selected from the 10 senior high schools in Southern Ghana participated in the study. Findings from the study showed, among other things, that though teachers have good knowledge of continuous assessment, there was a sharp contrast between this and their classroom practices. Implications of these findings for policy makers are discussed.*

KEYWORDS: continuous assessment, teachers' knowledge, teachers' practices, formative assessment

INTRODUCTION

The competences required of a 21st century teacher is to possess proficient skills in assessment since it is intimately linked to effective teaching and learning. This is because assessment forms an integral part of teaching and learning with a role of informing teachers on what and how to teach and how and what students learn leading to desired learning outcomes, and collecting information about student's understanding of concepts, as well as their educational strengths, gaps and deficiencies (Yigzaw & Bishaw, 2015). It is, therefore, a critical component of effective teaching and learning leading to improved learner outcomes by enhancing teachers' teaching and students' learning (Black & William, 1998; Fisseha, 2010). However, assessment and teaching nowadays have become too examination driven making students and teachers focus on how to pass exams which to a large extent has made the focus of assessment lost its ideal value (Garrison & Ehringhaus, 2010; Myres, 2004; Stiggins, 2009). Assessment, in the context of education, is defined as the systematic process of gathering, interpreting, recording, and using information about students, curricula and programmes, and educational policies (Harlen, Gipps, Broadfoot, Nuttal,

1992). These information are used to make crucial decisions and planning for instruction and learning. In a school setting, according to (Gullo, 2005; Mehrens & Lehmann, 1991), decisions about students include managing classroom instruction, placing students into different types of educational programmes, assigning them to appropriate categories, guiding and counselling them, selecting them for educational opportunities, and credentialing and certifying their competencies.

In order to collect data to make decisions on students, numerous range of procedures must be used to gain information about students' learning. It implies that assessing students' competences involves collecting information that will help the teacher decide on the degree to which the students have achieved the learning targets. Thus, assessment must focus on the quality of a student's performance in the cognitive, affective, and psychomotor domains (Alufohia & Akinlosotu, 2016). A number of researchers (Abejehu, 2016; Mehrens & Lehmann, 1991; Yigzaw & Bishaw, 2015) have identified different assessment techniques used for collecting information on students. These include formal and informal observations of a student, paper-and-pencil tests and examinations, students' performance on homework, laboratory work, research papers, projects, presentations and during oral questioning, role-playing, VIVA VOCE, and analysis of a students' records (Nitko, 2004). The use of these assessment techniques effectively in the classroom, undoubtedly, provides opportunities for students to demonstrate their knowledge, skills, and abilities to the apex. There are also heterogeneous types of assessment that serve as devices for educational decision making. The types of assessments are formative assessment categorised into assessment for learning and assessment as learning, and summative assessment or assessment of learning (Abejehu, 2016). These types of assessment present their unique characteristics and principles justifying when and how to apply them in the classroom settings. Formative assessments are activities taken at varying intervals throughout a course to provide information and feedback that will help improve the quality of students' learning - what the individual students need to practice, to be re-taught and to learn next- and the quality of the course itself. On the other hand, summative assessments are product-oriented activities taken by students at the end of a unit, term or semester to provide information and feedback that provide informative on how effective the teaching and learning process has been (Alufohia & Akinlosotu, 2016; Black & Wiliam, 1998). Unquestionably, it can be established that teachers must use formative assessment effectively since it is a stage where teachers can reflect and critically think about appropriate methodologies and remedial strategies that would efficiently maximize students learning outcomes while students also use the prompt and constant feedback from formative assessment to improve on their learning.

Continuous assessment have been defined and interpreted differently by researchers within the context of education. Greaney (2001) defines assessment as any procedure or activity that is designed to collect information about the knowledge, attitude or skills of the learner or group of learners. According to Duplessis, Prouty, Schubert, Habib and George (2003), continuous assessment refers to making observations and collecting information periodically to find out what a student knows, understands and can do with the target of making an ongoing judgment about how well he/she is doing.

