

EVALUATION OF THE IMPACT OF SCIENCE, TECHNOLOGY AND MODERNISATION IN SOCIAL STUDIES CURRICULUM ON UNIVERSITY STUDENTS

Samuel Ofori Bekoe (Ph.D), Lucy Effeh Attom (Ph.D) and Isaac Eshun (Ph.D)*

Department of Social Studies Education. Faculty of Social Science Education. University of Education, Winneba, Ghana.

ABSTRACT: *This study was designed to evaluate the impact of Social Studies course - "Science, Technology and Modernisation", how it can be best delivered and learnt by university students. The novelty research was devised to ascertain how effective out-of-door activities and classroom interactive teaching and learning will have on students learning performance. The course is meant to develop in learners an attitude of re-examining society from the point of view of developments in science, technology and modernity. Four hundred students were involved in the study. Students were asked to answer pre-instructional, instructional and post instructional course questions. Unstructured interviews were also used for clarification of issues raised by students. The pre-instructional course questions were: (1) what do you know about "Science", "Technology" and "Modernisation"?; and (2) what are the ideal teaching and learning techniques you will wished to be adopted in the classroom? The instructional course questions were: (1) what are your prospects for the course of study; and (1) what are the challenges you encountered during teaching and learning?. The post instructional course questions were: (1) what are the strengths of the teacher and the learners?; and (2) what are the achievements from the course of study?. These processes were employed to elicit responses from the students. Interpretative analytical approach was adopted to analyse the data collected. It was concluded that there was a strong consensus among students that the ideal participatory teaching and learning method, techniques and strategies they suggested to be used were later precluded by them. It was also revealed that majority of students were not in tune with the purely interactive and participatory lesson delivery approach. Based on the findings, the study recommended that favourable classroom atmosphere must be created, coupled with enforced cooperative teaching and learning techniques to enhance participation of students. Also, in order to ensure effective retention of concepts taught, students must be exposed to concrete and technological materials to practicalised the teaching of Social Studies. Educational / field trip should be incorporated in the teaching of Social Studies, especially when teaching the concepts "Science and Technology". This will help students probe into issues concerning science and technology by using their observational, manipulative and investigative skills.*

KEYWORDS: Science, Technology, Modernisation, Evaluation, Social Studies, Curriculum, University, Students.

INTRODUCTION

Background

The article has the following arrangement: firstly, an introduction which shows the background of themes which are important to the study; secondly, it presents a review of literature on the issues of effective teaching in the Social Studies Curriculum; thirdly, a methodology of the

research is presented; results and its discussion are presented in the fourth part and finally, the conclusion with recommendations of the work are shown in the last chapter. There are different schools of thought about what should be the ideal content and method of teaching and learning of Social Studies. There are evidences of Social Studies curriculum conceptions and classroom practices in the Ghanaian schools (Quashigah, Kankam, Bekoe, Eshun and Bordoh, 2015b). The authors further stated that, “differences exist in the conceptualisation of Social Studies as Citizenship Education but its focal point reflects on how contemporary problems could be solved (Quashigah et al., 2015b: 133). In a research conducted by Kankam, Bekoe, Ayaaba, Bordoh and Eshun (2014) shows that curriculum differences seem to be evidenced in the Social Studies scope of content for Colleges of Education and how the JHS teaching syllabus for Social Studies is structured in Ghana. The clear curricular difference is seen as a problem in a sense that Social Studies syllabus they will use to teach at the Junior High Schools (JHS) will not be in consonance with what they were taught while in college. This has been a challenge in Social Studies curricular across the different level of educational setting.

This has become a national and international concern in a sense that Bekoe, Kankam, Ayaaba, Eshun, and Bordoh (2014:58) concluded that “mentees lack the needed methodology, knowledge and skills in teaching Social Studies that will result in problem solving.” This may be attributed to the inconsistencies in curriculum framework of the subject across the first cycle, the second cycle and the tertiary institutions in Ghana.

“The varying conceptions through time and space indicated that Social Studies is seen as a subject introduced solely to right the wrong in society, and its teaching and learning must be centred on issues and how problems are solved to unearth youth with positive attitudinal building skills and behavioural change” (Quashigah et al., 2015b:133). This implies that Social Studies concepts like “Science, Technology and Modernisation” can best be taught to university students by employing teaching techniques in the affective, psychomotor and the cognitive domains that express the body of knowledge, set of values, skills, critical thinking, positive attitudes and behavioural orientation that are considered vital and necessary for the sustenance and well-being of the people and society.

According to Quashigah, Attom and Eshun, (2017:3-4) “‘Science’ in Social Studies Education is not limited to the so-called natural sciences, such as Chemistry, Physics and Biology. Rather, it is equally applicable to much of what is popularly called social and behavioural science. Moreover, science is not static as may be implied by the use of terms as “systematic” and organised knowledge.” Instead, science is considered as very dynamic and continually developing. It involves an on-going methodology and processes by means of which the knowledge is obtained.” The practice of Science in Social Studies Education equally involves making series of observations and conclusions. Thus, science has to do with the body of knowledge obtained from observations (Quashigah et al., 2017).

According to Quashigah et al. (2017:6) “Scientific fields are broadly divided into natural sciences (to study natural phenomenon) and social sciences (to study human behaviour and societies). However, in both of these divisions, the knowledge must be obtained through observations and capable of being tested for its validity by other researchers working under similar conditions.” Technology on the other hand, refers to the totality of tools, materials, objects and methods available to and used by individuals or group of individuals in producing items or providing services that are essential for comfort and survival (Quashigah et al., 2017).

Although, there are differences between Science and Technology, according to Quashigah et al. (2017:16) “both concepts are closely linked and function together. Scientific knowledge manifests in Technology. In the same way, there cannot be any technology without science. The words “Science” and “Technology” can and often are used interchangeably. But the goal of science is the pursuit of knowledge for its own sake, while the goal of technology is to create products that solve problems and improve human life. Simply put, technology is the practical application of science.” This suggests that technology is the consequence of science and has to satisfy requirements such as utility, usability and safety.

