

A Multiple Case Study of Teacher-Trainees Practice of Formative Assessment Classroom Techniques and Strategies (FACTS)

Isaac Eshun^{1*}

¹ Department of Social Studies Education, University of Education, Winneba, Ghana

Email Address

isaaceshun@uew.edu.gh (Isaac Eshun)

*Correspondence: isaaceshun@uew.edu.gh

Received: 12 December 2022; Accepted: 12 April 2023; Published: 24 June 2023

Abstract:

The purpose of this study was to examine formative assessment techniques teacher-trainees use to assess pupils' learning in the classroom. Qualitatively, the study adopted literal replication multiple case study research design. The study was carried out in three Colleges of Education (Enchi, Wiawso and Bia-lamplighter) in the Western North Region of Ghana. Purposive and convenience sampling techniques were employed to select the three (3) Colleges of Education and thirty (30) participants for the study. The instruments employed for the data collection were semi-structured interview guide and observation checklist. The data were used together to form one case and analysed by the use of the interpretative method based on the themes arrived at in the data collection. The study revealed that, teacher-trainees have a fair idea on how to use formative assessment classroom techniques in teaching and learning process, although the classroom observation proved otherwise as most of the techniques, they mentioned in the interview were not used in the classroom situation. Role-play, interview, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization were not used by the teacher-trainees. The study also concluded that, formative assessment technique has a stake in teaching and learning of Social Studies as it provides the means of objective measurement of a wide range of behaviours as they occur naturally in the classroom environment. It is recommended that, formative assessment classroom techniques like role-play, interview, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization should be used in addition to brainstorming, discussion, observation, demonstration, debate, storytelling, questions and answers in teaching and learning.

Keywords:

Assessment Techniques, Classroom Assessment, Formative Assessment, Teaching Techniques, Teacher-Trainees, Techniques and Strategies

1. Introduction

The ability to use various techniques and methods for instruction is often neglected by educators. Teachers tend to have students participate in activities that do not encourage critical thinking, but instead encourage rote memorization of names, dates,

and places [1]. The common preoccupation with having students commit one fact after another to memory based on history textbook recitations and lectures does little to build capacity to think historically [1]. In addition, teachers need to connect the content to the individual interests of the students, thus increasing student interest in the content and actively engaging students in the learning process [2]. This entails utilizing a variety of teaching techniques that help engage students in the learning process. Some examples of engaging instructional methods include cooperative learning, role playing, and technology application [3]. Cooperative learning requires students to become active learners [4]. Cooperative learning provides opportunities for students to learn, practice, and live the attitudes and behaviours that reflect the goals of Social Studies education [4]. The use of various techniques in Social Studies inspire teachers to become more reflective about their instructional approach and allow them to adapt their teaching style to meet the interest and needs of the students [5]. There is also the need for a quality assurance mechanism to be instituted in the teaching profession to ensure that teacher preparation programmes in the country are designed to focus on the needs of society. The classroom practices of teachers, so far as Social Studies is concerned, must be centred on the current knowledge and understanding of what the subject is; issues centred and problem solving [5].

Notably, making good use of formative assessment strategies in assessing students helps them to examine their strength and weakness and this results in improving teaching practice. Students understand lessons better when they are brought on board during the teaching and learning process [7,8]. From an innovation point of view, active teaching techniques change the pace of the classroom, and are a creative way to increase students' involvement, motivation, excitement, attention, and perceived helpfulness and applicability of the class [9,10]. Thus, when feedback enables teachers to tailor their teaching accordingly and points to the way for students to improve their performance, it becomes a teaching and learning tool. It is only when feedback performs teaching/learning functions that it can be termed effective [11,12].

Formative Assessment Classroom Techniques and Strategies (FACTS) are seen as very integral part of teaching and learning; clarifying and sharing learning intentions and criteria for success, and engineer effective classroom discussions and learning tasks. For effective implementation of formative assessment certain techniques / strategies need to be followed and understood by both the teacher educators and their students [13]. Assessment techniques should be made to provide students with valuable educational experience and the capability in motivating them to perform in classroom activities [9,14]. Techniques selected should aid students in understanding subject knowledge and establishing linkages between knowledge and application in everyday teaching and learning (learning [14,15]. Basically, research has revealed that teaching Social Studies should be stressed in student-centred techniques and strategies [16]. The authors further stressed that, brainstorming, role-playing, simulation, discussion and debate were the major techniques stressed by both Colleges of Education curriculum and the Junior High School (JHS) Social Studies syllabus in Ghana [16]. This makes it prudent for the Social Studies teacher to be familiar with the major objectives in the subject area in order to formulate objectives in all the domains of learning following the different classifications by Bloom in 1956, and Taba in 1962. This makes information to become more meaningful to them; therefore, they retain it for longer periods of time.

It is believed that, formative assessment can affect students' retention and emphasizes its role in academic integration [19]. Formative assessment enhances the

efficacy of instructional strategies of Social Studies tutors [13]. The function of formative assessment as a means to improve learning during instruction clearly comes through, as does the idea that not only teachers but also students are active users of formative assessment. formative assessment is a process that takes place continuously during the course of teaching and learning to provide teachers and students with feedback to close the gap between current learning and desired goals [20]. This implies that effective feedback is the one that closed the gap between the intended and actual outcome of a lesson to assist in revision purposes; assess learners' understanding level; and to evaluate concepts taught in class to diagnose learners' strengths and weaknesses acting as a benchmark to prepare for the next lesson [11]. From this point, if the teacher trainees were taught all the ideal formative assessment techniques in the Social Studies instructions, then they should form better conception of the subject and the nature of its assessment during teaching practice. Although many efforts have been made by Colleges of Education tutors to improve on the assessment of the subject Social Studies during teaching and learning, it is believed that the goals of the subject are not being achieved, hence the research on teacher trainees' use of formative assessment classroom techniques in Social Studies instructions in Ghana. The identified gap can never be effectively closed if teachers do not choose appropriate formative assessment techniques or practices during teaching and learning activities in the classroom. The purpose of this study was to examine the formative assessment classroom techniques teacher-trainees use to assess pupils' learning. The study sought to answer the research question - What formative assessment techniques / strategies do teacher trainees use to assess pupils' learning in the classroom?

1.1. Theory of Formative Assessment and Feedback

The theoretical framework for this study was guided by Sadler's Theory of Formative Assessment and Feedback, both in the data collection method used, and the analysis of data [21]. The researcher's selection of Sadler's theoretical framework is based on the connection between the theory and research evidence on teaching and learning practice. The nature of feedback had previously been studied in the context of measurement and grades; Sadler's theorisation re-defined several significant factors in focusing formative assessment and feedback on classroom practice [8, 21]. Sadler's theory frames three conditions for effective feedback, in particular drawing attention to the student's involvement in the assessment and feedback process. Sadler argues that, assessment should focus on "who makes the judgements, how they are made, how they may be refined, and how they may be put to use in bringing about improvement" [21].

Sadler's theoretical exposition of formative assessment places feedback as a key element for successful performance by students. His argument is that feedback is not just information provided by teachers, but has effect on students in improving their learning, and in monitoring the strengths and weaknesses of their performance. Traditionally, the teacher must possess a concept of quality appropriate to the task, and make judgements based on student performance in relation to that concept. Sadler, however, argues that for students to improve, the student themselves must hold a concept of quality similar to that held by the teacher; they should be able to themselves monitor the quality of their work, and have a range of strategies at their disposal to engage in closing the gap. As Sadler writes, to enable self-monitoring to take place, teachers should share "guild knowledge" and teachers' judgement of the

quality of performance to task should be accessible to students, so that they can understand the quality that is required in their performance.