Continuous assessment refers to a formative assessment process concerned with finding out, in a systematic manner, the overall gains that a student has made in terms of knowledge, attitudes and skills after a given set of learning experiences (Mehrens & Lehmann, 1991; Okonkwo, 2002). These definitions imply that a student's final grade after a programme of instruction is an aggregation of all the performances exhibited in the cognitive, affective and psychomotor domains during the duration of the course. Since continuous assessment takes place continuously, it makes it possible for the teacher to monitor the improvement or failure of students in order to give them support and guidance (Yigzaw & Bishaw, 2015). Continuous assessment, therefore, "affirms high-order creative and critical thinking resulting in cognitive, affective and behavioural outcomes among students; and reduces instructional drudgery and increases personal satisfaction among teachers" (Puhl, 1997, p.2). It is evident from the discussion that continuous assessment has a number of advantages over the one-shot summative examination in that it is cumulative, comprehensive, systematic, formative, diagnostic and guidance-oriented in nature (Alufohia & Akinlosotu, 2016; Mehrens & Lehmann, 1991).

Different countries have different objectives for introducing continuous assessment in their schools and Ghana is no exception. In Nigeria for instance, the main objective of introducing continuous assessment is not only to meet the demand for more comprehensive assessment systems that impact positively on learning achievement but to make it a quality control and assurance tool whose scores should form a substantial percentage of the final certificate examinations. According to the Ministry of Education and Culture (1993) of Namibia, the main objective/purpose of continuous assessment is to develop a reliable picture of each individual learner's progress and level of achievement in relation to minimum competencies specified in the subject syllabuses. The objectives of the continuous assessment programme in Zambia are two-fold: firstly, to promote the use of formative assessment so as to improve the quality of learning and teaching and secondly, to establish a regular system of managing cumulative pupils' performance marks for purposes of using them in combination with final examination marks for selection and certification (Kapambwe, 2010). In Nepal, continuous assessment fulfils a major objective of improving the school promotion process or as an indicator of school quality which provides teachers with feedback about students' performance and achievement (Mwebaza, 2010). Continuous assessment in Uganda fulfils the objective of creating excellence in the national external examination and teachers have had to rely on continuous assessment in order to monitor their students' academic progress and performance (Mwembaza, 2010). In Ghana, the purpose of continuous assessment is not different and may be seen as embodying all the fundamental concepts of the continuous assessment practices of most of the countries mentioned above. A successful implementation of the continuous assessment programme at the senior high school level depends heavily on the teacher, it is important that they are equipped with the requisite knowledge in order to effectively execute this important function.

Undoubtedly, effective practice of continuous assessment would yield greater learning outcomes. However, a number of researches have shown that teachers do not implement continuous assessment as stipulated in the curricula at the various levels of education. For instance, Byabato and Kisamo (2014) investigated the implementation of continuous assessment in Tanzania Ordinary Secondary Schools and its implications on the quality of education and found that its implementation was not properly carried out by teachers and identified lack of teachers' integrity, lack of uniformity in both the assessment tools used and procedures for continuous assessment recording and reporting as the main causes. In general, teachers showed little or no in-depth capacity of the assessment practices. Clement and Ayibatunde (2014) examined the causes of the science teachers' indifference to the implementation of continuous assessment in secondary schools in Rivers State and found that many science teachers are not professionally qualified and as such lack the skills to construct and administer continuous; large student population or classes; lack of motivation; lack of facilities for record keeping; and attitude and influence of parents and school administrators, are some of the causes for the teacher indifference in implementing continuous assessment. Olatomide and Oluwatosin (2014) examined teachers' continuous assessment scores input into Primary Six Leaving Certificate in Akoko South-West Local Government Area in Ondo State, Nigeria. They found that teachers' continuous assessment procedures were systematic, but lacked comprehensiveness and cumulateness and also found that the summation of scores sent by class teachers to the ministry of education in processing primary six leaving certificates issued to pupils by head teachers were manufactured. It is clear that there are deficiencies and inconsistencies in the implementation or practices of continuous assessment in our schools.

Teachers' knowledge of continuous assessment practices is one important factor in the implementation of continuous assessment at all levels of education since it influences the way they teach and assess their students (Alufohia & Akinlosotu, 2016). However, studies (Alufohia & Akinlosotu, 2016; Marcus & Ayibatonye, 2014; Tebeje, 2009) have shown that teachers, who are the implementers of the curriculum, seem to have little or no knowledge about what continuous assessment is. For example, Alufohia and Akinlosotu (2016) investigated the knowledge and attitudes of secondary school teachers towards continuous assessment practices in Edo Central Senatorial District, Nigeria and found that majority of the teachers, perceived continuous assessment practices as a systematic and comprehensive system of evaluation but have inadequate knowledge of its cumulative and guidance oriented characteristic and teachers' attitude towards continuous assessment practices was negatively skewed. Marcus and Ayibatonye (2014), on their part, investigated how science teachers implement continuous assessment and found that many of the science teachers are not professionally qualified and also lack the knowledge/skills to construct and administer continuous assessment in schools. Again, Tebeje (2009) reported that university teachers' lack of knowledge of continuous assessment.