Effective curriculum delivery of the concepts “Science”, “Technology” and “Modernisation” therefore calls for a multidimensional trend whereby seriousness is attached to educational policy, curriculum design and developers, implementers, curriculum supervisors as well as the learners. Contemporary knowledge in science and technology should be geared towards modernisation of the society. This can be done when the implementers of curriculum are highly supervised.

There is therefore the need to monitor, inspect and attempt to improve upon the quality of academic and non-academic aspects of education delivery. Curriculum supervision may include general appraisal of staff and students’ academic and non-academic facilities, logistics, procurements and supplies to schools, among others. In the words of Cobbold, Kofie, Bordoh and Eshun (2015b:21), curriculum supervision is intended to embrace those activities in the school which directly involve the implementation, monitoring, evaluation and appraisal of the school curriculum.

Whether such conditions exist or not success criteria and flaws of curriculum implementers and learners should be shared through feedback. This study is critical to the teaching and learning of Social Studies with the aim of knowledge acquisition and development of right attitudes, values and skills. Reflecting on the pre-instructional, instructional and post-instructional activities is necessary in providing feedback to teachers and students on appropriate and best practices that can aid scholarship in these areas. It will also bring to light shortfalls in lesson delivery. Teaching and learning without critical reflection may create topsy-turvy situations that can hinder acquisition of knowledge, skills and appropriate behaviour. Critical reflection on Science, Technology and Modernisation lessons will bring to light any discrepancies and disconnection between the teaching and learning process and the performance of students.

The problem arises as most curriculum supervisors and Social Studies teachers apparently hold the view that effective teaching is realised when there is high academic performance from learners. It is on this premise that this research is woven around to evaluate the impact of the Social Studies course - “Science, Technology and Modernisation” on university students. The principle here is ascertaining how effective classroom interactive teaching and learning will have on students learning performance.

The rationale for the teaching of Social Studies at the first cycle, second cycle and the tertiary institutions in Ghana is to equip students with problem solving skills. On this note content and topics are thoughtfully selected to ensure that learners acquire the necessary knowledge, skills, attitudes and values to be able to solve individual and societal problems. As a result of this, the content of the course of study - Science, Technology and Modernisation in Social Studies has been carefully selected to teach the university students with the aim of having problem solving ability, understand the content knowledge and how best they can teach the subject. The

pedagogical content knowledge of the learners has become necessary since realising the best understanding of the concepts and how it should be taught will go a long way to help them teach in the first and second cycle institutions. It is therefore, highly justifiable that this research paper has the intention to fill the disconnect between the non-performance of students as a result of not involving learners in teaching and how best interactive teaching and learning will result in better understanding of concepts taught in Social Studies. This research paper has really become imperative since there has not been any evaluation of the Social Studies courses taught at the university. The outcome might help bridge the gap between theory and practice by calling for curriculum review and development.

The research was guided by six questions: made up of two pre-instructional, two instructional, and two post instructional course questions. The scope of the study covered the evaluation of the impact of a Social Studies course - Science, Technology and Modernisation. It was further confined to the third-year Social Studies students of the University of Education, Winneba, Ghana.

REVIEW OF LITERATURE ON EFFECTIVE TEACHING AND LEARNING IN SOCIAL STUDIES CURRICULUM

Kellough and Kellough (1999:417), cited in (Eshun & Mensah, 2013b:186) asserted that, “teaching and learning are reciprocal processes that depend on and affect one another.” Teaching, according to Borich (2004), is a complex and difficult task that demands extraordinary abilities. According to Kyriacou (1995), cited in (Eshun & Mensah, 2013b:186-7), “effective teaching is essentially concerned with how best to bring about the desired student learning by some educational activities.” The authors further asserted that, from psychological perspective, teaching is where the implicit emphasis is on identifying observable behaviour in the classroom which can be linked with an influence on observable and measurable product variables. In short, teaching describes the action of a teacher that helps students to acquire and retain knowledge, attitude and skills (Eshun & Mensah, 2013b).

Learning, on the other hand, can be viewed as both a product and a process. According to Twigg (1994), cited in (Eshun & Mensah, 2013b:187) “many educational psychologists generally defined learning as a “change in behaviour as a result of experiences”. This behaviourist approach assessed learning as an outcome that resulted in some external behavioural activity; however, not all learning leads to overt behaviour. Consequently, other theorists have refined the definition of learning to consider changes in the way people “understand, experience, or conceptualise the world around them” (Ramsden, 1992). This therefore, implies that, learning is a multi-domain process involving intellect, emotion, and physical skills. In other words, learning is associated with behavioural changes in the cognitive, affective (attitudes and feelings) and psychomotor domains (Eshun & Mensah, 2013b). Further, these domains are connected, and the condition of one influences the others. The attainment of a student is the result of the functioning of his whole personality; therefore apart from assessment of the cognitive domain, the affective and psychomotor domains must be given paramount place when assessing learner’s outcomes.

According to Eshun and Mensah (2013b:187), “establishing a comprehensive assessment practices in Social Studies education is very important because Social Studies encompasses relevant knowledge, right attitudes and skills needed by all citizens in order to make rational

decisions and be able to solve personal and societal problems.” Therefore, for complete assessment in the university level, the three domains of educational objectives must be assessed if premium is to be placed on the quality of teacher education.

On this premise, Quashigah, Dake, Bekoe, Eshun, & Bordoh (2014) posited that, quality teacher education has been seen as a fundamental factor for effective educational outcomes in moving the nation forward. This shows that the development of education could not be successfully done without looking at the teacher and the training to be acquired. This indicates that teacher training in Ghana should be given priority and subjects like Social Studies taught should be geared towards nation building.

This, however, an outcome of a research by Bekoe and Eshun (2013a:44) on Social Studies curriculum feuding and implementation challenges in Ghana, revealed that “teacher training institutions subscribe and use a particular conception of Social Studies curriculum for the production of Social Studies education graduates.” This is further buttressed by Quashigah et al. (2014:11) that “College of Education (CoE) in Ghana use a particular conception of Social Studies for the production of Social Studies teachers, which is very different from that of the Junior High School (JHS).” Although both the CoE and JHS Social Studies curricula see the subject as an integration of knowledge, the point of contention has been the nature and acceptable level of integration.” To them, the foregoing implies that a gap is created in the knowledge and the ideal practices of newly qualified teachers from the colleges of education (Quashigah et al., 2014).