Furthermore, teachers should use multiple criteria to fairly assess student performance, making qualitative judgements. Sadler's theoretical detailed clarification of formative assessment emphasises the need of communicating standards and strategies as the significant aspect of effective feedback process [21]. He argued that the key notion of formative assessment and feedback is that the three conditions should be satisfied and enables students to become self-monitoring. Rather than three conditions working as separate entities, they should be satisfied simultaneously during the act of learning. Teachers should also assess the quality of responses with an independent method of confirming their judgement before the marks or scores are assigned. Sadler provides three conditions that significant for effective feedback.

The first condition, communicating standards with students: Communicating required standards to students helps them to understand the reasons or purposes to their attaining the target goals, and helps improve performance [22]. Transition from feedback to self-monitoring can occur when teachers share this knowledge with students so students know what constitutes a high-quality completion of the task. This presumes that teachers possess the knowledge required to identify the quality they are looking for. In practice, teachers' conception of quality is frequently held as tacit knowledge and often unarticulated. Teachers' experiences of making qualitative judgements, in exchanging students' work with other teachers, and collaboration in making rigorous judgements creates a form of guild knowledge. Student-exclusive guild knowledge is unsuitable to the process of formative feedback, as it emphasises ranking and comparison that are irrelevant in formative assessment. Besides, one of the most significant requirements of formative assessment is that students are aware of the standards set out for them, which suggests that specifying the standards through descriptive statements and exemplars provide an efficient means of externalising a reference level [21]. Thus, a study argues that for learning and improvement to take place, students should be able to self-monitor their performance through knowledge of expected quality [21]. Therefore, Sadler advocates that, teachers must make their 'guild knowledge' accessible to students so that over time "students will hold a concept of knowledge" similar to their teachers [21]. Learners having knowledge of expected quality is significant to the improvement process of their learning. With such knowledge, students will become less dependent on teachers and become self-monitoring of quality in their work, a key condition if improvement is to be made. Sadler's definition of a standard or reference level is "a designated degree of performance or excellence becomes a goal when it is desired, aimed for, or aspired to." Teachers assign external goals, teachers, or goals developed and adapted by their students, are significant in regulation of students' performance when students take ownership of a goal by setting, internalising and adopting it.

The second condition, making multi-criterion judgements: Sadler argues constantly that students become self-monitoring. Sadler further argues that teachers should not merely provide students feedback in the form of information; rather students should play an active role in the feedback process [21]. Significant to Sadler's theory are students becoming active participants in their learning and assessment. Discarding the concept of learners as consumers of feedback information, he argues that learners should be able to produce feedback information themselves. Therefore, students need to develop capacity to make judgements on the quality of their work based on multiple criteria during the actual production of their work. Students should be able to

compare their actual level of performance against the appropriate standards, making multi-criterion judgements of their work with objectivity and detachment. This provides opportunities for students to compare their actual level of performance with the expected standard. This can be realised when effective formative assessment classroom techniques and strategies are formulated in applied in teaching and learning. Appropriate use of assessment techniques and strategies will provide the teacher-trainees the support they need to become independent of teachers.

The third condition, strategies for closing the gap: The third condition necessary to enabling self-monitoring is for students to be able to select the appropriate strategies to bring their performance closer to the goal [21]. Even so, peer and self-assessment do not automatically create the expertise to produce or improve learning. Therefore, it is critical for students to become self-monitoring. Sadler rejects the traditional understanding of formative assessment, where teachers are placed as the expert and students as the passive recipient in the assessment process [21]. He argues that learners should have evaluative knowledge and expertise so that they are able to evaluate the quality of the work produced in regards to the expected standards. Teachers therefore should facilitate learning autonomy and enable students to reflect on and make decisions about what actions affect their learning and lead to improvement. This can be properly realised by employing child centred assessment techniques in the teaching and learning process.

1.1.1. Application of the Theory

Sadler therefore maintains that students need to engage in action that will lead to them closing the gap between their current and desired performance [21]. Most importantly, he argues, this has to take place during learning and the production of work. Figure 1 highlights the key concepts of Sadler's theorisation of formative assessment and feedback that enhances learning [21]. As he argues, teachers hold a significant role in the process of interpreting the learner's current performance and their desired performance, and in identifying the gaps that exist in their knowledge and proficiency. Teachers then select tasks or work suitable for their students and share the 'guild knowledge' of what quality they are looking for with their students, so that students are able to self-monitor their progress. This concept and knowledge of quality is then shared with the students and transferred through peer and self-assessment strategies within formative assessment to enable to students to gain evaluative and productive skills and expertise.

The adoption of Sadler's theory, the reporting of findings that support his assertions, and the explanations and verification of the research and the study grounding the theory into classroom practices offer evidence of trustworthiness of the theory [23]. Sadler's work has shaped and redefined teacher and student roles in the formative assessment and feedback process in practice [21]. Influential scholars in the field of assessment respect Sadler's theoretical exposition of formative assessment and feedback. An educational consultant from the United Kingdom, developed practical formative assessment strategies for teachers to employ in the classroom on this basis [24]. The researcher utilised Sadler's concept of communicating standards by developing strategies, such as sharing learning intentions with students, and introduced the idea of success criteria being made explicit to students [24, 25]. Researchers undertook an empirical project to identify formative assessment practices in the infant classroom [25]. They developed a conceptual framework, identifying convergent and divergent formative assessment, constructing the findings utilising

Sadler's theoretical concepts and proposed classroom practices. Their conceptual framework illustrates the potential of formative assessment to enhance learning [25].

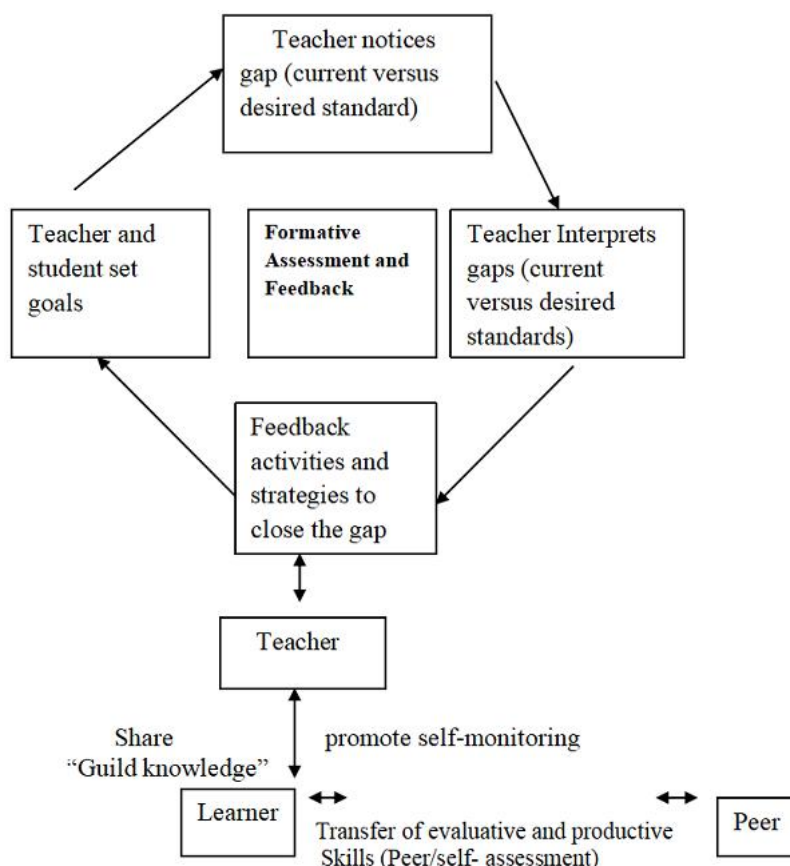


Figure 1. Formative assessment and feedback strategies.

