RESEARCH ARTICLE

TEACHERS’ PERCEPTIONS AND PRACTICES OF AUTHENTIC (PERFORMANCE-BASED) ASSESSMENT AT THE BASIC SCHOOL LEVEL IN GHANA

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Abstract

As a unique form of assessment, authentic assessment tends to focus on contextualised tasks that enable learners to exhibit their proficiency in a more realistic setting. The study was aimed at exploring teachers’ perceptions and practices of authentic (performance-based) assessment at the basic school level in Ghana. A descriptive survey design was adopted with an accessible population estimated at 1,000. However, 286 respondents were sampled for data collection using the purposive and accidental sampling technique. A 10-item questionnaire with r = .90 was used to collect data which were analysed using mean and standard deviation. The findings of the study revealed that most teachers at the basic school level have positive perceptions about authentic assessment. Also, it was revealed that most teachers practise authentic (performance-based) assessments at the basic school level. The researchers recommended that the education agencies and heads of schools should periodically organise in-service training, workshops, and seminars to equip teachers with contemporary issues on an authentic assessment like computer-assisted programs. Again the government should liaise with other stakeholders to make available adequate funds and instructional time for teachers to facilitate the smooth practice of authentic assessment in schools.

Introduction:

Huba and Freed (2000) define assessment as a process of collecting and discussing information from several sources to cultivate a deepunderstanding of what learners recognize, comprehend, and can do with their knowledge (cognitive) as a result of the educational proficiencies. Correspondingly, Assessment in education is usually defined as the systematic process of gathering and discussing information as evidence as we document learners’ learning outcomes and the level of learner achievement (Nelson & Nelson, 2001; Hogan, 2007; Amedahe, 2008; Anane & Asamoah-Gyimah, 2019). Conversely, educational theories and practices have intensely altered over the past few decades. This alteration involves a diverse approach to the teaching and learning process which therefore means including a new approach to assessment since assessment has proven to be the heart of education. Sadler (2009) asserted that “assessment refers to the making of evaluation on learners’ overall performance and generating
assumptions regarding their learning and production education-wise, which include the quality of achievement in tasks such as tests, projects, reports, and examinations”. It has become common more lately among educational activists to disparage traditional (old) testing because of its emphasis on consequences that will not serve the learners beyond the classroom.

However, Authentic (Performance-Based) Assessment has emerged out of this criticism with the potential that assessment can be constructed to advance both learning and teaching. This means that the criticism is made up of substance. For instance assessment in various subjects in Ghana is subjugated by traditional testing from the classroom to the national level. The obvious analysis has been largely gullible on authentic assessment and authentic outcomes pose problems as well; it seems to have palpable solutions in appropriate quantity to education ((Kankam, Bordoh, Eshun, Bassaw & Korang, 2014). Assessment continues to be at the centre of an animated deliberation taking place in educational reform. The measure of learner learning, whether the assessment is standardized or alternative, inevitably includes theories, techniques, practices, applications, and outcomes (McMillan, 2001; Rudner & Schafer, 2002).

The argument for assessment, as a measure of educational outcomes, is that it is anticipated to improve teaching and learning, and contribute to general school enhancement (McMillan, 2001; Shepard, 2009). In an endorsement, Bekoe, Eshun, and Bordoh (2013) posited that assessment aids the teacher to discern the level of understanding of the learners and their ability level. Similarly, Aina (2005) conjectured that education ought to focus on learners’ totality (domain): cognitive, affective, and psychomotor to create learners that are well-adjusted in terms of physical, emotional, and intellectual. However, Mohamed, Abdullah, and Ismail (2006) stated that assessment practices nowadays emphasis too much on assessing content mastered by the learners and give too little attention to the skills. They further stressed that educators must not only assess content but also emphasise knowledge and skills such as to create, reflect, solve problems, collect and use information. Moreover, it is conspicuous that, the world's request presently from the society for employable and skilled learners has augmented theatrically. Schools and Colleges have to emphasis on skills improvement for learners and link training to the labour indicator (Tran & Swierczek, 2009). To achieve this, schools and colleges' training needs to offer more opportunities for learners to gain practical experience by exploiting a variety of authentic teaching, learning, and assessment strategies.