This suggests that the way Social Studies is taught need to get a makeover and be woven around relevant issues that will unearth positive behavioural change in learners. Eshun and Mensah (2013a:83) assert that “Social Studies should be taught as a holistic subject, which should reflect behavioural change in students and not facts from other social sciences. Social Studies teachers should stress on teaching of skills more than the factual content. The main role of the Social Studies teacher is to emphasise the development of relevant knowledge, positive attitudes, value and problem solving skills of students.” This calls for the need of harmonising all Social Studies curricular documents to reflect problem solving.

This notwithstanding, so many Social Studies teachers only teach by lecturing and expect rote memorisation from their students. This happens often because of the overwhelming amount of material contained in a typical Social Studies curriculum framework (Bekoe, Quashigah, Kankam, Eshun & Bordoh, 2014). One main reason teachers have to cover so much information is because of high stakes testing. Researchers have found that “teachers under the pressure of high stakes testing tend to increase their dependency on teacher-centred instructional practices (e.g. lecture) and the superficial coverage of content driven textbooks” (Bekoe et al.:54). High stakes testing has caused teachers to move away from student-centred approaches “such as discussion, role-play, research papers, and cooperative learning” because they need to learn “just the facts” because that is what the tests cover (Bekoe et al.: 54).

Improving Social Studies curriculum calls for contemporary content and distinctive methodology of delivering it which will withstand changes for a considerable amount of time. It is on this proposition that, Parkay and Stanford (2001), cited in Quashigah, Eshun & Mensah (2015:76) asserted that “effective teachers use a repertoire of teaching models and assessment strategies depending upon their situations and the goals and objectives they wish to attain.”

Assessment that acknowledges the diverse social, cultural and academic needs of learners as well as the situated nature of learning has enormous potential to not only scaffold effective learning but also to generate positive outcomes for students in Social Studies (Bordoh, Bassaw & Eshun, 2013). This has become necessary since curriculum dictates what is taught and assessed in an educational institution (Bordoh et al.,: 1). With its implication for teaching and learning of concepts in Social Studies, Bekoe, Eshun and Bordoh (2013:28) suggested that “students taught and assessed not to understand Social Studies as Citizenship Education is a problem. Formative assessment should cover the three learning domains, but in setting and scoring questions, importance is attached to the cognitive domain to the neglect of the affective and psychomotor domains which are also important.” The over emphasised knowledge component of the subject may let students pass through the academic system without acquiring the needed skills, values and attitudes that will enable them to right the wrong in society using appropriate tools (Bekoe et al.,: 28).

According to Eshun and Mensah (2013b:186), “It appears that instructional testing has always placed more emphasis on the low-order level of thinking. The quality of test depends on the ability of the individual to capture most if not all skills in thinking, from the content taught in the curriculum. A well-set test requires a skilful individual.” This has become necessary because a research conducted on the final-year teacher trainees on internship in the Ghanaian Colleges of Education by Quashigah et al. (2015a:77) found that “School Based Assessment (SBA) was essentially not focused on attitudes and values; that is, affective skills development. Assessments were of mainly lower level of understanding like knowledge and comprehension.” It should be noted that students learn best when they are asked questions that would require them to apply the skill on thinking and reasoning as suggested by Bloom, since application of them would promote citizenship. So, Social Studies teachers need to employ them as a practice to prepare the learner for citizenship responsibility.

This brings us to the issue of the questions teachers use in assessing students in the teaching and learning of Social Studies. One of the major duties of a Social Studies teacher is to promote thought and inspire inquiry in students, and one effective way of doing this, is through proper questioning in the classroom (Eshun & Mensah, 2013b:186). Caram and Davis (2005) emphasised that, when teachers’ questions are used correctly, it can enhance student learning by developing critical thinking skills, reinforce student understanding, correct student misunderstanding, provide feedback for students and enliven classroom discussions. Teacher’s questions are of significant values for many instructional purposes, eliciting student reflection and challenging deeper student understanding and engagement in the classroom.

According to Croom and Stair (2005), classroom questions are best used as problem-solving tools to help indicate students’ academic progress or to assess students’ critical thinking skills. This was supported by Vogler (2005) that questions can monitor comprehension, help make connections to prior learning and can stimulate cognitive growth. Classroom teachers are aware that it is possible to transfer factual knowledge and conceptual understanding through the process of asking questions. In view of Danielson (1996:47), “good and skilled classroom questions, when carefully crafted and framed engage students in a true exploration of the content and allow the students to exhibit their understanding of the concept taught”. Whereas, unskilled classroom questions from the teachers focus on short-answers, low-level questions that just check for students’ knowledge. Danielson (1996) also called these types of questions as “recitation questions” rather than “in depth discussion questions.” According to Eshun and Mensah (2013b:186), “In Social Studies classrooms, teachers’ questions are vital components

of proper understanding of facts, concepts and generalisations which is an effective way of learning.” In the view of Fisher (1995:76), teachers’ questions give the children the opportunity to connect what they know with what they needed to examine and reflect on in their own thinking.

Questioning has been, for thousands of years, one of the most popular modes of teaching (Tan, 2007) and research attention has been paid to teacher questions (Guan Eng Ho, 2005). According to Ornstein and Lasley (2000), good questioning is both a methodology and an art. Therefore, if used well it can make a significant contribution to improve teaching, learning and assessment. According to Latham (1997), questioning is used for assessing students and also enables teachers to engage students in higher-order thinking process and stimulate their curiosity. All these suggest that there are different reasons for asking questions in Social Studies classrooms by teachers. In this vein, Aggarwal (1982:84) succinctly caution that “Social Studies more than any other subject demands well prepared conscious men and women of sound knowledge and training, whose personalities rank high among men.”