This study is based on the assumption that for continuous assessment to be effectively implemented to yield desired learning outcome, teachers must be knowledgeable in continuous assessment and must practice continuous assessment. This means there should be a positive relationship between teacher knowledge and practice of continuous assessment to yield the needed students' learning outcomes. The conceptual model for this study is presented in Figure 1.

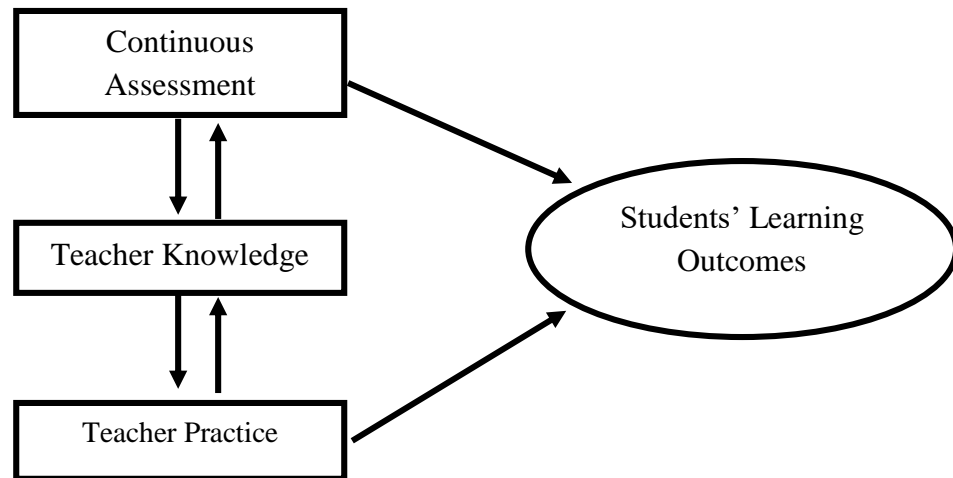


Figure 1 – Model for the impact of teachers’ knowledge and practice continuous assessment on students’ learning outcomes

Though there are a number of studies which have investigated teacher knowledge and practices of continuous assessment at different levels of education, there appear to be very little research that sought to investigate the relationship between teachers’ knowledge and practices of continuous assessment at the senior high school level. The following questions guided the study:

1. What is the level of knowledge of senior high school teachers on continuous assessment?
2. To what extent do senior high school teachers’ practice continuous assessment in their classrooms?
3. What is the relationship between teachers’ knowledge and their practice of continuous assessment at the senior high school level?
4. What is the difference in teachers’ knowledge of continuous assessment among teachers in boys only, girls only and mixed senior high schools?
5. Are there any differences in teachers’ practice of continuous assessment among teachers in in the different school types?
6. How do students’ assessment of teachers’ practices of continuous assessment compare among students in the different school-types?

Nature of the instruments used

Three questionnaire instruments, referred to as Instruments 1, 2, and 3, were used for data collection. Two of these (Instrument 1: Teachers’ knowledge of continuous assessment questionnaire and Instrument 2: Teachers’ practice of continuous assessment questionnaire) were completed by teachers while the third instrument (i.e., Instrument 3: Students’ assessment of teachers’ continuous practice questionnaire) was completed by students.

Instrument 1 was composed of 20 items based on the following six previously identified characteristics of continuous assessment: being 1) comprehensive, 2) formative, 3) systematic, 4) cumulative, 5) diagnostic, and 6) guidance oriented. Twenty statements eliciting these

characteristics (four each of the first two characteristics and three each of the rest) were made and teachers were expected to indicate their level of agreement and/or disagreement of them on a five-point Likert scale (of Strongly agree, Agree, Not sure, Disagree and Strongly disagree).

