

**UNIVERSITY OF EDUCATION, WINNEBA**



**IMPACT OF MULTIMEDIA INTEGRATION ON LEARNING  
OUTCOMES IN SELECTED COLLEGES OF EDUCATION IN THE  
EASTERN REGION OF GHANA**



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OUTCOMES IN SELECTED COLLEGES OF EDUCATION IN THE  
EASTERN REGION OF GHANA**



**A thesis submitted to the School of Graduate Studies in partial fulfilment  
of the requirements for the award of the degree of  
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**Department of Social Studies  
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## DECLARATION

### Student's Declaration

I, Doreen Oparebea Odei, declare that this Thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work, and that it has not been submitted, either in part or whole, for another degree elsewhere.

**Signature**.....

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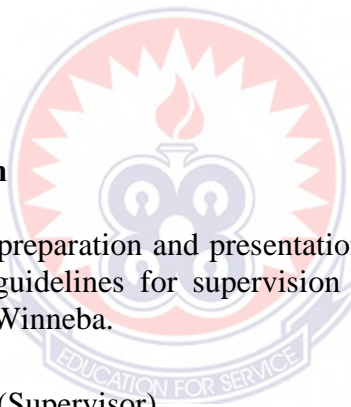
### Supervisor's Declaration

I hereby declare that the preparation and presentation of this Thesis were supervised in accordance with the guidelines for supervision of Thesis as laid down by the University of Education, Winneba.

**Name:** Prof. Isaac Eshun (Supervisor)

**Signature**.....

**Date:** .....



## **DEDICATION**

I dedicate this Thesis to my Siblings Awo Adwo Apea-Korama I, Abusuapanyin Paul Agyiri Odei and Mr. Benjamin Oti Odei and to our Late Mother, Madam Emma Sarkodee-Adoo.



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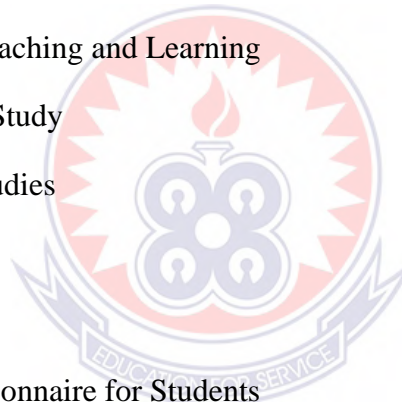


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## ABSTRACT

This study examined the integration of multimedia resources within Social Studies instruction in Colleges of Education across the Eastern Region of Ghana. Through a pragmatic research paradigm that acknowledges the multifaceted nature of educational research, the study employs a mixed-methods approach to comprehensively assess student and tutor perceptions and the resultant learning outcomes. Drawing upon a sample of fifteen Social Studies Tutors for the qualitative research and 300 students from selected institutions for the quantitative study. The data for the qualitative research were analysed thematically whilst the data from the quantitative study were analysed using inferential statistics. Findings reveal a prevailing sense of disagreement or uncertainty among students regarding the frequency of exposure to multimedia resources, indicating an underutilisation of such resources in their Social Studies Education. Similarly, tutors express uncertainty regarding the integration and frequency of use of multimedia resources, although there is general agreement on the value of these tools in enhancing instruction. Traditional multimedia tools such as slides and projectors are commonly used, but there is a lack of consensus on the utilisation of other resources. However, both groups acknowledged the positive influence of multimedia on learning outcomes, citing enhanced understanding, engagement and motivation. Moreover, the study revealed critical barriers hindering the full realisation of multimedia's potential, including limited access to equipment, insufficient training, technical issues, time constraints and curriculum demands. Additionally, internal barriers such as resistance to change among tutors and limited appreciation of the benefits of multimedia integration were noted. The study recommends strategic interventions, including improving access to equipment, providing comprehensive training programmes and fostering a culture of innovation, to overcome existing challenges and optimise multimedia integration in Social Studies Education.

**Keywords:** Ghana, Motivation, Multimedia, Time Pressure, Uncertainty, Qualitative Research, Curriculum, Students

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Like every other human endeavour, education has been significantly influenced by rapid technological advances. As Dumpit and Fernandez (2017) suggested, it is now impossible to dissociate education from technology. The need for technological integration in education is paramount, with a particular emphasis on applying multimedia resources to enhance teaching and learning experiences globally. These innovative resources increasingly replace traditional pedagogical methodologies, driving a more cohesive educational process (Thamarana, 2015; Atubi, 2021).