Therefore, it is reasonable to assume that some concepts from Sadler's theory would present in teacher's reported beliefs and teaching strategies. Sadler's theoretical framework is the most suitable theory to be intertwined with the data I have sought out, and the most likely to provide a comprehensive analysis, specifically on teacher's beliefs regarding formative assessment and feedback, teacher and student roles in the classroom, and feedback strategies in supporting students to identify gaps in their performance and to work towards closing the gaps [21]. As my interest was on teacher-trainees' formative assessment classroom techniques / strategies, it was my research interest to explore what influenced their classroom practice of bringing pupils into the assessment process. This, in my candid view can be achieved properly through the use of Formative Assessment Classroom Techniques and Strategies (FACTS). For this reason, I have found it useful to adapt the Sadler's theoretical framework of formative assessment and effective feedback to analyse teacher-trainees' practice on FACTS. On this premise, appropriate student-centred FACTS will help to realise effective teaching and desired learning outcomes. Unwavering uptake of learning criteria is very imperative in achieving effective FACTS.

1.2. Formative Assessment Techniques Teachers use to Assess Students' learning in the Classroom

The inculcation of the right attitude, values and skills in learners, depends on the selection of content, teaching and assessment techniques, which the ideal Social Studies teacher must be competent enough to possess and use effectively in other to

obtain accurate feedback [26]. It is therefore incumbent on teachers to possess the following assessment techniques when preparing for classroom activities: role-play; simulation, discussion; brainstorming; debate; direct observation; peer-assessment; self-assessment; performance-based-assessment; problem solving; portfolio and questioning [16].

1.2.1. Role play

Role-play and gaming activities have been highlighted as fora which provide development of a range of personal and social skill sets in students, as well as understanding of subject content [27]. Students perceive role-playing as one of the most important techniques for learning communication skills, after discussion. Role-playing scores the highest for the most enjoyable learning environment and since learning is improved if a student is motivated and engaged this is important to their learning outcomes [28]. Within this context, a role-play intervention was used to help promote the development of students' teamwork skills. Role-play may be situated in authentic settings where students are allowed the opportunity to acquire the intended learning outcomes by making mistakes in safe environments [29].

Researchers concluded that the move from traditional lectures, seminars, tutorials, paper-based exams, essay writing and reliance on printed books and articles, to role-playing significantly transformed the learning and teaching processes [30, 31]. Students played an active rather than passive role and emphasis was transferred from individual activities to communication and collaboration, which allowed flexibility in the delivery of material in terms of the number of participants, the timing and spatial location of the teaching and learning process and also how participants were taught new skills and competences. Using role-play intervention helps students to recognize the importance of teamwork skills, whilst immersed in an authentic learning environment which provides immediate learning feedback to students [28, 24]. Role play technique is a student-centred content delivery and skills development process [33]. Role play creates a stimulating environment that simulates reality, enabling students to intensify their understanding of the situation or event being re-enacted. Students gain a deeper insight into enacting issues discussed in the classroom which helps in their thinking about the complexity of human motivations in past events [32].

However, when it applied in Social Studies, the principle behind role-playing is that the student assumes a particular personality of a different person, such as a nurse, a patient, a caregiver, or another health care provider during teaching and learning provides immediate feedback to the learner. In most situations, role-play is used as a teaching strategy in which students use their background knowledge in addition to attaining new information about the character to play the assigned role in a better way [33]. This really indicates that it can be used by teachers to teach various concepts in Social Studies that can right the wrong in the society. It will also assist students to simulate the real life situation in the community and the world at large.

1.2.2. Simulation

Role play simulation is more required in classroom teaching and learning which aimed at developing public speaking skills. In the classroom situation, simulation should be designed to suite the lesson objectives. Simulation based training techniques, tools, and strategies can be applied in designing structured learning experiences, measurement tool that linked to the targeted teamwork competences and learning objectives to put students in the classroom to learn on their own or to

lecturing them about the classroom and as the major tool for assessment of performance [34,35].

Simulation-based training is just one training approach that particularly focuses on providing trainees with the opportunities to develop and practice the required competences and receive feedback [36]. The use of simulation allows students to engage beyond the traditional classroom lectures to a more active learning method where students are responsible for making decisions. This active participation by students results in increased retention of knowledge and decision making skills [37]. It has been shown that actively engaging students in real time scenarios affords a much richer learning experience [37, 38]. Simulation is a form of authentic assessment [39]. When exposed to active, experiential, reflective and contextual learning approaches such as simulated environments, students can see the direct relevance of their educational experience to their future practice. The principal disadvantages of using simulation is that the teacher must sacrifice a degree of substantive coverage in return for a degree level of student understanding on what might be narrower of topics [40]. The relevance of simulation can be seen by students in Social Studies classroom when teachers guide students to have open discussion on simulated topic to receive feedback.

1.2.3. Discussion

Discussion is one of the most widely used and valuable method in the teaching of Social Studies. Discussion method of teaching engages both teachers and students in thinking and develops in students' social skills of talking and listening. This provides a platform for both learners and teachers to receive supportive feedback during teaching and learning as discussing a concept in the classroom situation [41]. Discussion involve students in class activities and promotes their desire to learn the subject [41]. Discussion is a teaching technique a teacher uses to help learners gain the knowledge which they need to achieve a desired outcome [42]. Therefore, a teaching method is all that a teacher plans to make the learners understand the concepts to be taught. But if it is properly organized in the Social Studies classroom it led to brainstorming among students during teaching and learning.

1.2.4. Brainstorming

Brainstorming is an intense experience that is strongly focused on a single topic for a limited period of time. It provides a very different and stimulating student interaction of time [43]. It provides a very different and stimulating student interaction procedure - the kind of variety that most groups enjoy immensely. Finally, the unleashed and concentrated mental power generated in a brainstorming session guarantees both individual and group achievement. Assessment and evaluation considerations can be done by observing students' ability to focus on a topic or task in a group situation; noting students' participation in the oral expression of ideas; monitoring listening behaviours. (Do students take turns speaking? Do they ask for clarifications?); and periodically record students' oral language strengths, weaknesses and development in their files [44]. The brainstorming technique in the classroom prepares students to involve themselves in the classroom debate.

1.2.5. Debate

Debate refers to the process of considering multiple viewpoints and arriving at a judgment, and its application ranges from an individual using debate to make a

decision in his or her own mind to an individual or group using debate to convince others to agree with them [44]. However, the immediate feedback from classroom debate promotes active engagement and mastery of the content. Debates stimulate critical thinking and can be a highly effective way to actively engage students in the classroom [45, 46]. The use of debate provides students with an opportunity to develop critical thinking skills [47]. The thinking starts with the preparation with students. Through reading and research the students extract pertinent information and analyse which ideas support their assigned position. The ideas are then synthesized into formidable arguments. For effectiveness during the debate, the ideas must be pertinent and succinct. Debates in the classroom have been effective in increasing critical thinking by letting students to connect as they learn subject knowledge [48]. This helps students to master the content in the class and process what is useful in gaining disciplinary knowledge, analysing and presenting arguments. The classroom debates will also help learners to recognize and deal with various points of view and improved their critical thinking in other to right the wrong in the community. And also develops the communication skills of students. During classroom debate, it is the responsibility of the teacher to observe the attitude of students.

1.2.6. Direct observation

Direct observation assessment is exactly as the name suggested - the assessors observe the students performing the assessment and see if they have the ability to perform it properly [49]. Group work such as problem based learning may sometimes use direct observation to judge a student's input. Observation assessment is only effective when it follows a systematic plan to help both the assessor and the student focus on what needed to be observed and recorded. An oral assessment is often used as a follow-up assessment to supplement any question. Sometimes there is no effective alternative to direct observation [49]. Teacher observation can be characterized as two types: *incidental and planned*. Incidental observation occurs during the on-going (deliberate) activities of teaching and learning and the interactions between teacher and students [49, 50]. In other words, an unplanned opportunity emerges, in the context of classroom activities, where the teacher observes some aspect of individual student learning. Whether incidental observation can be used as a basis for formal assessment and reporting may depend on the records that are kept. Planned observation involves deliberate planning of an opportunity for the teacher to observe specific learning outcomes [49,50]. This planned opportunity may occur in the context of regular classroom activities or may occur through the setting of an assessment task such as a practical or performance activity [50]. This clearly shows that direct observation as formative assessment technique has a stake in teaching and learning of Social Studies. The indication here is that direct observation in the Social Studies lessons helps the assessor to know if learners are working towards the desired learning goals and the success criteria shared with them. And learners are encouraged to peer assess themselves or share and receive feedback among themselves.