It is on this that Eshun, Bordoh, Bassaw and Mensah (2014:46) asserted that “effective formative assessor requires someone who has the necessary in-depth content knowledge of the subject s/he is teaching.” Bekoe and Eshun (2013c:111) concluded that “the background knowledge of Social Studies teachers is built from their training institutions and this goes to influence the way they teach (i.e. selection of content, unit or topic, formulation of objective(s), mode of teaching, and assessment tool(s) used).” According to Ayaaba, Eshun and Bordoh (2014:65) “If Social Studies is to effectively achieve its critical goal of citizenship education in Ghana, certain fundamental changes will need to be made to the way the subject is conceptualised, taught and examined, among others, in order to surmount the numerous challenges plaguing the teaching of the subject.”

What is encouraging about these facts is that research has shown that students understand concepts taught better from student-centred approaches. Eshun (2013:17) asserted that, “teaching Social Studies is stressed to be done in student-centred techniques and strategies.” Eshun and Mensah (2013b:185) further stressed that, brainstorming, role-playing, simulation, discussion and debate were the major techniques stressed by both Colleges of Education curriculum and the JHS Social Studies syllabus in Ghana. This makes information becomes more meaningful to learners; therefore, they retain it for longer periods of time.

Cuthrell and Yates (2007) found that Social Studies content should be in-depth with lessons and activities. This calls for the need for teachers to be abreast of how to incorporate out-of-door activities like field trip into their teaching in order to help learners develop some skills and become more comfortable when learning Social Studies. Field trip can be conceived to be a valuable method of instruction, providing students with important cognitive and affective benefits (Ajitoni & Salako, 2013). On a more succinct manner, Darling (2005) defines field trip as an away from school function. 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” (Ediger, 2007:18).

In Ghana, according to Quashigah et al. (2014:3) “the teaching syllabus for Social Studies prepares the individual by equipping him or her with knowledge about the culture and ways of life of their society, its problems, its values and its hopes for the future.” This clearly shows that the ultimate aim or objective of the integrated Social Studies is Citizenship Education. The

issue has been this, “although Social Studies is seen as an integrated body of knowledge of the social sciences, there is an issue of acceptable level of integration” (Bekoe & Eshun, 2013a:43). As a result of this, “teachers have varied conceptions about Social Studies as an amalgamation of the social sciences, citizenship education, reflective inquiry or problem solving” (Bekoe & Eshun, 2013b:92). On the same issue of Social Studies curriculum conception, a research conducted by Quashigah et al., (2015b:133) found that teacher-trainees viewed Social Studies as the teaching of geographical concepts, citizenship, global citizenship, multicultural, human rights, political, economic, moral and peace education.”

Quashigah, Kankam, Bekoe, Eshun, and Bordoh, (2015b:133) asserted that “there have been emerged issues and changing conceptions of teaching and learning of Social Studies over the years with regards to its meaning, scope, nature, objectives and even the way assessment tools are selected in teaching it. In the view of Quashigah, Kankam, Bekoe, Eshun, & Bordoh, 2015a:77) the “conceptualisations of the Social Studies curriculum have direct effects on what and how the subject is taught. The confusion created by varying definitions and perceived objectives hinders the teaching and attainments of the subject’s goal-positive attitudinal development and behavioural change.”

This notwithstanding, Quashigah et al. (2015:133) gave an epigrammatic definition by summarising all the diverse definitions based on the scope of content of Social Studies by asserting that, “the varying conceptions through time and space indicated that Social Studies is seen as a subject introduced solely to right the wrong in society, and its teaching and learning must be centred on issues and how problems are solved to unearth youth with positive attitudinal building skills and behavioural change.” This implies that Social Studies concepts like “Science, Technology and Modernisation” can best be taught to university students by employing interactive and participatory teaching and learning techniques that are considered vital and necessary for the sustenance and well-being of the people and society. This can highly be done when the essence of feedback is fused into the Social Studies curriculum for both the teacher and the learner to ascertain what they are falling short of, and have to better their lot.

Feedback in teaching and learning, according to Hattie and Timperley (2007:81) “is an information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one’s performance or understanding.” This clearly shows that feedback for learning is provided to the learner with the intended purpose of improving learning. Ramaprasad (1983:4) describes feedback as a tool that provides information that has an impact on the performance, stating, “Feedback is information about the gap between the actual level and the reference level of a system’s parameter which is used to alter the gap in some way.” Feedback, in the view of Cobbold, Kofie, Bordoh and Eshun (2015a) can simply be regarded as information a teacher/learner receives on how he/she is doing in his/her efforts to reach the desired goal. Both teaching and learning aim at achieving targeted goals. While the teachers/learners strive to reach these goals, they constantly need information on how well or otherwise they are on course. Such information must be descriptive enough to direct the teachers/learners and point them on the way to achieve their goals. Thus, feedback is not advice, evaluation or judgments, neither is it a grade as these cannot possibly tell the learners what to do next time to improve their performance.

Feedback should identify the gap between expected outcome and teachers/students’ current achievement and give assistance on how to close the gap in future. When feedback functions this way, scholars prefer to regard it as feed forward because it is future work that would be improved (Walter, 2013), cited in (Cobbold et al., 2015a). It therefore, means that learners must

be engaged in activities that are goal-oriented and somebody assesses the work and gives feedback that informs them the extent to which they are succeeding or not and what needs to be done to reach the goal (Udosen & Jude, 2014). The quality of feedback is judged by its characteristics and attributes towards its purpose. Given the definitions and characteristics of feedback, it is then seen to be an important component of supervision. Descriptive feedback rather than evaluative feedback can focus on the strength or weakness of Social Studies teachers and learners. Feedback is most effective when it points out strength in the work as well as areas needing improvement.

Ramaprasad (1983) emphasised that information is only considered feedback when it is used to alter a gap. This means that the feedback generated from teaching must be used to make changes in the teachers and students task performance. This will help them close the gap between their status and intended goal attainment. As pointed out by Wiggins (2012), helpful feedback is goal referenced; tangible and transparent; actionable; user-friendly; timely; ongoing; and consistent. Among the strategies suggested to achieve high quality feedback by Brookhart (2008), cited in Cobbold et al. (2015b) include: timing, amount of feedback, mode, and the audience meant for.