The term “multimedia” encompasses various media types - texts, films, audio and still images. In an educational setting, it pertains to technologies used for generating, storing and presenting educational content. Tools range from conventional ones, such as books and chalkboard lectures to more technologically advanced ones, including video projectors, digital video cameras and integrated audio-visual systems (De Sousa et al., 2017). Multimedia resources, essentially interactive, computer-driven communication platforms, disseminate information in various formats - text, graphs, audio, images, or video. Their application in education is becoming increasingly prevalent, providing self-paced, efficient lessons and promoting student-led learning (De Sousa et al., 2017; Odunta, 2011).

Social Studies, often perceived as a branch of Citizenship Education, necessitate integrating multimedia resources to prepare learners for global participation. This puts a substantial onus on educators in Colleges of Education (COE) to utilise multimedia in delivering effective and engaging learning environments.

Therefore, it is vital to assess the implementation of multimedia resources in Social Studies Education (Vagg et al., 2020). Conventional pedagogical strategies have shown a discord between academic instruction and the skills society and industry demand. Recognizing the importance of Multimedia Resources, particularly in developed nations' research organisations and higher education institutions, it is crucial to facilitate their practical application in teaching Social Studies (Atubi, 2021; Sousa et al., 2017).

The influence of the digital revolution, particularly the shift towards modern multimedia technology - the internet, slides, computer software, animations, and motion pictures - is increasingly felt in educational sectors worldwide. Countries such as Canada, the USA, Britain, Germany, Japan, and China have leveraged these resources for widespread education, especially during critical situations like the COVID-19 pandemic (Atubi & Obro, 2020).

With their ability to create interactive resources that boost learning rates, Multimedia Resources also help educators identify individual learners' unique learning styles to tailor suitable teaching methods (Thamarana, 2015). As such, it is imperative for Social Studies educators in the 21st century to acknowledge and utilize these contemporary teaching resources, ensuring the delivery of relevant and accurate learning content (Ediyang & Effiom, 2017).

According to Ogunbote and Adesoye (2006), multimedia technology brings a new perspective to learning chances since concepts are simpler to transmit and absorb when accompanied by images and animations. Furthermore, when a variety of senses affects knowledge, learners remember more; the complexity of the relationship increases memory retention and recall by stimulating social, emotional, and

intellectual senses. Ubogu (2006) endorses that Multimedia Resources are facilitators of everywhere, anytime education by breaking the distance barrier. The advancement of multimedia learning technology has created new learning opportunities in schools and at home. Suppose teachers have access to multimedia learning assets that facilitate constructive concept development. In that instance, they can focus more on being a facilitator of learning while interacting with individual students. Extending multimedia learning tools to the home may provide an educational opportunity to boost student learning (Mukherjee, 2018). Okedeyi et al. (2015) claimed that teachers' acquisition of multimedia abilities would increase the teaching and learning of scientific concepts, especially in upper primary schools.

Ogheneakoke (2019) investigated the efficacy of simulation games as a multimedia teaching technique. The discoveries confirm the position of other researchers that multimedia materials in any form enhance Social Studies Education. They also aid in fostering the grasping of information. Krutka and Carano (2016), quoted in Atubi (2021), established that video conferencing has excellent promise for Social Studies education and may make Social Studies students and educators become "world-class citizens."

The employment of multimedia technologies in connection to Information and Communication Technologies (ICT) has evolved into a global cross-cutting concern in educational circles. Cener et al., (2015) highlight how the Turkish government has emphasized adopting Information and Communication Technologies (ICT) and multimedia inside its educational system to increase effective teaching and learning. Similarly, in South Africa, for example, ICT and multimedia materials have been

integrated into the primary school curriculum as a policy for teachers to utilize in the art of the teaching process (De Sousa et al., 2017)

Consequently, according to the Ghana Ministry of Education's (MoE, 2017) working document on the National Teacher Education Curriculum Framework (NTECF), advances in digital technologies and information and communication technology (ICT) have piqued the interest of educators in considering their potential applications in the education sector. As a result, ICT is widely recognized as an essential tool for teacher and student learning (especially when partnered with interactive or student-centred strategies such as questioning/talking, group/pair work, and helpful feedback). The text acknowledges that teachers must fully integrate ICT into their teaching practices for learners to be wholly cognizant and have positive attitudes while obtaining the skills and knowledge required to become responsible and productive citizens. As a result, Social Studies as a discipline taught in Ghanaian schools has undergone various curricular revisions over the years. Until recently, the new Educational Reform Policy mandated that "Social Studies as a subject in school should be taught at the Junior High School (JHS) and Senior High School (SHS) as a core subject in Ghanaian schools," resulting in the subject being both an elective and a core subject in educational colleges.

