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Relationship between Social Studies and Science Teachers' Perception about Integrated Curriculum in Colleges of Education in Ghana

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Abstract:

The study sought to determine the relationship of the perception of Social Studies and Science tutors in the Colleges of Education in Ghana. Many educators have perceived the necessity for a paradigm shift toward interdisciplinary teaching. Knowledge today is becoming more interdisciplinary and integrated, which calls for interdisciplinary and integrated learning in public schools. The main purpose of the study is to explore the relationship of the perception of tutors of science and social studies in integrated curriculum approach to the teaching of Social Studies and Science in the Colleges of Education in the Central region. The study employed the descriptive survey, which is non-experimental. The targeted population for the study was all Social Studies and Science educators in the Colleges of Education in the Central Region. Questionnaire was the main instrument used for data collection and the result from the study indicated that there is positive strong relationship between Social Studies and Science teachers' perception about integrated curriculum in teaching Social Studies with Science. The study recommended that for effective interdisciplinary study of any kind there must be strategies that ought to drive home the desired outcome. And such strategies must endeavour to place the student at the center of the learning process.

Keywords: Relationship, perception, students, social studies, science, interdisciplinary study

1. Introduction

Education is a way society trains its individuals to fit into that society. The learner is therefore at the centre of the educational process and as such all activities in the school should aim at developing the learner's total personality to the fullest. Education is more than fostering understanding and an appreciation of emotions and feelings. Above that, it is also concerned with change 'with how people can act with understanding and sensitivity to improve their lives and those of others' (Smith, 2015, p.104). The knowledge and understanding and general objective of Social Studies in the school curriculum is considered an important area of learning to the school programme. Social Studies is one of the right vehicles to convey to the child a sense of heritage of society from the past.

In the opinion of Martorella, (1994) "we believe that the basic purpose of Social Studies is to develop reflective, competent and concerned citizens" (p. 26). Reflective individuals are critical thinkers who make decisions and solve problems on the best evidence available. Social Studies can be defined as educating children, from early childhood, to become clear-thinking and enlightened citizens who participate in decisions concerning society. 'Society' here, is understood in the special sense of a nation with a circumscribed territory which is recognized as a state (Martorella, 1994). Social Studies instruction at all levels of education, is essential for students to become active and responsible citizens in a diverse, interdependent, and democratic society. It appears that teachers will be unsuccessful in preparing effective citizens if Social Studies instruction is neglected at all levels (Benson, 2000). The adoption of integrated curriculum that exposes students to real understanding instead of the mere accumulation of facts, ideas, and information is what the Ghanaian student teacher needs; this methodology does not encourage learning by rote, the phenomenon of chew, pour, pass and forget. The problems of today are of multidimensional nature, hence cannot be categorized under subject compartments. This study is premised on the notion that all subjects are important and none should be neglected; and the general education classroom can be best described as a place for learning with inclusion as the focus. Essential is the need for integrating Social Studies with the teaching of Science and vice versa to enhance inquiry, problem-solving, interest, critical thinking skills, and learning (Virtue, Wilson & Ingram, 2009).

On the time table of Ghanaian public schools, Science features prominently and Social Studies is given less attention. By truly integrating other content areas within the realms of Social Studies, teachers might help solve many problems of society (Honey, 2011). Integration would also give students opportunities to see how Social Studies concepts fit into the entirety of human experiences with the Sciences (Cannon, Klein, Kaste & Magal, 2002). Honey, (2011) cautioned that it is time to acknowledge that there has been an unprecedented and precipitous decline in the number of times Social Studies is taught. It is, therefore, the hope of the researchers that every means necessary should be used to teach Social

Studies content to students and a good way to do this is to integrate it with Science due to its nature as well as great emphasis placed on the subject in the curriculum.