In the view of Eshun et al. (2014:46) “The presence of mere feedback is insufficient for judging the guidance of learning and that feedback should rather help learners to assess themselves whether they are doing well or not.” To the teacher, Eshun and Mensah (2013b) state that, there is the need to make appropriate educational decisions, and refocus students’ learning to make it more efficient and effective. In addition, the continuous monitoring of students’ learning will provide teachers with feedback about their effectiveness as curriculum implementers, and then the results of the assessment can be used to enhance teaching. This suggests that feedback about the specifics of individual work is best addressed to the individual in a way he/she can understand. The clarion call for effective teaching and the use of feedback to boost teaching and learning of Social Studies concepts will not be possible if the curriculum is not properly supervised.

According to Eshun, Bordoh and Kofie (2015:146) “various issues relating to curriculum supervision have proved quite controversial. The controversy stems from the different conceptions held by curriculum leaders and teachers about the nature, approaches, importance, and practice of curriculum supervision within different educational delivery settings.” Educational systems and institutional frameworks differ for sure. In the view of Cobbold et al. (2015a:26), effective curriculum supervision thrives on both supervisors and supervisees keeping records of all formal, as well as informal supervision sessions and providing immediate feedback. This implies that feedback has the potential to influence teaching and learning positively. This will happen when feedback information is used by the teachers and learners to shape their actions positively. This indicates that curriculum supervision is seen as a multi-task concept geared towards improvement in educational delivery.

The current period of all-encompassing changes in curriculum reforms within the context of post-modern educational delivery is necessitating corresponding changes in the roles of Social Studies teachers. The roles of Social Studies teachers have assumed more complex dimensions, perhaps, because the Social Studies curriculum of today and its process of delivering have become much more complex on the premise of solving individual and societal problems.

METHODOLOGY

Qualitatively, interpretative research design was employed to evaluate the impact of the Social Studies course - “Science, Technology and Modernisation” on university students. The population for the study was the third year (level 300) students of the University of Education, Winneba, Ghana. Purposive sampling technique was employed to select Social Studies students for the study. The accessible population, which also happened to be the same as the target population, included all the level 300 Social Studies students.

A sample size of 400 students was selected from the Social Studies Education Department of the University of Education, Winneba, Ghana. These students were tasked to offer the subject “Science, Technology and Modernisation” as one of the courses of study. Students were asked to answer pre-instructional, instructional and post instructional course questions. Unstructured interviews were also used for clarification of issues raised by students. For the pre-instructional course questions, students were asked questions about the common knowledge they have about the concepts to be studied, and the ideal methodology to be used in teaching and learning. The instructional course questions were on students prospects for the course, and the challenges encountered by students during teaching and learning.

In consonance with the purpose of the research and issues raised in the questions before, and during the study, the students were also asked questions at the end (post instruction) of the course of study. The students were asked to come out with the strengths of both the teacher and the learners, and whether their expectations were met (achievements) through the course of study.

RESULTS AND DISCUSSION

This study was conducted purposely to evaluate the impact of a Social Studies course - “Science, Technology and Modernisation” on the third year Social Studies students of the University of Education, Winneba, Ghana. This was discussed under six sub-themes. These are: (4.1) Common knowledge about science, technology and modernisation; (4.2) Ideal method / techniques / strategies to be used in teaching and learning; (4.3) Prospects for the course; (4.4) Challenges encountered by students during teaching and learning; (4.5) Strengths of the teacher and the learners; and (4.6) Achievements from the course of study.

Common knowledge about science, technology and modernisation

In order to achieve the purpose of this section, students were asked prior question before the start of the course of study. The research question for this section was - *what do you know about the concepts “Science, Technology and Modernisation”?* This was formulated to seek answers from the respondents whether there are common convergence of their knowledge base about Science, Technology and Modernisation. The outcomes of their responses are presented in an interpretative summary below:

On the meaning of Science, the summary of what they wrote were mainly the import of the physical and biological sciences; only few of the students were able to speak into the concept “Science” linking the meaning in the social sciences. Majority of the students were having misconception about the meaning of Technology to be the only tangible things derived from the processes of science that help individual to work easier and live better. Only few of the

students were on point adding the software processes that help us to work easier and live better. Majority of the learners were able to link how Science and Technology can lead to modernisation of society.

This section of the research became important in a sense that the same topic - “Science and Technology” is taught in Social Studies at the senior high schools in Ghana. It is presumed that the university students might have gone through the concept at that level. The enigma has been why many of the students were not in tune with the concepts and as such were not able to perform better in the pre-instructional section.

Probing further on their weaknesses students had reasons for their poor performance through the interviews. The notable among the factors given were: It was not done in an in-depth, practical-oriented approach and has been years since they were introduced to the topic in the senior high schools. This suggests that the way Social Studies is taught needs to get a makeover and be woven around relevant issues that will unearth positive behavioural change in learners. On this note, Eshun and Mensah (2013a:83) asserted that “Social Studies should be taught as a holistic subject, which should reflect behavioural change in students and not facts from other social sciences. Social Studies teachers should stress on teaching of skills more than the factual content”. The authors further stressed that, the main role of the Social Studies teacher is to emphasise the development of relevant knowledge, positive attitudes, value and problem solving skills of students. This calls for the need of harmonising all the Social Studies curricular documents with interactive and practical-oriented approaches to teaching and learning that will reflect problem solving. This will help students to retain concepts taught.

Ideal method / techniques / strategies to be used in teaching and learning

The main purpose for this section was to ascertain the ideal method / techniques / strategies students desired to be used in the teaching and learning of the course. The question two which is - *What are the ideal method / techniques / strategies to be used in teaching and learning?* was geared towards finding responses from the respondents with regard to the ideal teaching and learning processes to be carried out.

Majority of the students mainly suggested that the method of teaching and learning must be done or should be fused in activities with the students taking the centre stage. In this sense, they proposed that teaching and learning should be done in a purely hands-on and interactive way. Some of the ideal teaching and learning techniques students suggested to be used are brainstorming, role-playing, lecturing, lecturettes, simulation, discussion, debate, case study, critical incidents, among others. Teaching and learning techniques enumerated above are in consonance with the course outline designed. The course is to be facilitated through lectures, discussions, small group, brainstorming sessions, out-of-class activities and assignments.