Recognizing these dynamics in the National Educational Curriculum, the National Council for Curriculum and Assessment (NaCCA, 2020) has revised the Social Studies curriculum to improve the attainment of subject goals and objectives. The reform has underlined that for successful and engaging teaching and learning of Social Studies, the curriculum implementers must embrace unique pedagogical approaches in teaching. The Common Core Programme (CCP) emphasizes this

approach. The CCP emphasizes creative and inclusive pedagogies that are anchored on Authentic and Enquiry-based learning, Collaborative, and Cooperative learning, differentiated learning, and Holistic learning, Cross-Disciplinary Learning (that is, the 4Rs across the Curriculum) as well as developing the core competencies (NaCCA, 2020). For this objective, the researcher will limit the debate to one of the creative pedagogical techniques required for the Common Core Programme (CCP). Thus, Digital Literacy (DL) entails encouraging learners to find, gain skills in, and communicate using ICT to promote their learning and responsible use of digital media (NaCCA, 2020). The curriculum, therefore, emphasizes the: Creation of learning-centred classrooms through the use of creative approaches to ensure learner empowerment and independent learning; Positioning of inclusion and equity at the centre of quality teaching and learning; Use of differentiation and scaffolding as teaching and learning strategies for ensuring that no learner is left behind; Use of Information Communications Technology (ICT) as a pedagogical tool; Identification of subject-specific instructional expectations needed for making learning in the subject relevant to learners; Integration of Assessment As Learning, For Learning and Of Learning into the teaching and learning processes and as an accountability strategy; and questioning techniques that promote deep learning (NaCCA, 2020).

Utilizing multimedia resources for evaluating Social Studies concepts is an integral part of the Creative and Inclusive pedagogies outlined by NaCCA (2020). Given this context, it becomes crucial for Social Studies as an academic discipline in Ghana's Colleges of Education to incorporate multimedia resources in their teaching methodologies. Such integration can simplify the comprehension and application of concepts for learners groomed to teach these subjects in Junior High Schools across Ghana.

Despite this necessity, there appears to be an insufficient emphasis on developing and making multimedia resources readily available for assessing Social Studies concepts in various Ghanaian educational settings. Therefore, it is vital to conduct comprehensive investigations into the application of multimedia resources in teaching social studies at Ghana's Colleges of Education. This initiative can pave the way for better-equipped future educators and more engaged learners.

## **1.2 Statement of the Problem**

Recently, educational reforms in Ghana have significantly reshaped the discipline of Social Studies at both Basic and College of Education levels. Although Social Studies is now primarily taught at the Junior and Senior High School levels and specialised in Colleges, a shift in its relevancy has been observed. The subject appears to be losing its impact in fostering patriotism, informed awareness, and responsible citizenship (Acquah, 2021; Öztürk et al., 2016). Therefore, it is crucial and essential to prioritise the teaching and learning of social studies in Senior High Schools to achieve the desired objectives (Eshun et al., 2019). Incorporating multimedia resources into social studies instruction has increased student engagement and promoted a more profound comprehension of intricate concepts, rendering the subject more captivating and pertinent (Atubi, 2021; de Sousa et al., 2017).

As Akinoso et al. (2017) propose, merely having access to globally connected computers or integrating Information and Communication Technology (ICT) does not guarantee effective learning. They argue that the judicious use of these tools, especially in teaching subjects with conceptual complexities like Social Studies, is a crucial factor. Furthermore, Akinoso (2018) notes that with the world's rapid changes, education must adapt correspondingly as a key instrument for national development.

Improving Social Studies teaching and learning methods should be a priority for educational stakeholders, considering the discipline's societal benefits. The use of multimedia resources, with your active involvement, can substantially aid in this aspect.

Although educational technology research has seen considerable attention, studies exploring the experiences of Social Studies instructors and students, particularly in Ghanaian Colleges of Education, remain scarce. Existing studies have primarily focused on areas outside Ghana or disciplines apart from Social Studies (for example, de Sousa, 2017; Jarosievitz, 2015; Shah & Khan, 2015; Malik & Agarwal, 2012). Research by Nyagorme et al. (2017) provided a broad overview of multimedia resource usage and students' academic performance in Ghanaian Colleges of Education. Nevertheless, it did not focus explicitly on Social Studies. These investigations typically adopt a qualitative or quantitative approach, leaving a gap in understanding whether Social Studies tutors in Ghanaian Colleges of Education effectively utilise multimedia resources.

Therefore, it was essential to undertake additional research to evaluate the validity of these claims. Consequently, this study employed a mixed-method approach to investigate the perceptions and impacts of utilising multimedia resources in teaching Social Studies concepts, focusing on the viewpoints of both educators and students, particularly within the Colleges of Education in the Eastern Region of Ghana.