2. Theoretical Framework

The paradigm that drove this research study was the constructivist theory of learning. Constructivism, a psychological theory, stems from the work of Piaget in the field of cognitive science prior to his death in 1980 (Ackermann & Mitsakos, 2001). Psychologists recognize constructivism as a powerful framework for how adults learn and construct their own knowledge (Creswell, 2013; Danielson, 2007; Ravitch, 2016; Rebore, 2015). Constructivism is based on the premise that adult learners construct knowledge structures in their mind in a nonlinear fashion. Through hands on explorations participants develop deep conceptual understandings. Knowledge is created through interaction with the world, people and things (Ackermann & Mitsakos, 2001), and this can be done when the relationship between Social Studies and the Sciences are established. Thus, the study seeks to; (1) ascertain the relationship between Social Studies and Science tutor's perception about integrated study of Science and Social Studies (2) assess the relevance of integration of Social Studies with the teaching of Science in the Colleges of Education in Ghana. This study addresses the problem of neglect, exemption and restriction in pursuit of Social Studies. With the integration of Social Studies with the teaching of Science to ensure uniformity in the way teacher trainees are trained in the Colleges of Education. The constructivist learning theory suggests that learning is contextual. Individuals do not learn based on isolated facts. Instead, individuals learn in relationship to what is already known, that is, prior knowledge (Richardson, 2003).

Statement of the Problem

It has been realized that integrated curriculum is the current paradigm the world is going. Thus for any effective interdisciplinary study of any kind, there must be strategies that must to drive home the desired outcome. Although integrated curriculum is an approach to instruction in many parts of the world, it has not been adopted in Ghana. For any meaningful instruction in line with integrated curriculum so much has to do with teachers of the disciplines' perception. Thus, the study sought to determine the perception of teachers as far as integrated curriculum is concerned as well as the relevance of the approach. Social studies and Science are disciplines designed with a focus on the problems of society, how those problems are to be solved as well as how these problems affect the survival and wellbeing of the individual and their development. Restructuring of the country's educational curriculum to be integrated and designed in a way that would focus on problems and issues that are connected with real situations as well as providing continued support and professional development opportunities for teachers would be the catalyst to help future educators understand the craft of integration and problems of society (Koch, 2014). Teaching has become an increasingly more complex undertaking, because of the considerable amount of educational restructuring; numerous innovations have surfaced including integrated curriculum. To lighten some of the fragmentation in the knowledge to be acquired by students, and experiences to be gained by teachers, holistic and integrated curriculums are being proposed and adopted by many school districts in the U.S which is a major driving force behind integrated teaching and learning. It is the belief that when themes, subjects, or projects are combined, students begin to see meaningful connections between the different disciplines (Vars, 1991). Kain (1993) found out that many students felt that integrated curricula were more relevant to the real world, due to real world problems of the interdisciplinary nature, and this increased both their learning and motivation. Thus, the problem of neglect, restriction and exemption of some students from the study of any discipline can be best tackled by the integrated approach of teaching, hence the need for the current study.

3. Research Hypothesis/Questions

The following hypothesis/research question channeled the study:

3.1. Research Hypothesis

There is no relationship between Social Studies and Science teachers' perception about integrated curriculum in teaching Social Studies with Science

3.2. Research Question

- What is the relevance of integration of Social Studies with the teaching of Science?

4. Literature Review

The current trend in Social Studies education is concerned about the relationships of science and technology to human societies in the past, present and future. The National Council for Social Studies and the Social Science Education Consortium, for example, have sponsored activities and publications to bring about improvement in teaching and learning about science and technology as powerful shapers of our modern world. Other advocates of education about science and technology in society include the National Science Teachers Association, Carnegie Foundation for the Advancement of Teaching, American Association for the Advancement of Science and the National Endowment for the Humanities. Given the advocacy of national leaders, there appears to be a movement to infuse science- and technology-related topics and issues into the curricula of elementary and secondary schools. There is little evidence however; of widespread classroom adoption of content about science/technology/society Education on STS involves, first of all, consideration of the various interactions of science and technology in a social context. Science and technology affect and are affected by the institutions and values of a society. The following examples of major STS themes suggest the compatibility of teaching and learning about science/technology/society with education in the Social Studies (Bybee, Faith, Hackman & Patrick, 2006).