Only a few number of students suggested lecturing to be the ideal technique of teaching. Probing further why they wrote the lecturing technique through an in-depth interview, they generally endorsed that, because of the huge class size and the likelihood of being able to exhaust the course content it become incumbent on teachers to resort to that. They also advocated for educational / field trip whereby they can intensify their observational, manipulative and investigative skills in the teaching and learning of Social Studies concepts. When asked why they said so. Most of the students interviewed said that, Social Studies topics taught in-doors and in abstraction from the course content or syllabus prevent learners from experiencing real life situations. This stifles learners from forming a permanent imprint in their

memory for easy recall of concepts taught in Social Studies. This implies that for learners to understand Social Studies content better they need to be exposed to teaching and learning materials, resource persons, and educational trips among other outdoor activities.

Also in support is the view that, interactive teaching and learning should be done in a more conscious way whereby favourable environment is created for students to talk without the fear of being victimised for not performing better by fellow students and the class teacher. Creating of enabling classroom atmosphere from the interviewees will help to provide teachers and learners with more information and deeper insight into what is happening around them. This increases the options teachers have as students are able to open up and interact with their peers and the class teacher. The above analogies go to support Cuthrell and Yates (2007) statement that Social Studies content should be in-depth with lessons and activities. This calls for the need for teachers to be abreast of how to incorporate out-of-door activities like field trip into their teaching in order to help learners develop some skills and become more comfortable when learning Social Studies. Field trip can be conceived to be a valuable method of instruction, providing students with important cognitive and affective benefits (Ajitoni & Salako, 2013). It is on this that, Ediger (2007:18) pithily concluded that each teacher should possess the philosophy in Social Studies which “provides guidance and direction in choosing objectives, learning activities, and assessment procedures.”

Prospects for the course

The purpose of this section was to explore the prospects of students during the course of study. The question three - *What were the prospects you were having in mind and whether there are being realised?* was geared towards finding responses from the respondents with regard to whether their prospects were met during the course of teaching and learning.

The common outcome from respondents during the teaching and learning was that there is the acquisition of more knowledge and skills from the concepts at the university level. This is because it is taught as a course of study for the whole semester, compared to the senior high school level which was taught as a topic within the subject Social Studies. This helps them to recognise the importance about the concepts. Students also demonstrate that the field trip embarked upon made teaching and learning lively. This sharpen their observational, manipulative and inquiry skills as they were connected to learning from the concrete objects from nature / natural and artificial environment.

Students came out that their prospects are being realised through the instructional stage. To them, learning the concepts, coupled with the delivery approach of prescribed participation by questioning, discussion and presentation of issues before the class, afforded them the opportunity to speak and think through issues before drawing conclusions. The interactive approach to teaching and learning prescribed in the instructional course questions answered by students was facilitated through questioning. This goes to confirm that “one of the major duties of a Social Studies teacher is to promote thought and inspire inquiry in students, and one effective way of doing this, is through proper questioning in the classroom” (Eshun & Mensah, 2013b:186). Calling for proper questioning, Caram and Davis (2005) emphasised that, when teachers’ questions are used correctly, it can enhance student learning by developing critical thinking skills, reinforce student understanding, correct student misunderstanding, provide feedback for students and enliven classroom discussions. This implies that teacher’s questions are of significant value for many instructional purposes, eliciting student reflection and challenging deeper student understanding and engagement in the classroom.

Challenges encountered by students during teaching and learning

This section was carved to discover the challenges students encountered during the teaching and learning of the course “Science, Modernisation and Technology”. Students came out that there were many assignments (citing - reading, individual and group presentation) task given by the lecturers as an academic challenge. Group of students said they were challenged to speak into presentation in class. Others also talked about the huge class size of over hundred students as a challenge as this stifled individual attention to be given to them. Students also complained of not able to take/make notes from the presentation slides prepared by the lecturers in the course of lecturing.

For the purpose of grading (continuous assessment) students were tasked to do group work, individual assignments and presentations. Majority of the students were not prepared for the individual presentation. To them, they will wish a leader of the group presents while they look on. Few of the students even absented themselves. When they were interviewed, the outcome was they find it difficult to speak before their peers as there is the possibility of being ridiculed with the slightest mistake. The large class was also seen as a major stifling factor to interactive teaching and learning.

On the practical teaching and learning of Social Studies, students complained of some concepts taught and learnt in abstraction. The reason is they were not introduced to many concrete and technological materials in the form of audio, visuals and audio-visuals to increase their observational, manipulative and investigative skills.

Strengths of the teacher and the learners

This section was aimed at ascertaining the strengths of the teacher and the learners for going through the course of study. This section was guided by this question - *what are the strengths of the teacher and the learners?* Most of the students said the presentation mode of teaching and learning was difficult. However, it has boosted their morale since there were tasked to do individual presentation after they had research into a concept. This was done by speaking through instead of reading through the write-up as most of the students were abreast of.

Most of the students alluded to the fact that the group assignment given to them to work on went a long way by helping each of the members in the group to participate by contributing to the task given. This, according to them, has equipped them with the needed confidence to stand before their peers any time such onerous opportunity is given to them in life.

Students indicated that many questions were asked during teaching and learning which compel individuals to talk thereby stirring their critical thinking and problem-solving abilities. Students held that the skills of asking questions help them to understand concepts taught since their questions were answered by their peers and the class teacher. This was supported by Vogler (2005) that, questions can monitor comprehension, help make connections to prior learning and can stimulate cognitive growth. Classroom teachers are aware that it is possible to transfer factual knowledge and conceptual understanding through the process of asking questions. In the view of Danielson (1996:47), “good and skilled classroom questions, when carefully crafted and framed engage students in a true exploration of the content and allow the students to exhibit their understanding of the concept taught”. This implies that it takes good questioning skills from teachers and learners to realise the positive outcome of a classroom activity carried out within an instructional period. This critically portrays that, the way questions are asked and

answered depicts the strengths and weaknesses of both the teacher and the learner.