Attom (2017) postulated that the common existing assessment techniques do not assess the full range of critical educational outcomes which causes teachers to have difficulties in using learners’ assessment results to make informed decisions. She, therefore, recommended the use of authentic assessment because it offers a more complete way of assessing learners. Authentic assessment moves beyond rote learning and memorisation which is the core element of the traditional assessment approach (Attom, 2017). The discussion about assessment reform continues to include a discussion about authentic assessment. The question is, “why this development?” Finding a definition of authentic assessment in the literature revealed a more perplexing and challenging task because it produced a myriad of meanings (Gulikers, Bastiaens, & Kirschner, 2008). Authentic assessment is used interchangeably with genuineness, marginal assessment, performance assessment, portfolio assessment, as well as classroom-based assessment. Also, authentic assessment is the use of activities that resembles, as closely as possible, activities performed by adults in the real world. The activities would challenge learners to produce or execute at high standards and instruction with assessment impeccably incorporated to foster a mastery type of learning environment (Warman, 2002).

It appears that authentic assessment would include authenticity, alternative assessment, performance assessment, portfolio, authentic pedagogy, authentic learning, and classroom-based assessment, which includes assessment for learning (AfL), assessment as learning (AaL), and assessment of learning (AoL). Furthermore, Boud and Falchikov (2007) suggested that educators need to move from traditional (paper and pencil) assessment that focuses on specific standards and immediate outcomes to more sustainable assessment that can aid learners to become more active learners that are not only in managing their learning but also assessing themselves in life beyond the end of the course. They added that there has been a considerable critique of both the inadequacy of current assessment practices by classroom teachers and external examination. A foundation for the increased role of authentic assessment for classroom use is the belief that education is not simply a matter of memorization but must be informed by perilous thought and pragmatic awareness. In the light of this, Campbell (2000) asserted that authentic education has its basis on performance and reality. He further added that an assessment designed to measure knowledge that is deemed valid like authentic education can be termed “authentic”.

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Assessment in Ghana is dominated by traditional testing from the classroom to the national level. Kankam, et al., (2014) argued that there are not many formal authentic assessment training programmes for teachers in the Ghana educational context. They further asserted that an outcome-based approach requires that teachers test in authentic ways that are considered to be more imperative in terms of knowledge, skill, values, and attitudes. For instance, if critical thinking, problem-solving, positive attitudes and values, analytical skills, and civic competence are highly valued, and then learners should be able to validate mastery of these through meaningful activities which meet the demands and expectations of the society. Henceforth, there is the need to employ authentic assessment in our various classrooms which depends greatly on how teachers perceive authentic assessment (Kankam, et al., 2014). On the contrary, the real condition shows that some teachers are not familiar enough with some techniques in the authentic assessment such as self-peer assessment, project-based assessment, and portfolio (Chan, 2006; Oz, 2014). Subsequently, without sufficient and appropriate knowledge and skills, some glitches will almost undoubtedly appear among teachers who conduct an assessment.

The study was also motivated on its significant basis. The findings from the study would be helpful to several educational key stakeholders like Ghana Education Service, teachers, pupils, parents, future researchers if they regard to carry out the needful by kowtowing to the findings and recommendations. Findings from this study would inform Ghana Education Service to ensure the prudent and critical structure of the curriculum and assessment. Teachers would be abreast with techniques under authentic assessment to build quality learners. Parents would turn to receive their wards who are well-equipped with quality knowledge, comprehend and attitudes. The findings would serve as reference material to future researchers to fine-tune their research methodology and other key components.

**Problem Statement**
Wiggins and McCuthe (2007) suggested that traditional assessment has emphasised efficient tasks and tests that are perceived as demonstrating the learner’s educational abilities. It is believed that authentic assessment is becoming progressively prevalent, as perception and has grown to the extent that there is the need for more holistic approaches to evaluating learners. Anane and Asamoah-Gyimah (2019) asserted that the authentic assessment provides opportunities for learners to show what they can do as well as what they know; involves learners in the process of evaluation and integrates tasks involving multiple skills and knowledge of culture.

Another communal complaint about traditional assessments is that they show cultural biases which make them unfair for minority learners thus placing the assessment within a real-world context is seen as being a way around this problem (Fusco & Barton, 2001). Moreover, at the diverse school levels, the traditional assessment has often been criticized for focusing on the disconnectedness between the limited range of skills taught in the classroom and what the learner will face in the ‘real world’ (Prestidge & Williams-Glaser, 2000). Similarly, Poikela (2004) argues that in traditional assessment, reflective and social knowing skills are faintly assessed, and this can and should be addressed through the use of more authentic assessment. However, few studies have been conducted to explore and critically pinpoint the perceptions and practice of authentic assessment by teachers to assess learner learning outcomes. The study is therefore carried out because of the above backdrops.