The concept of Social Studies is of recent origin. Social Studies originated and developed as part of the school curriculum in the United Kingdom in the early nineteenth century and subsequently to the United States in the early twentieth century. Saxe (1991) contends that the Social Studies "had its own set of unique beginnings" and did not originate, as many writers argue, "with the examination of the development of History as a field of study in the nineteenth century and its extension into the twentieth century". He asserts that the "foundations" of Social Studies originated in Great Britain during the 1820s and quickly moved to the United States.

Social Studies emerged as an attempt to use education as a vehicle to promote social welfare, and its subsequent development was influenced both by Americans and others. The wide spread use of Social Studies started in America way back in 1916. The year 1783 marked the end of the American Revolution and set the country on its path as the "United" States of America. According to Barth (1983), Social Studies builds around four capacities and this is given credence by Banks (1990); Parker and Jarolimek (1997); Martorella (2001) and NCSS (2006). These four capacities are acquisition of knowledge, acquisition of skills, development of desirable attitudes and values and civic participation. Each capacity uniquely leads to responsible citizenship as they mirror the essential ingredient that characterizes sound Social Studies education.

Humans are curious by nature. This curiosity has driven them since time immemorial to explore the world around them. Initially, the pace of exploration was slow but the availability of better tools of exploration in the last few hundred years and also as a result of industrial revolution in the West, the pace of exploration increased manifold. The role of Science in the life of humanity cannot be over looked or even pushed under the carpet. This is because the development and growth of any country depend on the skills that the citizens have acquired in Science and how meaningfully the citizens apply the scientific skills that they have acquired in finding solution to their societal problem.

Science is defined in several ways by different individuals. According to Fitzpatrick (2004), Science is a cumulative endless series of empirical observations which result in the formation of concepts and theories with both concepts and theories being subject to modification in the light of further empirical observations. Science is both a body of knowledge and the process of acquiring it. To Skinner (1981), Science is first of all a set of attitudes. It is disposition to deal with facts rather than with what someone has said about them. From the various definitions, the three-fold nature of Science is explained as:

- Science is a body of knowledge
- Way of investigating and a method of inquiry
- Science is an attitude towards life: a way of thinking.

The fields of Science are commonly classified along two major lines:

- Natural Sciences, the study of the natural world, and
- Social Sciences, the systematic study of human behavior and society.

Science is generally understood as an endeavor to understand, explain and predict the world we live in using distinctive methods of enquiry in an attempt to construct theories. There are a number of similarities between the Natural and Social Sciences, which include the use of similar methods and partly overlapping epistemological and ontological stances, i.e. stances regarding the creation of knowledge and the nature of reality. However, there are also a number of elements that distinguish the two, such as their different origins, subjects of study, and limitations.

Among the many branches of Science, the Natural and the Social Sciences stand out as two branches with disciplines that have some similarities, but differ strongly, above all, in what they aim to investigate (Dewey, 2008). Studies of the Natural Sciences began during the 16th and 17th century, whereas the Social Sciences emerged some 300 years later. Commonalities include a number of methods such as experiments and observations, where quantitative methods can be applied for analyses. However, being concerned with the underlying meaning of social interactions, the Social Sciences rely not only on what might be called exact, mathematical methods, but also on a number of qualitative approaches such as interviews and ethnographies. Both branches of Science have limitations that can be similar in nature, e.g., financial issues. Most limitations of the two are another point where they differ starkly. While the Natural Sciences often face technical boundaries, the Social Sciences experience difficulties as they study situations in which environments cannot be controlled easily, which often render experimental settings impossible and leaves scientists relying on interpretations. Additionally, ethical issues play a much larger role in the Social Sciences.

Social Studies teachers often teach in isolation from the other content areas, but cross-curricular content helps students see the connection between class work and their everyday lives. Science and Social Studies content often overlaps; for instance, when addressing standards around human impact on the environment or the impact of weather patterns and geological events on people. How do governments and people prepare for these events? How does policy affect our planet? How can drought lead to conflict? The possibilities are endless Social Studies instruction should challenge students to think about the events that have made our world the way it is: the lessons should be so engaging and interactive that no child could ever find it boring (Patrick, 2007).