Instrument 2 contained 16 items which were aimed at surveying how these teachers practiced what they knew about continuous assessment. As in Instrument 1, the 16 items on this second instrument required teachers to show their level of agreement and/or disagreement of statements that pointed to how they implemented continuous assessment approaches required of them in the curriculum. Again a five-point Likert scale was used.

Instrument 3, the student questionnaire, was essentially an adaptation of the teachers' practice questionnaire (i.e., Instrument 2) for use by students. The adaptation was done to change the items directed at teachers to direct them to students without changing the content. For instance, an item such as, *I make students aware that their final grade for the term will be the aggregate of their end-of-term examination scores and scores of all assessments conducted during the term*, on the teacher practice instrument was transformed into, *Our teacher make us aware that our final grade for the term will be the aggregate of our end-of-term examination scores and scores of all assessments conducted during the term*. Thus, Instrument 3, also had 16 items just like Instrument 2 and no item was on one of them which did not have a counterpart on the other. The purpose of Instrument 3 was to help us triangulate what teachers said about their continuous assessment practices.

Validity and Reliability of the instruments

To ensure that the items were clear, unambiguous and relevant for the intended purpose content and construct validity of the instruments were determined. This was done by subjecting the instruments to review by two professors in assessment and five experienced in-service senior high school teachers. Originally, Instrument 1 had 24 items but after the review, four items were taken off leaving the 20 items that were used in the study.

To determine the reliability coefficient of the instruments, the instruments were piloted by administering the instruments to 22 teachers and 90 students from two randomly selected senior high schools of similar characteristics like the schools used in the study. From the pilot, the Cronbach's alpha reliability coefficients for the teacher's knowledge, teachers' practice and students' assessment of teachers' practice questionnaires respectively were obtained as .81, .77 and .79. In general, for an instrument such as the one used in the study, where there is no right or wrong answers, Cronbach's alpha is a measure of the average of the item-to-item correlations for those items making contained in the instrument. The Cronbach's alpha, therefore, can be described as a measure of the internal consistency of the items in the instrument (i.e., the extent to which the items on the instrument measures the same construct). Though Cronbach's alpha is affected by a number of factors such as the number of items in an instrument, Nunnally (1978) recommended .7 as the minimum level acceptable. Using Nunnally's (1978) criterion, therefore the three instruments were considered to have acceptable reliabilities for use in the study.

Procedures

This study employed the cross-sectional survey design to investigate the knowledge of teachers and their practices of continuous assessment in senior high schools in Southern Ghana. A sample of 75 teachers, comprising 54 males and 21 females, who teach elective physics and elective mathematics participated in the study. In addition, 750 students comprising 10 randomly selected from each participating teachers' classes also participated in the study. Data collection lasted for ten weeks.

As already mentioned, three questionnaire instruments were used for data collection, two of which were completed by the participating teachers while the third was completed by their students. In addition, a sample of the students' class exercise books for the subject the teacher in focus teaches were reviewed to ascertain the tasks used by each participating teacher to assess their students' learning. This data was vital in further triangulating what the teachers and students said about the former's assessment practices.

In each of the ten schools four days were spent collecting data from participants of the study. On the first day, the teachers' knowledge and teachers' practice questionnaires were administered in turn while the students' assessment of teachers' practice questionnaire was administered on the second day. Then on the third and fourth days, samples of the students' class exercise books for the subject each teacher in focus teaches were selected and the exercises documented in them noted to ascertain the tasks used by the teachers to assess their students' learning.

RESULTS

Level of teachers' knowledge of continuous assessment

The first research question sought to investigate the knowledge level of senior high school teachers in the Cape Coast Metropolis on continuous assessment. To do this, mean was used to determine teachers' level of knowledge on continuous assessment. Table 1 shows the results of the mean and standard deviation of teachers' level of knowledge, teachers' practices and students' assessment of teachers' practice of continuous assessment.

Table 1. Summary analysis of teachers' knowledge, teachers' practices and students' assessment of teachers' practice of continuous assessment

| Variable | N | M | SD | Minimum | Maximum |
|---|-----|------|-----|---------|---------|
| Teachers' Knowledge | 75 | 4.02 | .34 | 3.20 | 4.85 |
| Teachers' Practices | 75 | 2.31 | .38 | 1.25 | 3.12 |
| Students' assessment of teachers' practices | 750 | 2.30 | .65 | 1.12 | 4.75 |

Means and standard deviations were used to answer research questions one and two. To interpret these results, a mean value between 0 – 2.4 was interpreted as low knowledge or practice and a range of 3.4 – 5.0 as high knowledge or practice. All negatively stated items were also recoded to allow for consistency in analysis. As shown in Table 1, teachers have proficient knowledge of

continuous assessment ($M = 4.02$, $SD = .34$). The spread of the mean of teachers' knowledge was moderate ranging from 3.20-4.85. This indicates that majority of the senior high school teachers are very knowledgeable with the process of continuous assessment.