**Purpose and Research Questions**
The study aimed at exploring teachers’ perceptions and practices of authentic (performance-based) assessment at the basic school level in Ghana. However, the study specifically answered the following questions:
1. What are teachers’ perceptions of authentic (performance-based) assessment at the basic school level?
2. Do teachers practise authentic (performance-based) assessments at the basic school level?

**Empirical Literature Review**

**Teachers’ Perceptions of Authentic (Performance-Based) Assessment**
Nasri, Roslan, Sekuan, Abu Bakar, and Puteh (2010) carried out a study that discusses teacher perceptions on using alternative (authentic) assessments. They posited that assessment is important to provide us a picture of curricular goals attainment and quality of our instruction and presently in Brunei, the government use large-scale assessment of academic achievement. The survey design was used for the study. The sample used for the study was 50 secondary teachers in Brunei with their perceptions collected using a 4-Likert scale questionnaire with $r = .72$ developed by the researcher. The result shows that teachers have positive perceptions of alternative assessments but they reported that the most significant impact of alternative assessments is the increase in paperwork and demands on their time.
Similarly, Kankam, Bordoh, Eshun, Bassaw, and Korang (2014) in a study sought to find out teachers’ perception of authentic assessment techniques practice in Social Studies lessons in Senior High Schools (SHSs) in Ghana. The study used a descriptive case study design. A sample of 20 teachers from 10 senior high schools was selected for the study. A semi-structured interview was the main instrument used for data collection. The results indicated that teachers perceived that the form of authentic assessment used in their classrooms was limited by policies, time, resources, and assessment methods employed by their schools.

Again, Sangia (2014) in a study aimed to expose the response from the language teachers in Ambon after having curriculum 2013 training. He cited that, the purpose of this authentic assessment is to measure a variety of skills in a variety of contexts that reflect real-world situations where those skills are used. The study used a qualitative approach and collected data with open interviews. The results show that teachers are grouped into two major opinions on authentic assessment; the optimistic (expectant) and the pessimistic (doubtful) teachers.

**Teachers’ Practices of Authentic (Performance-Based) Assessment**

Aliningsih and Sofwan (2015) conducted a study to find the English teachers’ perceptions and practices of authentic assessment in the pilot project schools of the 2013 curriculum in Grobogan regency. To achieve the objectives of the study, first, a survey was done. Then, to obtain more in-depth information about the teachers’ perceptions and practices of authentic assessment, a case study research was conducted. In this case, the researchers interviewed and carried out classroom observation. The data were analyzed through reading or memoing, describing, and classifying. The study revealed that there were no significant differences among the teachers in the way they applied authentic assessment. It was further revealed that teachers preferred written and task-based assessment, performance assessment, and also classroom observation in assessing their learners. Yet, the study revealed that teachers did not apply the authentic assessment properly as they did not put the assessment principles into practice.

Kinay and Bağçeci (2016) conducted a study drive to investigate the effect of authentic assessment, an approach used in Scientific Research Methods, on the problem-solving skills of prospective classroom teachers. The participant groups of the study consisted of sophomore prospective teachers who study at Dicle University in the ZiyaGökalp Education Faculty Classroom Teaching Department during the 2013-2014 academic spring terms. The two classrooms in the department were randomly assigned as experimental groups (Group B) and control groups (Group A). The experimental group was given authentic tasks and asked to do the group work. The authentic tasks fulfilled by prospective teachers were analyzed following the authentic assessment approach. Authentic assessment tools such as self-assessment, group assessment, portfolio assessment, teacher-peer assessment, weekly performance assessment, and learner journals were used in the experimental group. Meanwhile, control group activities were based on a subject-oriented curriculum design and teacher-centered traditional practices and assessments were carried out. Methods like verbal lectures, discussions, and question-answers were used. In addition, the evaluation process was conducted on the mid-term exam essay in a traditional sense. While the pre-test and post-test results of the experimental group indicate a statistically significant positive difference for the post-test, the difference between pre-and post-test results for the control groups was not found to be statistically significant. Simply, the study revealed how effective the practice of authentic assessment is in education.

**Methodology:**

**Research Design**

The researchers used the descriptive design. According to Fraenkel, Wallen, & Hynn (2012), descriptive research is concerned with the conditions or relationships that exist, such as determining the nature of prevailing conditions, practices, and attitudes; opinions that are held; processes that are going on; or trends that are developed. The descriptive method was used to identify and describe teachers’ perceptions and practices of authentic assessment. The design was considered suitable for the study as it involves gathering data from members of the population to determine its current status concerning one or more variables (Mugenda & Mugenda, 2012).