Achievements from the course of study

The purpose of this section was to ascertain whether students' expectations were met for going through the course of study. This was essentially based on the course outline. Whether their expectations were met, many of the students attested to the fact that the educational / field trip embarked upon in the teaching and learning of the concepts "Science, Technology and Modernisation" in Social Studies helped them to conceptualise the themes learnt in the course better. Also the varied use of instructional techniques coupled with the use of ICT tools like the projector in teaching facilitated their learning.

Majority of the students were pleased with the method, techniques and strategies employed in the instructional process, however, they complained of the inability to achieve their full expectation of the recommended interactive approach to teaching and learning they earlier suggested in the pre-instructional course questions they answered. The abovementioned explains that for the introduction of Social Studies to live up to its expected ends, premium must be attached to the way its contents is packed, delivered and learnt. On this proposition, Aggarwal (1982:84) succinctly caution that "Social Studies more than any other subject demands well prepared conscious men and women of sound knowledge and training, whose personalities rank high among men."

CONCLUSIONS

It can be concluded that majority of the students were not resourceful in terms of researching for materials needed for the course of study. Students lack the skills of searching for relevant materials for the course content on - "Science, Technology and Modernisation". Students wished course materials were provided to them after the course outline specifying the contents to be covered were given to them.

There was a strong consensus among students that the ideal participatory teaching and learning method, techniques and strategies they suggested must be used were later precluded by them. Social Studies topics taught in-doors from the course content or syllabus prevent learners from experiencing real life situations. Out-of-door-activities (for example, educational/field trip) help learners to form permanent imprint of concepts taught in their memory. This helps students to have easy recall and decoding of facts, concepts and generalisations from the Social Studies curriculum.

There are evidential habit of memorisation and stuffing of academic materials for the sake of passing examinations because of the demands of high-stake tests. Learners understand Social Studies content better when there are exposed to educational trips among other outdoor activities.

It was also revealed that majority of students were not in tune with the purely interactive and participatory lesson delivery approach. Because there were not taking their assignments serious it became obvious that, they were not prepared to contribute to lessons; ask questions, respond to questions, and presents write-ups before the class with the fear of being ridiculed by their colleagues with the slightest mistake. Learners are able to own concepts taught when there are guided to take centre stage in the teaching and learning process.

Asking and answering of appropriate questions in the pre-instructional, instructional and post instructional stages of teaching and learning engage both the teacher and the learner in an interactive way that enhance effective feedback, develop critical thinking skills, challenges deeper understanding and correct misconceptions of concepts. The ways in which questions are asked and answered depict the strengths and weaknesses of the teacher and the learner in Social Studies lessons.

RECOMMENDATIONS

Based on the findings, the study recommended that favourable classroom atmosphere must be created, coupled with enforced cooperative teaching and learning techniques in lesson delivery in Social Studies to enhance participation of students. Skills of good questioning and prompt feedback should be adopted by teachers in Social Studies classroom. This will enable teachers to ask critical thinking and problem solving questions. Prompt feedback should be given to students to help them better their learning of concepts taught in Social Studies.

The introduction of Social Studies to live up to its expected ends, premium must be attached to the way its contents is packed, delivered and learnt. The way Social Studies is taught within the classroom confinement needs some makeover. Apart from imbuing in students the rightful ideals of life by using positive attitudinal approach in teaching, there is the need to make Social Studies a more practical subject by involving students in out-of-door activities like educational trips / field trips to build their observation, manipulative and inquiry skills. Introducing learners to concrete objects and scenarios will help avert rote learning observed in the today Social Studies classroom.

In order to ensure effective retention of concepts taught in Social Studies, students must be exposed to concrete and technological materials in the form of audio, visuals and audio-visuals to increase their observational, manipulative and investigative skills. Educational / field trip should be incorporated in the teaching of Social Studies, especially when teaching the concepts “Science and Technology”. This will help students to probe into issues concerning concepts in Social Studies and thereby increase their critical thinking and inquiry capabilities. The more they see and interact with objects, the more they will ask questions. This increases the practical teaching and learning of Social Studies.

In a breath, there seems to be development on what may be termed the reformists approach to teaching and learning of Social Studies that will result in retaining of concepts taught for good and remodelling of students in a rightful direction. Purely interactive approach to teaching and learning should be carried out by using cooperative / students-centred approaches and not solely by lecturing. Lecturing in Social Studies should be done with challenging questions to be answered by students; before, during and at the end of the lesson. This is in sync with the ultimate aim of Social Studies as a participatory-oriented and problem solving subject to develop students for critical thinking and quality improvement of life.

With the way forward, it was suggested that sometimes, professional or experienced resource person in the field of Science and Technology should be invited since there are well-versed in the area to come over to the school to talk on the concepts or discuss with students their experience. Places of scientific and technological interests should also be visited in the course

of teaching and learning of Science and Technology to give students the visual impression and experience of the concepts.