Extent of teachers' practices of continuous assessment

The focus of the second research question was to investigate the extent to which senior high school teachers in the Cape Coast Metropolis practice or implement continuous assessment in their classroom. Figure 2, the scatter plot below, shows the extent of teachers' practice of continuous assessment.

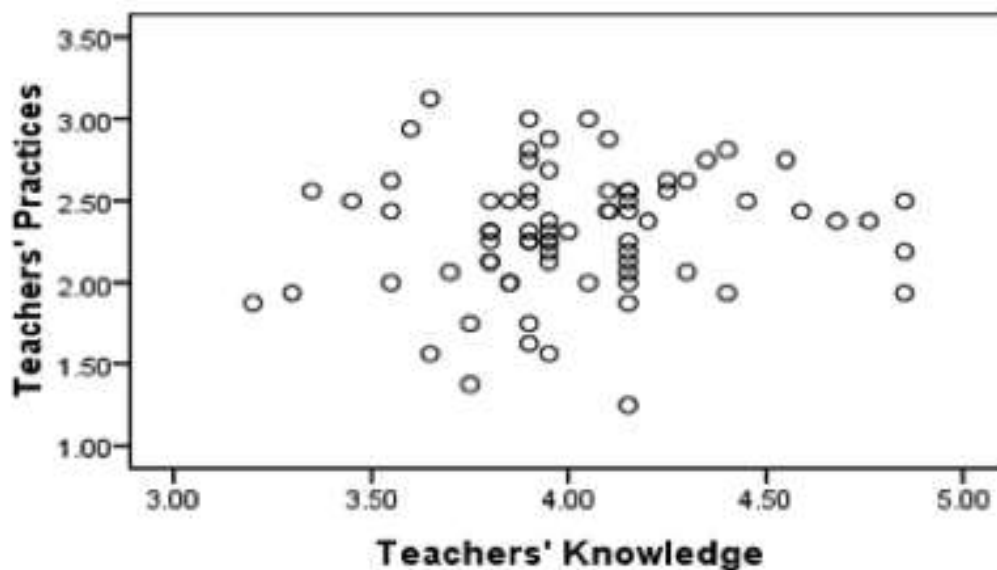


Figure 2: Scatter plot of teachers' knowledge and their practices of continuous assessment

This figure was used in conjunction with aspects of Table 1 that quantified the extent of teachers' practices of continuous assessment. As indicated in Table 1, teachers do not implement or practice continuous assessment adequately in their classrooms ($M = 2.31$, $SD = .38$). The spread of the mean of teachers' practices of continuous assessment was moderate with a range of 1.25 – 3.12. This result indicated that teachers do not adequately implement or they are not sure of the extent to which they are implementing continuous assessment in their classrooms. To triangulate the extent to which teachers are practicing continuous assessment in their classrooms, students were also asked to assess teachers' practices of continuous assessment. As shown in Table 1, students confirmed that their teachers do not adequately implement continuous assessment in their classrooms ($M = 2.30$, $SD = .65$). Careful analysis of the spread of the means of students' assessment of how their teachers implement continuous assessment shows that it was high and ranging from 1.12 – 4.75. This finding indicates that while the extent to which some teachers implement continuous assessment was too low, others implement continuous assessment in their classrooms to a large extent.

Relationship between teachers’ knowledge and teachers’ practices of continuous assessment

The third research question was aimed at investigating whether there is any relationship between teachers’ knowledge and their practices of continuous assessment at the senior high school level. This relationship was investigated using Pearson product-moment correlation coefficient

Table 2. Relationship between teachers’ knowledge practice of continuous assessment

| Variable | N | M | SD | r | p |
|---------------------|----|------|-----|-----|------|
| Teachers’ Knowledge | 75 | 4.02 | .34 | .10 | .375 |
| Teachers’ Practices | 75 | 2.31 | .38 | | |

As shown in Table 2, there was a positive correlation between the two variables but the relationship was not statistically significant ($r = .10, n = 75, p = .375$). An r^2 value of .01 indicates that teachers only practice just 1% of what they know in continuous assessment in their respective classrooms. In other words, teachers are not practicing much of what they know about continuous assessment adequately in their respective classrooms.