**Population and Sample**

A population of a study is the entire group of persons or set of objects and events the researcher is interested in gaining information and drawing conclusions about (Creswell, 2012). The target population for the study was all Ghanaian teachers from senior and high basic schools. However, the accessible population was all the basic schools’ teachers. Sample of 286 teachers which was determined by sample formula: \( n = \frac{N}{1 + N(\alpha)^2} \) where N-population, \( \alpha \)-estimated error of 5% by Miller and Brewer (2003), was purposively and accidentally chosen from the accessible
population of 1000 teachers. The sampling was carried out at a study centre which harboured basic school teachers from approximately 94% of the 16 regions of Ghana. This makes the sample appropriate for generalisation.

Instrumentation, Data Collection, and Data Processing and Analysis
A questionnaire was used for data collection. The instrument was made up of two sections (A and B) which elicit teachers’ perceptions and practices on authentic assessment respectively. The instrument was measured with a four-Likert scale: strongly agree, agree, disagree, and strongly disagree. The questionnaire was validated under expert judge and pre-tested to obtain Cronbach alpha \( r = .90 \). The instruments were administered to the respondents under the considerations of the research ethics: confidentiality and anonymity. The data were coded and keyed onto Statistical Package for Social Sciences Version 26.0 for processing. Data to answer research questions 1 and 2 were analysed using mean (M) and standard deviation (SD).

Results and Discussion:-
Amedahe (2008) avowed that the intention of editing the data is to detect errors as far as possible and to reduce errors in the data collected to the barest minimum. He further explained that editing involves correcting mistakes in the data where necessary, and deciding whether some of the data collected should be deleted or kept for data analysis later. For clear understanding, means (M) and standard deviations (SD) were also used to analyze research question 1. The analyses were done using four point-scales coded as SA =4, A =3, D =2, and SD =1, and the levels were shown using means (M) and standard deviations (SD). The analysis was done in line with 2.50 thus \( \frac{4+3+2+1}{4} = \frac{10}{4} = 2.50 \): this is applicable in both tables.

Research question 1: What are teachers’ perceptions of authentic (performance-based) assessment at the basic school level?
Table 1:- Teachers’ Perceptions on Authentic Assessment.

| SN | Statement                                                                                                                                                                                                 | M     | SD    |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 1  | Authentic assessment requires pupils to construct an original response rather than choose from a list of possible correct answers.                                                                       | 3.15  | 0.825 |
| 2  | Authentic assessment tasks foster higher-order thinking.                                                                                                                                                     | 3.19  | 0.758 |
| 3  | Authentic assessment assesses the process of creating the final product directly.                                                                                                                              | 2.91  | 0.805 |
| 4  | Authentic assessment requires a collaborative effort to solve problems.                                                                                                                                       | 3.23  | 0.784 |
| 5  | Authentic assessment requires pupils to learn to evaluate their work using predetermined criteria during an authentic assessment.                                                                            | 3.03  | 0.829 |
| 6  | The authentic assessment uses the pupil’s work which has been collected over time.                                                                                                                           | 2.84  | 0.918 |
| 7  | Authentic assessment allows for a particular task to yield multiple scores in different content domains.                                                                                                | 2.96  | 0.839 |
| 8  | Authentic assessment requires evaluation of changes in performance over time.                                                                                                                                    | 3.14  | 0.800 |
| 9  | Authentic assessment requires pupils to incorporate information from many areas.                                                                                                                              | 3.15  | 0.862 |
| 10 | The authentic assessment reflects pupils’ competencies in applying their knowledge and cognitive skills to solve substantive, meaningful tasks.                                                                | 3.34  | 0.782 |