### **1.3 Purpose of the Study**

This study was intended to explore in-depth how tutors incorporate multimedia resources into Social Studies instruction within Colleges of Education (COE) in the Eastern Region of Ghana. It aimed to assess student perceptions towards this

integration and examine the subsequent impact on their learning outcomes. By analysing tutors' techniques and students' reactions, the study aimed to shed light on the overall efficacy of multimedia use in Social Studies education in these institutions.

#### **1.4 Objectives of the Study**

The following research objectives guided the study. The study aimed to;

1. Assess students' perceptions regarding the use of multimedia resources by tutors in Social Studies lessons
2. Examine tutors' perceptions on the integration of multimedia resources in Social Studies instruction in Colleges of Education in the Eastern Region of Ghana
3. Assess the effects of multimedia integration on students' learning outcomes in Social Studies in the Colleges of Education in the Eastern Region.
4. Ascertain the tutors' perceptions of the barriers to using multimedia resources in Social Studies instruction within Colleges of Education in the Eastern Region of Ghana.

#### **1.5 Research Questions**

The following questions guided the study:

1. How do students perceive the utilisation of multimedia resources by tutors in Social Studies lessons?
2. To what extent do tutors perceive the integration of multimedia resources in Social Studies instruction in the Colleges of Education in the Eastern Region of Ghana?

3. How does incorporating multimedia tools in instruction affect students' learning outcomes in Social Studies in Colleges of Education in the Eastern Region of Ghana?
4. What are the perceived barriers to successfully integrating multimedia resources among Social Studies tutors in Colleges of Education in the Eastern Region of Ghana?

### **1.6 Significance of the Study**

This study is essential to various stakeholders involved in the education sector, particularly in Ghana. Policymakers can use the findings to inform policies and enhance the integration of multimedia resources in Social Studies instruction. Educational administrators can utilise the insights to improve teacher training programs and curriculum development. Social Studies tutors will better understand effective multimedia integration strategies, while students can experience more engaging and enriching learning experiences. The study can potentially enhance students' learning experiences and outcomes in Social Studies. By examining how multimedia resources influence engagement and comprehension, students can benefit from more dynamic and interactive lessons that cater to diverse learning styles. This can increase motivation, a more profound understanding of concepts, and improve academic performance. Furthermore, this study will contribute to the existing literature on educational technology integration in Social Studies education, particularly within the Ghanaian context. It will be a valuable reference for future research endeavours, providing a foundation for further exploration and advancement in multimedia-enhanced teaching and learning practices.

### 1.7 Delimitation of the Study

The scope of this study was purposefully confined to three Colleges of Education in the designated study area, selected based on their engagement with the variables of interest for the investigation. The participant pool was also specifically restricted to Social Studies tutors and students from these three Colleges of Education. Furthermore, the study primarily aimed to understand the perceptions of these tutors and students regarding the usage and perceived impact of multimedia resources in assessing Social Studies concepts within the context of their Colleges of Education.

### 1.8 Operational Definition of Terms/Acronyms

- **Multimedia Resources:** In this study, multimedia resources refer to the combination of text, audio, images, animation, video, or interactive content used in teaching and learning. These can include tools like computers, projectors, internet resources, simulation games, video conferencing, and other digital devices or applications.
- **Social Studies:** This term refers to the integrated study of the social sciences and humanities to promote civic competence. In the context of this study, it is a subject taught in Ghana's Colleges of Education.
- **Colleges of Education (COE):** These tertiary institutions in Ghana train teachers to teach at various levels of education, particularly at the primary level. This study focuses on the COEs in the Eastern Region of Ghana.
- **Information and Communication Technology (ICT):** This term refers to all technologies used to handle telecommunications, broadcast media, intelligent building management systems, audio-visual processing and transmission systems, and network-based control and monitoring functions. This study relates to the teaching and learning of Social Studies in Ghana's Colleges of Education.

- **National Council for Curriculum and Assessment (NaCCA):** NaCCA is a national body in Ghana responsible for developing education curricula and assessing their outcomes.
- **National Teacher Education Curriculum Framework (NTECF):** This framework document provides guidelines for teacher education in Ghana.
- **Common Core Programme (CCP):** This section of Ghana's primary school curriculum outlines what learners should know and be able to do at the end of each grade from kindergarten to primary school.
- **Digital Literacy (DL)** refers to an individual's ability to find, evaluate, and compose clear information through writing and other media on various digital platforms. In the context of this study, it is used to refer to the ability of students and teachers to use ICT tools effectively in teaching and learning.