Societies of our modern world are increasingly propelled and changed by advances in science and technology, which generate critical public issues. These issues pertain to such matters as the technical efficiency and public safety of nuclear power plants, the hazards of recombinant DNA research and genetic engineering, and the perils posed by modern weapons. A study by Bybee et al., (2006) indicates that science educators perceive the most important STS problem in our world to be world-wide hunger, unchecked population growth, declining air quality, depletion of water resources, and the destructive capacity of modern weapons systems (STS). The processes and skills in thinking about critical public issues associated with Science and Technology. Education about STS issues involves development of higher-order cognitive abilities associated with processes of decision making, problem solving, and critical thinking. Students who confront

science- and technology-related social issues have opportunities to inquire about alternatives and their consequences in the process of making rational and defensible choices. Ability to connect information and ideas within and between academic disciplines and to link different fields of knowledge is a key to high-level understanding of social reality. Education for responsible and competent citizenship in an increasingly complex technological society requires that students be able to synthesize and apply knowledge from many disciplines. Most topics in the Social Studies can be basically connected to content on science and technology in society. To ignore this reality will limit students' abilities to comprehend their world and to act effectively within it. Thus, content on STS must be connected to the study of Geography, Economics, Political Science, History, and other subjects in the Social Studies curriculum to help students make connections among facts and ideas needed for responsible citizenship in today's world.

A person's perception is his or her ability to notice and understand things that are not obvious to other people. Perception may be defined from physical, psychological and physiological perspectives. However, for the purpose of this study, it would be limited within the scope postulated by Allport (1996), which is the way we judge or evaluate others. Meaning individuals evaluate people with whom they are familiar in everyday life. Eggen and Kauchak (2001) gave cognitive dimension of perception; they see perception as the process by which people attach meaning to experiences. They explained that after people attend certain stimuli in their sensory memories, processing continues with perception. According to Davis (2010), perception is valuable because it influences the information that enters a working memory. Background knowledge in the form of schemas affects perception and subsequent learning. Glover, Ronning and Bruning (1990), were of the view that research findings have corroborated this claim that background knowledge resulting from experience strongly influence perception. Baron and Byrne (1997) called it 'social perception' which is the process through which we attempt to understand other people.

A study conducted by McQuitty (2016) on perception of Science teachers regarding the integration of Science into the Social Studies education curriculum has revealed that many Science teachers hold positive attitudes toward the integration of Science into the Social Studies education curriculum. Many Science teachers believe that Social Studies plays a big role in Science. Scientists are historical figures, and their contributions are significant to Science in many ways; for example, astronomers who discovered how the earth fits into our solar system and Thomas Edison's many inventions that advanced both science and humanity. Geography and the study of natural resources and land forms are closely tied and can be taught together as well. Science holds many possibilities for learning Social Studies. He recommended that Social Studies must be the easiest subject to integrate since it pertains to practically everything that we do in life. Some of the important aspects in Social Studies do in fact tie in with other subjects well, but some topics are taught better when the focus can be solely on that topic.

Integrated learning refers to education that is organized in such a way that it cuts across subject-matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of the study. It views learning and teaching in holistic way and reflects the real world, which is interactive (Shoemaker, 1989, p. 5). Jacob on the other hand, defines integrated or interdisciplinary as "a knowledge view and curricular approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue problem, topic, or experience" (1989, p. 8). Beane (1997) saw integration as a way to teach students that attempts to break down the barriers between subjects and make learning more meaningful to students. The idea is to teach around themes or organizing centers that student can identify with, such as the 'The Environment', 'life in school', or more traditional areas like 'Myths and Legends' (p. 13-14).