1.2.7. Peer assessment

Peer assessment is simply the appraisal of learner's work by fellow learners [51]. This requires each student to produce a critical analysis of someone else's work and to receive critical appraisals of their own work. This is a great way to receive dollops of feedback, provided personal animus is not involved in those evaluations. Like peer

tutoring, peer assessment seems to develop a range of abilities. In order to be effective within a classroom environment, peers have to develop the ability to work cooperatively and not make personal attacks. Seeking constructive, critical feedback from one's friends and peers is a good way to develop the quality of a learning environment; students may be more honest and informative than teachers, who may be concerned for student mental or emotional welfare. A study on Secondary students indicated that they associated peer assessment with improved class atmosphere and relations [52]. Once the peers have considered the extent to which the criteria have been met or not met, they can provide constructive feedback about how their classmate could improve his or her speech [10].

1.2.8. Self-assessment

Self-assessment is a valuable tool for formative purpose and this can be boosted by peer assessment as it is believed to enable learners to assess one another for formative purposes [26]. All the work in self-assessment focuses on involving students in the process of identifying standards and/or criteria to apply to their work. In other words – teachers must teach students how to recognize important dimensions of learning and the features of progress. Students need to know what is in the objective and what the standards are for assigning levels or grades. The goal of teaching self-assessment is to get students to the stage where they can make judgments about the extent to which they themselves have met the criteria and standards. So, doing self-assessment does not remove responsibility for teaching from the teacher. Indeed, it requires content-knowledgeable teachers. So why should students and teachers bother themselves with the effort to teach/learn or practice self-assessment? Self-assessment requires that students focus on learning goals or intentions and become active participants in monitoring whether and how they are reaching those goals. In this manner, students develop the habits and skills of meta-cognition, which is the process of managing and controlling one's own learning. Self-assessment allows students to take responsibility for the direction and management of their own learning, to become self-regulating to ensure performance in the classroom [53].

1.2.9. Performance-based-assessments

Performance-based assessments (PBAs), represent a set of strategies for the application of knowledge, skills, and work habits through the performance of tasks that are meaningful and engaging to students [54]. PBAs are used in a variety of contexts, including summative, high-stakes contexts, such as certification and licensure, as well as employment and educational selection. PBAs are also used for formative or instructional purposes [54]. When well-designed PBAs are administered and scored in the classroom, they can provide valuable information for evaluating and improving instruction when tasks have high fidelity to important criterion performances and when they are designed to align with instruction [55, 56]. This type of assessment provides teachers with information about how a child understands and applies knowledge. Also, teachers can integrate performance-based assessments into the instructional process to provide additional learning experiences for students [57]. PBAs make assessment less amenable to organic adjustment by the teacher to support the learning and motivation of students with different needs [58]. However, some teachers are hesitant to implement them in their classroom. Commonly, this is because these teachers feel they don't know how to assess student's performance in using performance-based assessment may be previous experiences with them when the

execution was unsuccessful or the results were inconclusive [59]. These assist learners to compile series of work done in class into a single document or file as portfolio.

1.2.10. Portfolio

Portfolio assessment is an ongoing process involving the student and the teacher in selecting samples of students' work for inclusion in a collection, the main purpose of which is to show the student's progress. The use of this procedure is increasing in the language field, particularly with respect to the writing skill. It makes intuitive sense to involve students in decisions about which pieces of their work to assess and to assure that feedback is provided. Both teacher and peer reviews are important [60,61]. Portfolio is beneficial to the improvement of vocabulary and grammar knowledge, reading, research, and writing skills [52]. Portfolio involves accumulations of students' works rather than single writings, they allow the student to show and develop different skills, they enable the student to participate in selecting the topics, discussing and reflecting about content, and evaluating their own and peers' works; in addition, the student can see their own progress during teaching and learning of content, which enables students' interaction, decision making, and reflective thinking [63]. Portfolios are versatile teaching and learning tools that can serve diverse purposes. Moreover, portfolios could help students become aware of their strengths and weaknesses [64]. This posits that the usage of portfolio helps students to question about their performance in class and the right career to pick in future.

1.2.11. Questioning

Basically, interactive formative assessments promote learning outcomes through questioning in a form of dialogue [13]. Questioning is an important part of classroom interaction as a way of giving teachers a means of identifying gaps in their learners' understandings, and of arousing interest and motivating learners to participate in class discussions [65]. A research on formative assessment techniques tutors use to assess teacher-trainees' learning in Social Studies in colleges of education in Ghana, the researchers observed in a classroom setting that tutors asked questions in open discussion; use questions and answers to introduce their lesson; and students were called to summarize what they learnt after the lesson [9]. This implies that usage of questioning plays a pivotal role in the classroom. Effective questioning goes hand in hand with the learners' responses to questions and the teachers' response to learners answers [66, 67]. Teachers' responses to learners' answers can be done at any point in time in the lesson by acknowledging learners' responses, reinforcing answers, inviting learners to react, building on learners' responses, and avoiding responses that affect learners negatively [66]. The effective usage of these techniques by teachers during teaching and learning helps them to provide immediate feedback to learners.

2. Materials and Methods

Qualitatively, the study adopted multiple case study research design. A researcher proposes that the usage of around 6-10 cases arranged effectively by selecting 2-3 cases for literal replication and 4-6 cases for theoretical replication [68]. Literal replication type of multiple case study was suitable for this study due to the homogeneous nature of the population and curriculum of the Colleges of Education in Ghana. The study was carried out in three Colleges of Education (Enchi, Wiawso and Bia-lamplighter) in the Western North Region of Ghana. Purposive and convenience sampling techniques were used to select the Colleges of Education and participants

for the study. Purposive sampling technique was employed to select the three colleges out of the forty-six (46) colleges of education in Ghana because they were having characteristics that fall within the criteria for selection. Convenience sampling technique was used to select the participants (the final year teacher-trainees) offering the subject (Social Studies) from the three colleges of education in the region. Thirty (30) teacher-trainees were conveniently selected for the study. There was no contradiction of findings from the conveniently selected thirty teacher-trainees or participants from each of the three colleges in the Western North Region, due to the usage of homogeneous curriculum by the colleges and the data analysed as one single case (multiple case study). The main instruments used for data collection were semi-structured interview guide and observation checklist. The data were analysed by the use of the interpretative method based on the themes arrived at in the data collection. The themes were related to the research question and interpreted on the number of issues raised by participants. These were based on the questions on the semi-structured interviews and classroom observation protocols.

3. Findings and Discussion

The main focus of this section was to establish the formative assessment classroom techniques / strategies final year teacher-trainees use to assess pupils' learning in the basic schools during their internship programme. The study was guided by this research question - *What formative assessment techniques / strategies do teacher trainees' use to assess students' learning in the classroom?* Teacher-trainees were interviewed to elicit their views on the issue of formative assessment techniques / strategies. Research question was discussed under four sub-themes: 1. Formative assessment classroom techniques / strategies; 2. The use of formative assessment techniques in teaching; 3. Ways of using formative assessment classroom techniques; 4. Reasons for using formative assessment classroom techniques. To check for consistency and deviation, the interview outcomes were triangulated with classroom formative activities observed during teaching. The purpose of the classroom observation protocol used was to observe and identify the formative assessment classroom techniques / strategies and elements that are used by the Social Studies final year teacher-trainees on teaching practice during teaching and learning in their lessons. Evidence jotted down were to aid gather evidence of teacher-trainees' use of assessment techniques and strategies for formative purposes in the quest of bridging theory and practice around formative assessment implementation.