Mean of Means/Standard deviation of standard deviations 3.09 0.820

In Table 1, it can be perceived that the majority of the respondents have positive perceptions about authentic (performance-based) assessment at the basic school level with (mean of means = 3.09, SD of SDs = .820). From the table, the majority of the respondents agree with the statement “Authentic assessment reflects pupils’ competencies in applying their knowledge and cognitive skills to solve substantive, meaningful tasks” with (mean = 3.34, SD = .782). Again, the majority of the respondents agree with the statement “Authentic assessment requires a collaborative effort to solve problems” with (mean = 3.23, SD = .784). Moreover, the majority of the respondents agree with the statement “Authentic assessment tasks foster higher-order thinking” with (mean = 3.19, SD = .758). Finally, the majority of the respondents agree with the statement “Authentic assessment uses pupil’s work which has been collected over time” with (mean = 2.84, SD = .918). It can therefore infer from the above analyses that, most teachers at the basic school level have positive perceptions about authentic assessment. The finding confirms the study’s finding of Nasri et al. (2010) which reveals that teachers have positive perceptions on alternative assessments but they reported that the most significant impact of alternative assessments is the increase in paperwork and demands on their time. Similarly, the finding agrees with finding from a study conducted by Sangia (2014) which revealed that, teachers are grouped into two major opinions on authentic assessment; the optimistic
(expectant) and the pessimistic (doubtful) teachers. However, it shows a sparing contradiction about the pessimistic (doubtful) teachers group as Sangia’s finding revealed it as a major opinion. In this study, it can be inferred that few teachers have pessimistic (doubtful) opinions about authentic assessment.

Research question 2: What are teachers’ practices of authentic (performance-based) assessment at the basic school level?

Table 2: Teachers’ Practices on Authentic Assessment.

| SN | Statement | M     | SD    |
|----|-----------|-------|-------|
| 1  | I guide pupils to effectively translate issues and situations into meaningful tasks that have a clear purpose. | 3.38  | 0.749 |
| 2  | I ask pupils to write simple sentences expressing a complete thought. | 3.28  | 0.729 |
| 3  | I ask pupils to create and organize ideas with a purpose. | 3.17  | 0.784 |
| 4  | I ask pupils to use symbols and words to show meaning. | 3.22  | 0.818 |
| 5  | I guide pupils to apply their knowledge to real-life problems. | 3.37  | 0.750 |
| 6  | I ask pupils to demonstrate their ability to organize ideas effectively. | 3.19  | 0.781 |
| 7  | I guide pupils to use hands-on tasks to conduct several investigations. | 3.06  | 0.766 |
| 8  | I assist pupils to add supportive details to stories. | 3.06  | 0.788 |
| 9  | I ask pupils to co-operate with peers and school personnel. | 3.24  | 0.794 |
| 10 | I ask pupils to reflect on their learning process to take control of their learning. | 3.31  | 0.798 |

In Table 2, it can be observed that the majority of the respondents practice authentic (performance-based) assessment at the basic school level with (mean of means = 3.23, SD of SDs = .776). From the table, the majority of the respondents agree to the statement “I guide pupils to effectively translate issues and situations into meaningful tasks that have a clear purpose” with (mean = 3.38, SD = .749). Again, the majority of respondents agree with the statement “I ask pupils to write simple sentences expressing a complete thought.” with (mean = 3.28, SD = .729). Likewise, the majority of the respondents agree with the statement “I ask pupils to demonstrate their ability to organize ideas effectively.” with (mean = 3.17, SD = .784). Similarly, the majority of respondents agree with the statement “I guide pupils to use symbols and words to show meaning.” with (mean = 3.22, SD = .818). Finally, the majority of the respondents agree with the statement “I guide pupils to apply their knowledge to real-life problems.” with (mean = 3.37, SD = .750). Likewise, the majority of respondents agree with the statement “I ask pupils to reflect on their learning process to take control of their learning.” with (mean = 3.31, SD = .798).

Conclusions and Recommendations:

In conclusion, the study revealed generally that the majority of basic school teachers have a positive perception of authentic assessment. This is evident that, most basic school teachers perceived authentic assessment to reflect pupils’ competencies in applying their knowledge and cognitive skills to solve substantive, meaningful tasks; to require a collaborative effort to solve problems; to foster higher-order thinking and several other construct-oriented tasks. Moreover, the study concludes that basic school teachers practice authentic assessment. The study revealed that the majority of the basic school teachers guide pupils to effectively translate issues and situations into meaningful tasks that have a clear purpose; apply their knowledge to real-life problems, and reflect on their learning process to take control of their learning. The researchers, therefore, recommend based on the findings that, the education agencies and heads of schools should periodically organise in-service training, workshops, and seminars to equip teachers with contemporary issues on an authentic assessment like computer-assisted programs which will intend to foster their comprehension of authentic assessment concept. Finally, the government should liaise with other stakeholders to make available adequate funds and instructional time for teachers to facilitate the smooth practice of authentic assessment in schools. The adequate funds would enable the teachers to secure logistics and also to undertake some projects and activities to improve students understanding of concepts. The adequate instructional time on the school timetable on the other hand would make teachers feel comfortable and composed to practise authentic assessment.
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