The main purpose of an integrated curriculum is to have a student-centered curriculum that engages students, improves student learning, and increases student interest. Higher-order thinking skills, cooperative learning, and consideration of other students' values are emphasized. Students collaborate with teachers to make lessons that address social issues and students' concerns (Vars, 2001). An integrated curriculum allows students the opportunity to notice the meaning and purpose in the material they are learning. Students also gain a deeper understanding of the material (Watkins & Kritsonis, 2011). According to Mustafa (2011), an integrated curriculum prepares children for lifelong learning. Students can link their experiences in the classroom to the real world and make sense of experiences from their lives. Integrating the curriculum is an incredibly important issue in the field of education. As mentioned by Campbell and Henning (2010), knowledge today is becoming more interdisciplinary and integrated, which calls for more interdisciplinary and integrated learning in public schools. Teachers are continually looking for ways to engage their students and deepen their understanding of the content. Integrating the curriculum is one way to accomplish that goal. According to Bialach, Bolak, and Dunphy (2005). When students get the opportunity to discover new knowledge and apply that knowledge, they are more likely to succeed on studies on integration.

5. Methodology

The study adopted the descriptive survey, which is non-experimental as the study's methodology. Such design was chosen because it provides a clear definition of the problems to be solved or the questions to be answered. The targeted population for the study was all Social Studies and Science educators in the Colleges of Education in the Central Region. The researcher decided to use the entire 30 tutor population of Social Studies and Science from within the three Colleges of Education in the Central Region because the number was not too large to take a sample of it; hence census approach was applied here. The questionnaire was self-designed through expert judgment. The reliability of the questionnaire was determined through the use of Cronbach Alpha method. Cronbach Alpha reliability co-efficient showing internal consistency of the items on the questionnaire for the tutors was computed to be 0.89. This was deemed good based on Fraenkel and Wallen (2000) view that if the reliability co-efficient value is .70 and above then the instrument is reliable

and of good quality for collecting data for study. The instrument used had open-ended as well as closed-ended items. The closed-ended items have responses from which respondents were required to choose from according to the one they strongly agreed, agreed, strongly disagreed or disagreed with. The open-ended items had spaces provided for respondents to provide additional comments. The questionnaires were collected after they were duly completed.

Pearson correlation was used to test the hypothesis one. This was used to determine whether there existed any relationship between Science and Social Studies tutors' perception about integrated study of Science and Social Studies. A correlation coefficient of $-1 < r < 0$ implied the two disciplines being dealt with are inversely related. A correlation coefficient of $0 < r < 1$ also implied a direct relationship exist between the two disciplines dealt with. A correlation coefficient of one ($r=1$) implied there is a relationship that exist between the two disciplines dealt with in the study. In addition to that, means and standard deviation were also used to discuss relevance of the use of integrated curriculum.

6. Results and Discussion

The objective of the study sought to explore the integrated curriculum approach in teaching Science and Social studies. The main issues the study addressed were to establish relationship between Science and Social Studies tutors' perception about integrated study of Science and Social Studies and the relevance of the use of integrated curriculum in teaching. The hypothesis "Relationship between Science and Social Studies tutors' perception about integrated study of Science and Social Studies" was tested.

This research hypothesis was meant to explore the relationship that exists between Social Studies and Science teachers' perception in the use of integrated curriculum in teaching Social Studies with Science. Relationship basically is the way in which two or more people or things are connected, or the state of being connected. To derive out this, Pearson Product Moment Correlation was used for the analysis. In the analysis, correlation (r) was used to determine the degree and the direction of a relationship between the variables (Social Studies teachers' perception and Science teachers' perception). Correlation coefficient (r) values from 0 to 0.39 indicated a low correlation between the variables, from 0.4 to 0.59 which indicates a moderate correlation between the variables and values from 0.6 to 1.0 indicates a strong correlation. The findings are presented in Table 1.