Comparison of teacher’s knowledge of continuous assessment among school-types

The fourth research question sought to test whether there is no statistically significant difference in teachers’ knowledge of continuous assessment among teachers in boys only, girls only and mixed senior high schools. Three groups of students were compared in this research question (i.e., those from an all-boys or boys only school, and their counterparts from all-girls or girls only schools as well as those in mixed schools). As a result, the statistical test employed to answer this research question was the one-way analysis of variance (ANOVA) test. This research question was tested using a one-way analysis of variance (ANOVA) at the 5% significant level. Results of this test is presented in Table 3 below.

Table 3. Comparison of teachers’ knowledge of continuous assessment among school-types

| | Sum of Squares | df | Mean Square | F | p |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | .237 | 2 | .118 | 1.015 | .367 |
| Within Groups | 8.399 | 72 | .117 | | |
| Total | 8.636 | 74 | | | |

As indicated in Table 3, no significant difference was statistically revealed from the analysis [$F(2, 72) = 1.015, p = .367$] in mean scores of teachers’ knowledge of continuous assessment among teachers in boys only ($N = 24, M = 4.02, SD = .39$), girls only ($N = 25, M = 4.08, SD = .29$) and mixed ($N = 26, M = 3.95, SD = .34$) senior high schools. It was therefore concluded that the knowledge of continuous assessment among teachers in the different school types (i.e., boys only, girls only and mixed senior high schools) did not differ significantly.

Comparison of teachers’ practices of continuous assessment among teachers and students across school-types

The fifth research question sought to find out whether there are statistically significant differences in teachers’ practice of continuous assessment, as reported by teachers in the different school types (i.e., boys only, girls only and mixed senior high schools). As was the case of the first research question, because the number of groups of teachers being compared was three, the statistical employed here was also tested using a one-way analysis of variance (ANOVA) at a significant level of 5%. Comparison of teachers’ views on the extent to which they practice continuous assessment across the three school types is indicated in Table 4.

Table 4. Comparison of teachers’ practices of continuous assessment among school-types

| | Sum of Squares | df | Mean Square | F | p |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | .370 | 2 | .185 | 1.278 | .285 |
| Within Groups | 10.411 | 72 | .145 | | |
| Total | 10.781 | 74 | | | |

From Table 4, it can be seen that there was no statistically significant difference [$F(2, 72) = 1.278, p = .285$] in mean scores of teachers’ practices of continuous assessment among teachers in boys only ($N = 24, M = 2.23, SD = .36$), girls only ($N = 25, M = 2.40, SD = .32$) and mixed ($N = 26, M = 2.31, SD = .44$) senior high schools.

Comparison of students’ assessment of their teachers’ practice of continuous assessment

The sixth research question was aimed at assessing whether students’ assessment of their teachers’ practices of continuous assessment is comparable among students in the different school-types across the three school types. Again, because three groups of students were involved (i.e., those from an all-boys or boys only school, and their counterparts from all-girls or girls only schools as well as those in mixed schools), the statistical test employed to answer this research question was the one-way analysis of variance (ANOVA) test. And as before, the test was conducted at the 5% level of significance. The outcome of this test is presented in Table 5.

Table 5. Comparison of students’ assessment of teachers’ practices of continuous assessment among school-types

| | Sum of Squares | df | Mean Square | F | p |
|----------------|----------------|-----|-------------|---------|-------|
| Between Groups | 152.149 | 2 | 76.075 | 351.967 | .000* |
| Within Groups | 161.458 | 747 | .216 | | |
| Total | 313.607 | 749 | | | |

A cursory look at Table 5 indicate that there was a statistically significant difference [$F(2, 747) = 351.97, p = .000$] in mean scores of students’ assessment/perception of their teachers’ practices of continuous assessment among teachers in boys only ($N = 209, M = 1.78, SD = .43$), girls only ($N = 197, M = 2.99, SD = .61$) and mixed ($N = 344, M = 2.23, SD = .38$) senior high schools.