3.1. Formative assessment classroom techniques / strategies

Formative assessment classroom techniques / strategies used by teacher trainees in Colleges of Education are discussed here. Teacher trainees were interviewed to elicit their views on the issue. Those interviewed were also observed in a classroom setting while they teach a junior high school class. The main question used for this section was *can you mention some of the formative assessment classroom techniques / strategies that you know of?* The responses the trainees gave were - brainstorming, discussion, observation, interview, role play, case study, demonstration, group work, jigsaw, fish bowl, Project work, quizzes, field trip, debate, storytelling, dramatization, questions and answers.

To check for consistency of outcome, trainees interviewed were also observed in a classroom situation to ascertain whether what they said during the interview were

indeed their classroom practices. The outcome of the classroom observation shows that trainees were frequently using techniques like brainstorming, discussion, observation, demonstration, debate, storytelling, questions and answers in their teaching. On the other hand, formative assessment techniques that they mentioned during the interview but were not using in the classroom during teaching and learning were interview, role play, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization. Teaching Social Studies should be stressed in student-centred techniques and strategies [16].” The authors, further stressed that, brainstorming, role-playing, simulation, discussion and debate were the major techniques stressed by both Colleges of Education curriculum and the Junior High School (JHS) Social Studies syllabus in Ghana. This makes it prudent for the Social Studies teacher to be familiar with the major objectives in the subject area in order to formulate objectives in all the domains of learning following the different classifications [18, 19]. This makes information to become more meaningful to them; therefore, they retain it for longer periods of time. Social Studies content should be in-depth with lessons and activities [69]. The type of lessons an educator teaches is based on the conception of the subject and the philosophy of teaching and learning. Each teacher should possess philosophy which “provides guidance and direction in choosing objectives, learning activities, and assessment procedures [70].

This section can be concluded that many of the ideal formative classroom assessment techniques teacher trainees said they have been using in their teaching were not seen during the classroom situation. The outcome of the classroom observation shows that trainees were frequently using techniques like brainstorming, discussion, observation, demonstration, debate, storytelling, questions and answers in their teaching. On the other hand, formative assessment techniques that they mentioned during the interview but were not using in the classroom during teaching and learning are role-play, interview, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization.

3.2. The use of formative assessment classroom techniques / strategies in teaching

The use of formative assessment classroom techniques / strategies in teaching by teacher-trainees in Colleges of Education is discussed here. Teacher trainees were interviewed to elicit their views on the issue. This question was asked - *Do you use any of the formative techniques in your teaching?* Those interviewed were also observed in classroom setting while they teach a Junior High School class. All of them said yes to the assertion but the classroom observation proved otherwise as most of the techniques they mentioned in the interview were not used in the classroom situation.

The trainees were also observed on how to share Social Studies learning goals and success criteria with learners. The learning goals were hinged on three things - how to explain, discuss and examine concepts. With how to explain concepts, majority of the trainees were observed on Social Studies learning goals and sharing success criteria and how they achieved it through questions and answers. On how to discuss concepts as Social Studies learning goal, majority of the trainees were seen using discussion technique as an ideal way in sharing success criteria with learners, whilst brainstorming was seen as the success criteria on how concepts should be examined. Concluding this section, it could be realized that trainees have a fair idea on how to use formative assessment techniques in teaching and learning process.

3.3. Ways of using formative assessment classroom techniques / strategies

Ways using formative assessment classroom techniques / strategies in teaching by teacher trainees in the Colleges of Education is discussed here. Teacher trainees were interviewed to elicit their views on the issue. Those interviewed were also observed in the classroom while they teach a junior high school class. The main question used in this section was - *How do you use formative assessment techniques?* In all, sixty trainees were interviewed for their views on the issue. The summary of the sixty participants are presented here.

They said the following “it can be used at all the levels in the lesson delivery - from the beginning of the lesson to the end of it...used in the introductory stage to review pupils’ relevant previous knowledge on the topic; in the activity stage for easy presentation and systematic delivery of the lesson; and the evaluation stage to assess the lesson through oral and written questions.... Formative assessment classroom techniques should not be done in mundane manner - using the same technique every day. Social Studies is not a blind subject for teachers to use only one technique in its delivery.... Using varied formative assessment techniques in the lesson delivery encourage learners to take part in the lesson activities thereby enhancing their understanding of the concept taught.”

Trainees were observed to ascertain whether what they said were really replicated in class by using evidence of learning by learners based on trainees’ lesson initiation; lesson development; and lesson culmination. These were used to determine the success criteria for the lesson. It was observed that questions and answers, demonstration, brainstorming, and role play techniques were used in the lesson initiation. Questions and answers, brainstorming, discussion, role play, demonstration, grouping of students were used in developing their lessons. In lesson culmination, trainees were observed doing the following: guiding learners to summarize what they have learnt; using questions and answers to culminate in the lesson (oral questions); and summarizing the entire lesson taught by themselves. Eliciting evidence on the use of formative assessment strategies, most of all the participants used “wait time” when both oral and written questions are asked and observed learners when discussions are going on in class and listened to the explanations from learners’ when instructional tasks are given to them. The following were, however, not used - analysis of student multiple choice, and representation (eg, a, b, c, d cards). Most of the reviews were done by the teachers and only few were reviewed by the learners.

Questioning was predominately used to seek for feedback from both learners and teachers. This assertion was supported by a previous study that interactive formative assessments promote learning outcomes through questioning in a form of dialogue to provide feedback [9]. Questioning is an important part of classroom interaction as a way of giving teachers a means of identifying gaps in their learners’ understandings, and of arousing interest and motivating learners to participate in class discussions [55, 66]. A research on formative assessment techniques tutors use to assess teacher-trainees’ learning in Social Studies in Colleges of Education in Ghana, the researchers observed in a classroom setting that tutors asked questions in open discussion; use questions and answers to introduce their lesson; and students were called to summarize what they learnt after the lesson [9]. This implies that usage of questioning plays a pivotal role in the classroom. This shows that effective questioning must go hand in hand with the learners’ responses to questions and the teachers’ response to learners’ answers. This implies that questioning as used predominantly with other

cooperative learning techniques like discussion, demonstration, role-play and brainstorming in the lesson initiation, delivery and culmination help learners to consolidate knowledge.

It can therefore be concluded that teachers' responses to learners' answers can be done at any point in time in the lesson by recognizing learners' answers, fortifying answers, engaging learners to respond, building on learners' responses, and avoiding responses that affect learners adversely. The effective usage of these techniques by teachers during teaching and learning helps them to provide immediate feedback to learners. Teachers should bear in mind that not all techniques may be applicable to a particular concept. Teachers should plan well when selecting formative assessment techniques for teaching that will help learners to consolidate knowledge.

3.4. Reasons for using formative assessment classroom techniques / strategies

The reasons for using formative assessment techniques in teaching by teacher trainees in Colleges of Education are discussed here. Teacher trainees were interviewed to elicit their views on the issue. Those interviewed were also observed in a classroom situation while they teach a Junior High School class. The main question used in this section was - *What makes you decide to use formative assessment classroom techniques / strategies?* In all sixty trainees were interviewed for their views on the issue. Some of the responses were scraped off simply because they were repetitive. The following are the case by case responses of some of the sixty teacher trainees interviewed.

Angelina a participant said:

"what makes me to use formative assessment techniques is that it helps me to review the previous lesson taught...it helps learners to respond to questions in class and take active involvement in the lesson."