Variables		SSTP	STP	Remarks
SSTP	PPMC value (r)	1	.819**	Positive Strong Relationship
	Sig. (2-tailed)		.000	Significant
	R ²	.723		Strong R-Square
	N	30	30	Sample Size
STP	PPMC value (r)	.819**	1	Positive Strong Relationship
	Sig. (2-tailed)	.000		Significant
	R ²	.723		Strong R-Square
	N	30	30	Sample Size

Table 1: Relationship between Social Studies and Science Teachers' Perception About Integrated Curriculum in Teaching Social Studies with Science

Source: Field Data (2020) **. Correlation Is Significant at the 0.01 Level (2- Tailed)

Key: SSTP – Social Studies Tutors Perception

STP – Science Tutors Perception

PPMC – Pearson Product Moment Correlation

The results in Table 1 revealed that there was a statistically significant positive relationship between Social Studies and Science teachers' perception about integrated curriculum in teaching Social Studies with Science ($r=.819^{**}$, $r^2=.723$, $n=30$, $p=0.000$). In other words, the results give evidence that Social Studies and Science teachers' perception can positively influence integrated curriculum in teaching Social Studies with Science. The r-square statistic ($r^2=.723$) indicates the percentage of the variance in the dependent variable that the independent variables explain collectively. R-squared measures the strength of the relationship between model and the dependent variable on a convenient. The r^2 of the correlation is .723 which explains that 72 percent in correlation between Social Studies and Science teachers' perception about integrated curriculum in teaching Social Studies with Science. The r^2 suggests that the relationship is positively strong. Practically, the obtained result from PPMC computations means that apparently, there is higher Social Studies perception about integrated curriculum in teaching Social Studies with Science, likewise the Science teachers and viceversa.

These analyses substantiate the views of Lee (2004), on perception of Science teachers regarding the integration of Science into the Social Studies education curriculum which revealed that many Science teachers hold positive attitudes toward the integration of Science into the Social Studies education curriculum. Many Science teachers believe that Social Studies plays a big role in Science. Scientists are historical figures, and their contributions are significant to science in many ways; for example, astronomers who discovered how the earth fits into our solar system and Thomas Edison are many inventions that advanced both science and humanity. Geography and the study of natural resources and land forms are closely tied and can be taught together as well. Science holds many possibilities for learning Social Studies.

The research Question “The relevance of the use of integrated curriculum in teaching Social Studies with Science’ was analysed.

This research question was to assess the relevance of the use of integrated curriculum in teaching Social Studies with Science. Relevance is the concept that the information generated by a methodology or a system should impact the decision-making of someone perusing the information. The concept can involve the content of the information and/or its timeliness, both of which can impact decision making. Relevance is also the concept of one topic being connected to another topic in a way that makes it useful to consider the second topic when considering the first. The concept of relevance is studied in many different fields, including cognitive sciences, logic, and library and information science. To obtain results for this, means and standard deviations were used for the analysis.

Statements	TV=2.50		Skewness	MR
	M	Std. D		
Students tend to take ownership of their own Learning	3.95	.128	-.430	1st
Students make meaningful connections between different disciplines	3.87	.534	-.430	2nd
Integrated approach to teaching makes the curriculum more meaningful	3.78	.248	-.430	3rd
Integration answers many challenges with Reforms	3.73	.143	.283	4th
Integration is effective for development of multifaceted expertise	3.68	.246	.283	5th
Exposure of commonalities that exist between the two disciplines.	3.34	.234	-.889	6th
Integrated study supports the fact that the human brain does not separate Knowledge	3.32	.343	-.441	7th
Interdisciplinary nature of world’s problems makes integration relevant	3.04	.243	-.441	8th
Mean of Means/Std. D	3.58	.264		

Table 2: Results on the Relevance of the Use of Integrated Curriculum in Teaching Social Studies with Science
Source: Fieldsurvey, (2020) (N=30)

Key-M=Mean, Std. D, Standard Deviation, TV= Test Value, MR=Mean Rank

Table 2 shows the results on the relevance of the use of integrated curriculum in teaching Social Studies with Science in the Colleges of Education. The results show that, on the larger scale, integrated curriculum in teaching Social Studies with Science in the Colleges of Education is very significant and relevant. This was quite clear and substantial after the mean of means statistic produced from the response of the tutors was greater than the TV of 2.50.