As is typical of ANOVA test, ANOVA can reveal in general if a study’s results point to the possibility of a significant difference among the groups being compared. However, it is not possible to determine where

a possible difference is coming from. Consequently, once, a significant difference was detected among the three groups, a post hoc analysis was further done to show exactly which of the groups is causing the difference. In this study Tukey Test / Honest Significant Difference was used to find out which specific group's means (compared with each other) are different. Tukey's test was used because of its ability to compares all the possible pairs of groups' means, even when the groups have unequal sizes, while reducing the probability of committing a Type 1 error . The results of this test is presented in Table 6 below.

Table 6. Post hoc analysis of students' assessment of teachers' practices of continuous assessment among school-types

| (I) | (J) | Mean difference | p |
|------------|------------|-----------------|-------|
| Boys only | Girls only | -1.21 | .000* |
| | Mixed | -.45 | .000* |
| Girls only | Mixed | .76 | .000* |

Table 6 shows that there was a statistically significant difference in mean scores of students' assessment of teachers' practices of teachers between boys only and girls only schools with teachers in girls only schools practicing continuous assessment than their boys only counterparts. There was a statistically significant difference in mean scores of students' assessment of teachers' practices of teachers between boys only and mixed schools with teachers in mixed only schools practicing continuous assessment more than their boys only counterparts. Also, there was a statistically significant difference in mean scores of students' assessment of teachers' practices of teachers between girls only and mixed schools with teachers in girls only schools engaging in more continuous assessment practices than their mixed counterparts. This implies that according to the students, teachers in girls only schools engage in more continuous assessment practices than those in mixed school and those in mixed schools out-practice those in boys only schools.

DISCUSSION

The first result of this study indicated that majority of the senior high school teachers are very knowledgeable in continuous assessment. Most of the participating senior high school teachers had adequate knowledge of continuous assessment. This could stem from the fact that they took courses in educational assessment at the university level and might additionally have had training in assessment through continuous professional development. These possibly could had contributed to their rich knowledge in continuous assessment. This finding also allude to the fact that proper integration of continuous assessment practices into their teaching could enhance the teaching and learning process, resulting in teachers' ability to identify the weaknesses of the students in order to assist them where necessary (Mokotedi, 2011). Proficient understanding of continuous assessment practices exhibited by teachers in this study is an indication that they are abreast with its characteristics which include formative, cumulative, systematic, guidance-oriented, comprehensive and diagnostic. With this appreciable level of continuous assessment, we posit that if proper interventions are implemented and in a timely manner to sharpen the skills of teachers in the effective implementation of continuous assessment and how to use the outcomes of their assessment practices to support student learning, students' learning outcomes will improve tremendously (Hermanson, Osmundson, Dai, Ringstaff, & Timms, 2015; Mason & McMahon,

2009). Surprisingly, the finding from this study contradicts findings by Alufohai and Akinlosotu (2016), Olantunde and Oluwatosin (2014) and Tebeje (2009) who found that teachers have inadequate knowledge of continuous assessment.

The second result of this study indicated that teachers do not adequately implement or they are not sure of the extent to which they are implementing continuous assessment in their classrooms. This finding is so surprising since rich knowledge of continuous assessment should yield a corresponding implementation of it in the classroom. The implementation of continuous assessment policy in Ghana stipulates that teachers must “give assignments/exercises fortnightly and record the scores of four of them with a maximum score of 10 each; conduct three class tests in a term with a subtotal of 40; and give students at least four projects/homework in a term with a subtotal of 20. The three assessments give a total score of 100, which scales down to 30 % as the internal mark for each student which is forwarded to WAEC where 70 % is obtained for external assessment” (Asamoah-Gyimah & Anane, n.d., p. 28).

This means teachers must accept the philosophy of continuous assessment and be convinced that continuous assessment is a better way of assessing students’ learning outcomes and performance. This study revealed that teachers probably overlooked the significant role continuous assessment plays in improving students’ learning outcomes (Yigzaw & Bishaw, 2015). It is acknowledged that the main objectives of continuous assessment is to promote the use of formative assessment to improve the quality of teaching and learning and to establish regular system of managing the implementation of the curricula (Deneen & Brown, 2016; Kapambwe, 2010). Thus, we accept the view of the process of continuous assessment as a powerful process, which when implemented satisfactorily in our educational institutions, has the potential of enhancing students’ learning outcomes (Arega, 2014). Appropriate implementation of continuous assessment in our classrooms, undoubtedly, improves quality and academic excellence. Consequently, we recommend to schools to strictly ensure that teachers continuously assess students’ learning by giving adequate tasks and prompt feedback to students since learning is the main reason why schools are established (Abejehu, 2016; Hyland, 2000).