The participant position on the use of formative assessment techniques such as questions provides feedback to teachers on how their students are learning so that they can devise subsequent lessons in response to students and also to facilitate student involvement and engagement in their learning. In support of what the participant said as stated in the literature, questioning is an important part of classroom interaction as a way of giving teachers a means of identifying gaps in their learners' understandings, and of arousing interest and motivating learners to participate in class discussions [71].

Evelyn said:

"Formative assessments technique usage help learners to grasp the concept in the lesson...it assists learners to become good observers in class when role play is used in class; it helps pupils to become critical thinkers during discussion in class as they share ideas. It does not call for immediate criticism especially when brainstorming technique is used in teaching."

The participant standpoint is that the effective use of formative assessment techniques in the learning activities helps students' involvement in the learning process. The participant was with the view that role play, discussion and brainstorming as teaching techniques helps learners to understand the learning concepts and their active involvement in the lesson help them to provide feedback as they think critically. As stated in the literature, an earlier study supports the participant's views that role play creates a stimulating environment that simulates reality, enabling students to intensify their understanding of the situation or event

being re-enacted. Students gain a deeper insight into enacting issues discussed in the classroom which helps in their thinking about the complexity of human motivations in past events [31]. Other previous studies also back the assertion of the participant's that role – playing boosts students' involvement in teaching-learning process as they are not passive recipients of the instructor's knowledge, rather, they take an active part. Also brainstorming technique is an open sharing activity which encourages all children to participate. By expressing ideas and listening to what others say, students adjust their previous knowledge or understanding, accommodate new information and increase their levels of awareness [43, 72].

Jane a participant said:

“Using formative assessment techniques is that, it promotes teaching and learning as one gets to know the actual performance of the learners...to help the teacher to change the approaches used in teaching when it is realized that learners were having difficulties in understanding the concept taught.”

Jane's views on the use of formative assessment techniques during teaching learning provide students with feedback on their progress towards achieving lesson objectives thereby directing students to focus on the areas which needs more learning efforts. It also provides feedback to teachers on how their students are learning so that they can devise subsequent lessons in response to students' needs. A similar study supports the views of the participant's that Formative Assessment Classroom Techniques (FACTs) are an integral part of teaching and learning; clarifying and sharing learning intentions and criteria for success, and engineer effective classroom discussions and learning tasks [13].

However, another participant Veronica said:

“Techniques in formative assessments help the learners to understand the teaching concept better as they learn by performing activities...especially, techniques like role play and simulation used help learners to get involve and thus understand lesson taught better...for it is said when I hear I forget, when I see I remember but when I do I understand...that is the essence of using formative assessment. These practical techniques used help learners to easily recall concepts taught.”

The participant views imply that, formative assessment techniques guide learners to concentrate on lesson objectives which help teachers to provide feedback. Other studies support the participant's assertion that techniques selected during teaching and learning aid students in understanding subject knowledge and establishing linkages between knowledge and application in everyday teaching and learning as feedback serves as paramount tool in the learning activities [13, 20].

Mary a participant also said:

“It helps to evaluate lessons for feedback when questioning is used. It encourages learners to share ideas about a topic among themselves during the lesson for instance when discussion is used. This promotes interpersonal relationship among learners as well as the learners and the teacher.”

Mary, the participant shares same views with veronica that formative assessment technique helps in the effective evaluation of the lesson as feedback is shared among the learners and the teacher.

The case of Among a participant:

“Formative assessment techniques enable learners to come out with their views / opinion on the question being asked...calling for immediate feedback and clarifications from the teacher during teaching and learning. It ushers the learners into the learning activities thereby making the teacher to talk less. It leads to the achievement of the lesson objective. It enables the teacher to assess the pupil’s level of intelligence in the lesson.”

Among was with that the usages of formative assessment techniques in teaching and learning call for prompt feedback from the teacher to the students to understanding the learning concept which encourage them to both self- peers assess themselves during the ongoing lesson for the teacher to talk less but serves as facilitator. Critical feedback from self-peers is a good way to improve classroom atmosphere and relations. Similar studies support the current study that peer-assessment is a necessary training ground for effective self-assessment, and improve performance [73,74].

Dadzie, a participant said that:

“Formative assessment techniques help to find out the effectiveness of the lesson taught as the teacher is able to find out the understanding level of learners. Its usage helps to diagnose the strengths and weaknesses of the learners. Its usage ensures active participation of learners in the teaching and learning. It motivates learners to share their views concerning a topic as it helps learners to learn from one another.”

The position of Dadzie implies that, the effective use of the formative assessment techniques during ongoing lesson helps the teacher to evaluate the learners to know their strengths and weaknesses. Teacher supporting the learners with feedback motivate them to be active in the lesson and also to understand the lesson objectives. This contention was supported by an earlier study that, active teaching techniques change the pace of the classroom, and is a creative way to increase students’ involvement, motivation, excitement, attention, and perceived helpfulness and applicability of the class [74].

Trainees were observed to establish whether what they said were really practiced in their classroom activities to achieve their teaching objectives. Evidence criteria checklists were used on assessing the reasons for formative assessment techniques usage in class. These were based on whether or not (1) Teacher showed evidence of made instruction and adjusting instruction based on individual learning ability; and (2) Teacher indicated that evidence will be used to plan the next lesson. For the observation on evidence of made instruction and adjusting instruction based on individual learning ability, the outcome indicated that whole class group discussion were used predominantly by teacher-trainees than the small group discussion which in its natural sense would have helped in solving individual learning abilities in class.

The close observation on whether or not teacher-trainees indicated that evidence will be used to plan the next lesson, it was realized that they were using it as the bench mark to introduce the next lesson when the second lessons were observed. Most of the teacher-trainees assigned activity for the next lesson indicating that evidences from the concept taught will be used to introduce the next lesson. The essence here is to motivate the learners to improve upon their performance. Few teacher-trainees, however, did not indicate how the evidence will be used to plan the next lesson. The assertions are supported by other researchers that making good use of formative strategies in assessing students helps them to examine their strength and weakness and

this results in improving teaching practice. Students understand lessons better when they are brought on board during the teaching and learning process [55].

Basically, from the above findings and discussions, active teaching techniques change the pace of the classroom, and are a creative way to increase students' involvement, motivation, excitement, attention, and perceived helpfulness and applicability of the class. Learners involvement in lessons help them to identify concepts in the real world, manipulate phenomena for their own purposes, think about the material in new and complex ways, comprehend phenomena conceptually, and recall, retain, and memorize the material taught better. This clearly shows that formative assessment technique has a stake in teaching and learning of Social Studies. Classroom formative assessment techniques provide means of objective measurement of a wide range of behaviours as they occur in the natural environment. In addition, the use of formative assessment techniques allows for the description and evaluation of specific behaviours. The indication here is that formative assessment techniques in the Social Studies lessons helps the assessor to know if learners are working towards the desired learning goals and the success criteria shared with them. Learners are encouraged to peer assess themselves or share and receive feedback among themselves. It can therefore be realized that most of the trainees decide to use formative assessment techniques on the bases of introducing their lessons, for the purpose of providing effective and immediate feedback and to ascertain performance of learners in the lesson taught.

4. Conclusions and Recommendations

Teacher-trainees have a fair idea on how to use formative assessment classroom techniques in teaching and learning process, although the classroom observation proved otherwise as most of the techniques, they mentioned in the interview were not used in the classroom situation. Role-play, interview, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization were not used by trainees.