Dwelling on the individual items, most of the tutors agreed that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, students turn to take ownership of their own learning (M=3.95 > 2.50, SD=.128, n=30). Again, the teachers pointed out that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, it helped students make meaningful connections between different disciplines (M=3.87 > 2.50, SD=.534, n=30).

Another relevance is that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, the approach makes the curriculum more meaningful (M=3.78 > 2.50, SD=.248, n=30). Moreover, the tutors believed that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, integration answers many challenges with curriculum reforms (M=3.73 > 2.50, SD=.143, n=30). Again, most of the tutors were of the view that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, Integration is effective for development of multifaceted expertise (M=3.68 > 2.50, SD=.246, n=30). This was again recounted when the teachers indicated that exposure of commonalities that exist between the two disciplines is manifested in any interdisciplinary study. (M=3.34 > 2.50, SD=.234, n=30). Integrated study supports the fact that the human brain does not separate Knowledge. This relevance of integrated approach was perceived by the teachers with (M=3.32 > 2.50, SD=.343, n=30). Finally, the tutors shared a common idea that in using integrated curriculum in teaching Social Studies with Science in the Colleges of Education, interdisciplinary nature of world’s problems makes integration relevant (M=3.04 > 2.50, SD=.243, n=30).

The analyses are therefore in line with the reiteration of Erlandson and Mcvittie (2001) who asked students their opinions about their integrated curriculum experiences in Language Arts and Social Studies. Students reported that they were able to make connections between content knowledge and real life experiences. They reported that their way of thinking had transformed, and they began linking knowledge from their lessons with their personal lives. The students also recognized that integrating the curriculum unified each discipline into a whole. Libler et al. (2010) conducted a survey concerning integrated curriculum. The results showed that some teachers integrated subjects because it saved time and was student centered. Students were able to obtain more knowledge and connect that knowledge to real life experiences and learning was more enjoyable and gratifying for the students and the teachers. The researchers concluded with three

reasons to integrate the curriculum: (1) teachers were better able to develop relationships with students, (2) learning was more enjoyable and relevant to the students' lives, and (3) the bridge linked traditional academic areas to students and the community.

7. Conclusions

With respect to integrating Social Studies into the teaching of Science in the Colleges of Education in Ghana, the study concluded that:

- There is positive relationship between Social Studies and Science teachers' perception of an integrated study of Science and Social Studies. The implication is that, implementation of any integrated curriculum study in the Colleges of Education in Ghana will be highly welcomed by college tutors.
- Since educators are charged with preparing students to be successful, this study provides curricula transformations to enhance students understanding in an educational setting. This study pursued outcomes that were not measured against a fixed set of criteria.
- There is significant relevance of the integrated curriculum to instruction as learners collaborate with teachers to make lessons that address social issues and students concerns.

The constructivist theory of learning, the underlying theory was for the research to emphasize that constructing meaning happens in the mind hence participants in any educational enterprise must be provided with what engages both minds and their hands.

8. Recommendations

Based on the findings and the conclusions drawn, the following recommendations have been made for policy and practice.

- The study revealed that there is positive strong relationship between Social Studies and Science teachers' perception about integrated curriculum in teaching social studies with science. The National Council for Curriculum and Assessment of the Ghana Education Service must conduct research into the use of integrated curriculum as it is the current paradigm the world is going and failing to comply, Ghana would be left behind.
- The study indicated that there is a positive relationship between Social Studies and Science tutors' perception of integrated curriculum which implies that implementers (teachers) must be abreast with appropriate child centred strategies. The Ghana Education Service and National Council for Tertiary Education must constantly sharpen teachers' pedagogical skills on strategies that place the student at the center of the learning process.
- Results from the study indicated that integrated curriculum approach to instruction in the Colleges of Education aid students collaborate with teachers to make lessons that address social issues and students concerns. Therefore, teachers should be given adequate training by the National Council for Tertiary Education to enhance their effectiveness.

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