Our view is that for students’ learning outcomes to improve, there should be a strong relationship between teachers’ knowledge and practices of continuous assessment. To the contrary, the third finding of this study was the existence of a weak positive relationship between teachers’ knowledge and practices of continuous assessment in the classroom. This finding confirms the study of Hermanson et al. (2015) who found no evidence of relationship between teachers’ assessment practice and knowledge of formative assessment even though they hypothesized a positive significant relationship between the two. In our view, this finding is an indication that teachers are not practicing what they know about continuous assessment adequately in their respective classrooms. It could be due to, as other researchers have explained, the fact that teachers complain about the potential of continuous assessment in the classroom increasing their workload, being time consuming, tiresome, and possibly because teachers themselves lack the skills in constructing the needed assessment tasks (Abejehu, 2016).

This view of ours is supported by studies (for example, Deneen & Brown, 2016) that have shown that conceptions held by teachers about the purposes of assessment influence implementation of assessment practices at all educational levels. Again, an emerging body of research suggest that teachers' way of conceptualizing the practice of continuous assessment is also a major contributing factor to their unwillingness to execute it appropriately in their classrooms. Constructive teachers' conceptions of assessment have been shown to precipitate useful assessment practices which invariably enhances students' learning; while undesirable conceptions of assessment may play a momentous role in teachers resisting or subverting assessment policies and intended practices (Aboagye, Ossei-Anto, & Johnson, 2011; Deneen & Brown, 2016).

The fourth finding of this study is that there was no statistically significant difference in teachers' knowledge of continuous assessment among teachers in boys only, girls only and mixed senior high schools. This means all the teachers in the three school-types had the same level of knowledge of continuous assessments. The null hypothesis of no difference was confirmed. This finding possibly emanated because most of the teachers attended tertiary institutions and went through the same level of content on assessment and also because they were all practicing in similar or same school environments. This result confirms findings of Hermanson et al. (2015) that knowledge level of teachers has no relationship with school-types.

Similarly, our study did not find any significant difference in the practice of continuous assessment among teachers' in the three examined school types from the participating teachers' response. However, when this was triangulated with data from their students, a different conclusion was drawn. This is discussed in the sixth finding that follows.

The sixth finding of this study showed that there was a statistically significant difference in students' assessment of teachers' practices of continuous assessment among teachers in boys only, girls only and mixed senior high schools. As we found, according to the participating students' assessment, teachers in girls only schools engaged in more continuous assessment practices than those in mixed school while those in mixed schools out-practiced the same than their counterparts in the participating boys only schools. This confirms the fact that school type makes a difference in the extent to which assessment is practices (Ajayi, 2006; Philiat & Wanjobi, 2011).

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this study it can be concluded that senior high school teachers in the Cape Coast metropolis have proficient knowledge of continuous assessment, but they do not implement continuous assessment adequately in their classrooms. This was exhibited by the existence of a very weak positive relationship between teachers' knowledge and practices of continuous assessment. In addition, though this study did not find any statistically significant difference in teachers' knowledge of continuous assessment among teachers in the three school-types used in the study and teachers' report also did not point to any differences in their implementation of continuous practice, students' assessment of their teachers' practices of continuous assessment pointed to significant differences in the practice as teachers in girls only schools engaged more in

the practice of continuous assessment than those in mixed school and those in mixed schools out-practiced those in boys only schools.

Our recommendation, therefore, is that school authorities should step up efforts to monitor and supervise teachers' continuous assessment practices since these can help improve students' learning outcomes and teachers' teaching methodologies. In addition, regular workshops and seminars should be organized for teachers to enable them see the urgent need in implementing continuous assessment effectively in their classrooms. We acknowledge that though teachers and students in senior high schools in Ghana have similar characteristics as those who participated in this study, the generalizability of the results of this study may be limited by factors such as our use of self-report surveys. It is, therefore, further recommended that future studies may should endeavour to employ multiple methods of data collection to gain adequate insights into issues bothering continuous assessment.

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