Questioning is the predominant formative assessment classroom technique used by the teacher-trainees. Questioning was used principally with other cooperative learning techniques, namely, discussion, demonstration, role-play and brainstorming in the lesson initiation, delivery and culmination. These techniques and strategies help learners to consolidate knowledge. Teacher-trainees' responses to learners' answers were done at any point in time in the lesson. It was done by recognizing learners' answers, fortifying answers, engaging learners to respond, and building on learners' responses in the form of supportive feedback

Formative assessment technique has a stake in teaching and learning of Social Studies as it provides the means of objective measurement of a wide range of behaviours as they occur naturally in the classroom environment. The use of formative assessment techniques allows for the description and evaluation of specific behaviours. It indicated that, formative assessment classroom techniques in the Social Studies lessons helps the assessor to know if learners are working towards the desired learning outcomes and the success criteria shared with them. The effective usage of formative assessment techniques by teachers during teaching and learning helps them to provide immediate feedback to learners.

It is recommended that other formative techniques like role-play, interview, case study, group work, jigsaw, fish bowl, project work, quizzes, and dramatization should be used in addition to these formative techniques such as brainstorming, discussion,

observation, demonstration, debate, storytelling, questions and answers during teaching and learning.

It is also recommended that, formative assessment techniques should be tagged as resourceful teaching techniques to change the pace of the classroom, accelerate the creative way to increase students' involvement, motivation, excitement, attention, and perceived helpfulness and applicability of the class. This will increase learners' involvement in lessons and help them to identify concepts in the real world, manipulate phenomena for their own purposes, think about the material in new and complex ways, comprehend phenomena conceptually, recall, retain, and memorize the material taught better. It will also assist Social Studies teachers to provide means of objective measurement of a wide range of behaviours as they occur in the natural classroom environment.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data Availability Statement

Data is available on request from the corresponding author.

Acknowledgments

The author would like to acknowledge the participants for their time and patient in sharing their views and contributing to knowledge in the field of Formative Assessment Classroom Techniques and Strategies (FACTS).

References

- [1] VanSledright, B. What does it mean to think historically and how do you teach it? *Social Education*, 2004, 68(3), 230-233.
- [2] Hoagland, M. (2000). *Utilizing constructivism in the history classroom*. ERIC Document Reproduction No. ED 482436.
- [3] Driscoll, M. P. (2005). *Psychology of learning for instruction* (3rd ed.). Pearson.
- [4] Shah, R.K. Instructional methods for teaching Social Studies: A survey of what primary school children like and dislike about Social Studies instruction. *International Journal of Advanced Research in Education and Technology*, 2016, 3(1), 81-86.
- [5] Russell, W.B.; Waters, S. Instructional methods for teaching Social Studies: A survey of what middle school students like and dislike about Social Studies instruction. *Journal for the Liberal Arts and Sciences*, 2010, 14(2), 7-14.
- [6] Quashigah, A.Y.; Dake, Y.G.; Bekoe, S.O.; Eshun, I.; Bordoh, A. Evaluation of colleges of education Social Studies curriculum vis-à-vis the junior high school

- Social Studies curriculum in Ghana. *European Journal of Training and Development Studies*, 2014, 1(2), 1-13.
- [7] Eshun, I.; Bordoh, A.; Bassaw, T.K.; Mensah, M.F. Evaluation of Social Studies students' learning using formative assessment in selected colleges of education in Ghana. *British Journal of Education*, 2014, 2(1), 39-48.
- [8] Black, P.; William, D. Assessment and classroom learning: Assessment in education. *Principles, Policy and Practice*, 1998, 5(1), 7-74.
- [9] Bekoe, S.O.; Eshun, I.; Bordoh, A. Formative assessment techniques tutors use to assess teacher trainees' learning in Social Studies in colleges of education in Ghana. *Journal of Research on Humanities and Social Sciences*, 2013, 3(4), 20-30.
- [10] Stewart-Wingfield, S.; Black, G.S. Active versus passive course designs: The impact on student outcomes. *Journal of Education for Business*, 2005, 81, 119-125.
- [11] Bordoh, A. Teacher trainees use of feedback in assessing student learning in Social Studies lessons in basic schools in Ghana: A study of selected colleges of education in the Western North Region. *Social Educator*, 2022, 7(1), 27-43
- [12] Udosen, A.E.; Jude, W.I. Teacher educators' knowledge and use of feedback in tertiary institutions in AkwaIbom State, Nigeria. *Asian Journal of Management Sciences and Education*, 2014, 3(2), 146-160.
- [13] Bordoh, A.; Bassaw, T. K.; Eshun, I. Social Studies tutors' cognition in formative assessment in colleges of education in Ghana. *Development Country Studies*, 2013, 3(11), 1-11.
- [14] Heritage, M. Formative assessment: what do teachers need to know and do? *Phi Delta Kappan*, 2007, 89(2), 140-145.
- [15] Berry, R. Teachers' orientations towards selecting assessment strategies. *New Horizons in Education*, 2010, 58(1), 96-107.
- [16] Eshun, I.; Mensah, M.F. Domain of educational objectives Social Studies teachers' questions emphasize in senior high schools in Ghana. *Journal of Education and Practice*, 2013, 4(4), 185-196.
- [17] Bloom, B. (Ed.). (1956). *The taxonomy of educational objectives, the classification of educational goal*. McKay.
- [18] Smith, S. (2013). Hilda Taba: Curriculum pioneer and architect. In Thomas S. Poetter, (Ed.), *What curriculum theorists of the 1960s can teach us about schools and society today*, (pp.181-191). Information Age Publishing
- [19] Yorke, M. Formative assessment and its relevance to retention. *Higher Education Research and Development*, 2001, 20(2), 115-126.
- [20] Heritage, M. (2010). *Formative assessment: Making it happen in the classroom*. Sage Publications.
- [21] Sadler, R.D. Formative assessment and the design of instructional systems. *Instructional Science*, 1989, 18(2), 119-144.

- [22] Pintrich, P.R. Multiple goals, multiple pathways: The role of goal orientation in learning and achievement. *Journal of Educational Psychology*, 2000, 92(3), 54-64.
- [23] Newman, W. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Allyn & Bacon.
- [24] Clarke, S. (2000). Getting it right-distance marking as accessible feedback in the primary classroom. In S. Askew (Ed.), *Feedback for learning* (pp. 32-45). Routledge Falmer.
- [25] Clarke, S. (2001). *Unlocking formative assessment: Practical strategies for enhancing pupils' learning in the primary classroom*. Hodder & Stoughton Educational.
- [26] Bekoe, S.O.; Eshun, I. Influence of the differences in Social Studies teachers' curriculum conceptions on curriculum implementation in senior high schools in Ghana: Implication for national curriculum policy. *Development Country Studies*, 2013, 3(6), 105-113.
- [27] Beidatsch, C.; Broomhall, S. Is this the past? The place of role-play exercises in undergraduate history teaching, *Journal of University Teaching and Learning Practice*, 2010, 7(1), 6-12.
- [28] Johnson, D.; Sutton, P.; Harris, N. (2001). *Extreme programming requires extremely effective communication: Teaching effective communication skills students in an IT degree*. Proceedings of 18th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education at the ASCILITE, University of Melbourne, Melbourne.
- [29] Luca, J.; Heal, D. (2006). *Is role-play an effective teaching approach to assist tertiary students to improve teamwork skills?* ASCILITE.
- [30] Ali, S.N. (2012). *Malaysian polytechnic lectures' teaching practices with ICT utilization to promote higher-order thinking skills*. Graduate Theses and Dissertations, Paper 12623. Iowa State University.
- [31] Ip, A.; Linser, R.; Naidu, S. (2001). *Simulated worlds: Rapid generation of web-based role-play*. The Seventh Australian World Wide Web Conference, 21st-25th April, Coffs Harbour, NSW, Southern Cross University.
- [32] Manorom, K.; Pollock, Z. (2006). *Role play as a teaching method: A practical guide*. Ubon Ratchathani University.
- [33] Lloyd, C.V. Engaging students at the top (without leaving the rest behind). *Journal of Adolescent and Adult Literacy*, 1998, 42(3), 184-191.
- [34] Kumari, P.; Joshi, A.; Sharma, M.L. (2014). *Simulation of strong ground motion due to mw 6.9 Sikkim earthquake using semi-empirical forward modeling*. Retrieved from <https://www.researchgate.net/publication>.
- [35] Gupta, A., Peckler, B., & Schoken. D. Introduction of hi-fidelity simulation techniques as an ideal teaching tool for upcoming emergency medicine and trauma residency programmes in India. *J Emerg Trauma Shock*. 2008, 1,15–18.
- [36] Sallas, E.; Wildman, J. L.; Piccolo, R.F. Using simulation-based training to enhance management education. *Academy of Management Learning and Education*, 2009, 8(4), 559-573.