REFERENCES

- Ajitoni, S. O. & Salako, E. T. (2013). Effects of cooperative learning and field trip strategies on secondary school students' knowledge of and attitudes to multicultural concepts in social studies. *Journal of Education and Practice*, 4(22), 35-42.
- Ayaaba, D. A., Eshun, I. & Bordoh, A. (2014). Achieving the citizenship education goal of the social studies curriculum in Ghanaian senior high schools: Challenges and the way forward. *Open Science Journal of Education*, 2(6), 61-65.
- Bekoe, S. O., & Eshun, I. & Bordoh. (2013). Formative assessment techniques tutors use to assess teacher-trainees' learning in social studies in colleges of education in Ghana. *Research on Humanities and Social Sciences*, 3(4), 20-30.
- Bekoe, S. O., & Eshun, I. (2013a). Curriculum feuding and implementation challenges: The case of senior high school social studies in Ghana. *Journal of Education and Practice*, 4(5), 39-45.
- Bekoe, S. O., & Eshun, I. (2013b). Exploring social studies teachers' conceptions on nature and content of social studies in senior high schools in the Central Region of Ghana. *Research on Humanities and Social Sciences*, 3(5), 85-95.
- Bekoe, S. O., & Eshun, I. (2013c). Influence of the differences in social studies teachers' curriculum conceptions on curriculum implementation in senior high schools in Ghana: Implication for national curriculum policy. *Developing Country Studies*, 3(6), 105-113.
- Bekoe, S. O., Kankam, B., Ayaaba, D. A., Eshun, I. & Bordoh, A. (2014). Teacher-trainees' sense of efficacy in students' engagement, instructional practices and classroom management in social studies lessons. *American Journal of Psychology and Behavioral Sciences*, 1(6), 52-60.
- Bekoe, S. O., Quashigah, A. Y., Kankam, B., Eshun, I., & Bordoh, A. (2014). Sense of efficacy in implementing the basic school social studies curriculum in Ghana. *International Journal of Educational Research and Information Science*, 1(4), 53-61.
- Bordoh, A., Baassaw, T. K. & Eshun, I. (2013). Social Studies tutors' cognition in formative assessment in colleges of education in Ghana. *Developing Country Studies*, 3(11), 1-11.
- Borich, G. D. (2004). *Effective teaching methods* (5th ed.). Pearson Merrill: Practice Hall.
- Caram, C. A., & Davis, P. B. (2005). Inviting student engagement with questioning. *Kappa Delta Pi Record*, 22(6), 19-23.
- Cobbold, C., Kofie, S., Bordoh, A., & Eshun, I. (2015a). Functions and practices of curriculum supervision in senior high schools in the Assin North Municipality of Ghana. *American Journal of Social Sciences*, 3(4), 120-128.
- Cobbold, C., Kofie, S., Bordoh, A., & Eshun, I. (2015b). Perception of curriculum leaders and teachers on feedback and conditions essential for effective supervision in senior high schools. *International Journal of Educational Research and Information Science*, 2(2), 21-26.
- Croom, B., & Stair, K. (2005). Getting from q to a: Effective questioning for effective learning. *The Agricultural Education Magazine*, 78, 12-14.
- Cuthrell, K., & Yates, P. (2007). Making it all fit: Integration strategies for social studies and literacy. *The Delta Kappa Gamma Bulletin*, 73(4), 22-25.

- Danielson, C. (1996). *Enhancing professional practice: A framework for teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling, D. (2005). Improving minority student achievement by making cultural connections. *Middle Ground*, 36(5), 46-50.
- Ediger, M. (2007). Philosophy of social studies education. *Journal of Instructional Psychology*, 34(1), 18-21.
- Eshun, I. (2013). Appraisal of colleges of education social studies curriculum vis-à-vis the junior high school social studies curriculum implementation in Ghana. *Journal of Education and Practice*, 4(1), 12-18.
- Eshun, I., & Mensah, M. F. (2013a). Investigation of pedagogical content knowledge of graduate social studies teachers in senior high schools in the Western Region of Ghana. *Journal of Education and Practice*, 4(4), 176-184.
- Eshun, I., & Mensah, M. F. (2013b). Domain of educational objectives social studies teachers' questions emphasise in senior high schools in Ghana. *Journal of Education and Practice*, 4(4), 185-196.
- Eshun, I., Bordoh, A., & Kofie, S. (2015). Perceived scope and approaches of curriculum supervision. *American Journal of Psychology and Behavioural Sciences*, 2(4), 146-151.
- Eshun, I., Bordoh, A., Bassaw, T. K., & Mensah, M. F. (2014). Evaluation of social studies students' learning using formative assessment in selected colleges of education in Ghana. *British Journal of Education*, 2(1), 39-48.
- Fisher, R. (1995). *Teaching children to think*. Cheltenham: Starney Thornes.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Kankam, B., Bekoe, S. O., Ayaaba, D. A., Bordoh, A., & Eshun, I. (2014). Curriculum conceptions of the scope of content of social studies in the colleges of education in Ghana. *American Journal of Social Sciences*, 2(6), 137-144.
- Latham, A. (1997). Asking students the right questions. *Educational Leadership*, 54(6), 84-65.
- Ornstein, A. C., & Lasley, T. J. (2000). *Strategies for effective teaching* (3rd ed.). Boston: McGraw Hill Higher Education.
- Quashigah, A. Y., Attom, L. E., & Eshun, I. (2017). *Science, technology and modernisation in social studies*. Yamens Press Ltd: Accra.
- Quashigah, A. Y., Dake, Y. G., Bekoe, S. O., Eshun, I., & Bordoh, A. (2014). 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*, 1(2), 1-13.
- Quashigah, A. Y., Eshun, I., & Mensah, M. F. (2013). Influences of the pedagogical content knowledge of graduate social studies teachers on questions they set in senior high schools in Ghana. *Research on Humanities and Social Sciences*, 3(6), 76-86.
- Quashigah, A. Y., Kankam, B., Bekoe, S. O., Eshun, I., & Bordoh, A. (2015a). Mentees' social studies curriculum conceptions and their classroom practices in the junior high schools (JHSs) in Ghana. *American Journal of Educational Research*, 1(3), 69-78.
- Quashigah, A. Y., Kankam, B., Bekoe, S. O., Eshun, I., & Bordoh, A. (2015b). Teacher-trainees' varying curriculum conceptions of social studies in the colleges of education (CoE) in Ghana. *American Journal of Social Science Research*, 1(3), 125-135.
- Ramaprasad, A. (1983). On the definition of feedback. *Behavioural Science*, 28(1), 4-13.
- Tan, Z. (2007). Questions in Chinese University EL classrooms: What lies beyond it? *RELC*, 38(1), 87-103.

- Udosen, A. E., & Jude, W. I. (2014). Teacher educators' knowledge and use of feedback in tertiary institutions in Akwa Ibom State, Nigeria. *Asian Journal of Management Sciences and Education*, 3(2), 146-160.
- Vogler, K. E. (2005). Improve your verbal questioning. *The Clearing House*, 79 (2), 98-103.
- Wiggins, G. (2012). Seven keys to effective feedback. *Educational Leadership*, 70(1), 10-16.