- [37]Clarke, E. Learning outcomes from business simulation exercises: Challenges for implementation of learning technologies. *Education and Training*, 2009, 51(6), 448-459.
- [38]O'Rourke, P.D. Current use of agribusiness simulation games: Survey results of university agribusiness and agricultural economics programmes. *Developments in Business Simulation and Experiential Learning*, 2001, 28, 168-174.
- [39]Klassen, K.J.; Willoughby, K.A. In-class simulation games: Assessing student learning. *Journal of Information Technology Education*, 2003, 2, 1-13.
- [40]Ishijama J.; Miller, W.J.; Simon. E. (2015). *Handbook on teaching and learning in Political Science and International Relations*. Edward Elgar Publishing Limited.
- [41]Yusuf, N.; Ai-Banawi, N. The impact of changing technology: The case of e-learning. *International Journal of Contemporary Issues in Education*, 2013, 6(2), 173-180.
- [42]Warnich, P.; Meyer, L. Trainee teachers' observation of learner-centred instruction and assessment as applied by History and Social Sciences teachers. *Yesterday and Today*, 2013, 9(9), 11-19.
- [43]Baumgartner, J. (2012). *The step by step guide to brainstorming*. Erps-Kwerps.
- [44]Freely, A.; Steinberg, D. (2008). *Argumentation and debate* (12th Ed.) Wadsworth Publishing.
- [45]Shaw, A. J. (2012). *Using small group debates to actively engage students in an introductory Microbiology course*. Endicott College, Beverly.
- [46]Roy, A.; Macchiette, B. Debating the issues: A tool for augmenting critical thinking skills of marketing students. *Journal of Marketing Education*. 2005, 27(3). 264-276.
- [47]Joung, S.; J. M. Keller. (2004). *The effects of high-structure cooperative versus low-structure collaborative design of decision change, critical thinking, and interaction pattern during online debates*. Presentation at the Association for Educational Communications and Technology, October 19-23, 2004, Chicago, IL.
- [48]Walker, M.; Warhurst, C. In most classes you sit around very quietly at a table and get lectured at: Debates, assessment and student learning. *Teaching in Higher Education* 2000, 5(1), 33-49.
- [49]Chan, C. (2009). *Assessment: Direct observation, assessment resources*. University of Hong Kong [<http://ar.cetl.hku.hk>].
- [50]Granham, M. (2001). Teacher observation in student assessment. Discussion paper presented at Queensland School Curriculum Council level. Brisbane, Australia.
- [51]Noonan, B.; Duncan, C.R. Peer and self-assessment in high schools. *Practical Assessment, Research and Evaluation*, 2005, 10(17), 1-8.
- [52]Brown, G.; Irving. E.; Keegan. P. (2008). *An introduction to educational assessment, measurement, and evaluation: improving the quality of teacher-based assessment* (2nd edition). Pearson Education.

- [53] Bekoe, S.O.; Kankam, B.; Ayaaba, D.A.; Eshun, I.; Bordoh, A. Teacher-trainees' sense of efficacy in students' engagement, instructional practices and classroom management in Social Studies lessons. *American Journal of Psychology and Behavioural Sciences*, 2014, 1(6), 52-60.
- [54] Hibbard, K.M. (1996). *A teacher's guide to performance-based learning and assessment*. Association for Supervision and Curriculum Development.
- [55] Eshun, I.; Bordoh, A.; Bassaw, T. K.; Mensah, M.F. Evaluation of Social Studies students' learning using formative assessment in selected colleges of education in Ghana. *British Journal of Education*, 2014, 2(1), 39-48.
- [56] Lane, S., & Stone, C. A. (2006). Performance assessment. In R. L. Brennan (Ed.), *Educational measurement* (4th Ed.) (pp. 387-424). Praeger.
- [57] Brualdi, A. Implementing performance assessment in the classroom. *Practical Assessment, Research and Evaluation*, 1998, 6(2), 1-3.
- [58] Lai, R. E. (2011). *Performance-based assessment: Some new thoughts on an old idea*. Pearson Education.
- [59] Stiggins, R.J. (1997). *Student-centered classroom assessment* (2nd Ed.). Merrill.
- [60] Kankam, B.; Bordoh, A.; Eshun, I.; Bassaw, T.K.; Korang, F.Y. An investigation into authentic assessment practices of Social Studies teachers in the Senior High Schools (SHSs) in Ghana. *American Journal of Social Sciences*, 2014, 2(6), 166-172.
- [61] Nunes, A. (2004). Portfolios in the EFL practice: Disclosing an informed practice. *ELT Journal*, 58(4), 327-335.
- [62] Aydin, S. A qualitative research on portfolio keeping in English as foreign language writing. *The Qualitative Report*, 2010, 15(3), 475-488.
- [63] Hamp-Lyons, L.; Condon, W. (2000). *Assessing the portfolio: Principles for practice, theory, and research*. Hampton Press, Inc.
- [64] McMullan, M. Students' perceptions on the use of portfolios in pre-registration nursing education: A questionnaire survey. *International Journal of Nursing Studies*, 2006, 43 (3), 333-343.
- [65] Black, P.; Harrison, C.; Lee, C.; Marshall, B.; William, D. (2003). *Assessment for learning: Putting it into practice*. Open University Press.
- [66] Monyai, R. B. (2006). Teaching strategies. In M. M. Niemen & R. B. Monyani (Eds.). *The educator as mediator of learning* (pp.130 -134). Van Schaik.
- [67] Maylor, S.; Keogh, B.; Goldsworthy, A. (2005). *Active assessment*. David Fulton.
- [68] Yin, K. R. (2013). *Case study research: Design and methods* (3rd Ed.). Sage Publications.
- [69] Kankam, B.; Bordoh, A.; Eshun, I.; Bassaw, T.K.; Andoh-Mensah, C. Social Studies teachers' content knowledge impact on students in the senior high schools in Ghana. *Open Science Journal of Education*, 2014, 2(6), 73-82.
- [70] National Council for Curriculum and Assessment (NaCCA). (2020). *Religious and Moral Education common core programme curriculum (Basic 7 - 10)*. NaCCA of Ministry of Education, Ghana.

- [71]Robertson, S. A. (2008). *Analysis of a teacher's questions*. Rhodes University, Educational Department, Grahams Town.
- [72]Poorman, P.B. Biography and role-playing: Fostering empathy in abnormal psychology. *Teaching of Psychology*, 2002, 29(1), 32-36.
- [73]Bordoh, A.; Eshun, I.; Ibrahim, A.W.; Bassaw, T.K.; Baah, A.; Yeboah, J. Technological Pedagogical Content Knowledge (TPACK) of teachers and their formative assessment practices in Social Studies lessons. *Universal Journal of Social Sciences and Humanities*, 2022, 2(4), 201-209.
- [74]Koka, R.; Jurāne-Brēmane, A.; Koķe, T. Formative assessment in higher education: From theory to practice. *European Journal of Social Science Education and Research*, 2017, 4(1), 28-34.



© 2023 by the author(s); licensee International Technology and Science Publications (ITS), this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (<http://creativecommons.org/licenses/by/4.0/>)