### **1.9 Organisation of the Study**

This study is structured into five distinct chapters. Chapter One provides an introduction to the research, presenting the background, problem statement, purpose, objectives, research questions, significance, delimitations, and the overall framework of the study.

Chapter Two offers a comprehensive literature review related to the topic of study. This encompasses the theoretical and conceptual frameworks supporting this research and a series of conceptual and empirical reviews designed to contextualise the study. The chapter concludes with a summary of the reviewed literature.

Chapter Three elaborates on the methodology utilised in the research process. It delineates the research paradigm and approach, research design, target population, sample size, sampling technique, data collection tools, and data gathering procedures.

Furthermore, it details the data analysis process, discusses the ethical considerations respected throughout the research, and acknowledges the study's limitations.

Chapter Four presents the results and findings derived from the study, offering an in-depth exploration of the data.

The final chapter, Chapter Five, concisely summarises the main findings, concludes these results, proposes recommendations based on the study, and suggests avenues for further research.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter extensively reviews pertinent literature related to the study's topic by critically examining academic articles, books, and other relevant publications, and a comprehensive understanding of the subject matter was developed. The discussion is framed within the study's theoretical and conceptual contexts to contextualize the findings better. The chapter is organised around the exploration of key themes, including the conceptual understanding of Social Studies and Multimedia Resources, their role and relevance in teaching and learning, the interrelationship between Multimedia resources and Social Studies instruction, the effectiveness of Multimedia resources in Teacher Education, and potential obstacles to the use of multimedia resources in education. These themes form the bedrock of the empirical and conceptual reviews, providing a comprehensive foundation for our study. The literature review was conducted with the following key themes in mind:

#### **2.1 Theoretical Perspective**

The theoretical framework guiding this study encompasses two main perspectives: the Cognitive Theory of Multimedia Learning proposed by Mayer (2001) and Resource-based Learning as articulated by Hannafin and Hill (2007).

##### **2.1.1 The Cognitive Theory of Multimedia Learning**

The cognitive theory of multimedia learning was popularized by the work of Richard E. Mayer and other cognitive researchers who argue that multimedia supports the way that the human brain learns. The cognitive theory of multimedia learning (CTML) is based on the concept that when students try to make meaningful connections between

words and visuals, they learn more profoundly than they might with only words or pictures (Mayer, 2009). The goal of multimedia instructional design is to employ cognitive research to integrate words and images in ways that improve learning effectiveness. One of the primary goals of multimedia instruction, according to CTML, is to assist the learner to construct a cohesive mental picture from the presented material. The learner's role as an active participant is to make sense of the presented material, ultimately building new knowledge (Clark et al 2016).

CTML is based on three assumptions, according to Mayer and Moreno (1998) and Mayer (2003): the dual-channel assumption, the restricted capacity assumption, and the active processing assumption. Mayer (2010a) argues that meaningful learning from words and pictures happens when the learner engages in five cognitive processes:

1. selecting relevant words for processing in verbal working memory
2. selecting relevant images for processing in visual working memory
3. organizing selected words into a verbal model
4. organising selected images into a pictorial model and
5. integrating the verbal and pictorial representations with each other and with prior knowledge.

These cognitive processes in working memory govern which information is attended to or selected, which knowledge is retrieved from long-term memory and integrated with incoming information to create new knowledge, and which bits of new knowledge are eventually transferred to long-term memory. According to the limited capacity assumption, there is a limit to the quantity of information that working memory can handle at one time. In other words, learning is impeded when cognitive

overload occurs when working memory capacity is exceeded. Mayer utilised this model to structure the cognitive theory of multimedia learning, noting that "managing required processing, decreasing unnecessary processing, and encouraging generative processing" is one of the major aims of multimedia learning and instruction. The model is based on Sweller's cognitive load theory. Because the principles of multimedia learning are seen as instructional methods whose major purpose is to facilitate meaningful learning, this theory places the study in the proper context. Its learner-centered and cognitive constructivist orientation makes it very relevant in this educational study. As a result, in order for meaningful learning to take place in the Social Studies classroom using multimedia resource, teachers must be guided by this theory. Clark et al, (2016) posit meaningful learning is demonstrated when the learner can apply what is presented in new situations, and students perform better on problem-solving transfer tests when they learn with words and pictures.

### **2.1.2 Resource-based Learning**

Resource-based learning is an instructional model that places students in an active role by engaging them with multiple information sources that are designed to support their learning. The emphasis in resource-based learning is not only on the knowledge acquisition but also on the development of critical thinking and problem-solving skills.

There are several key components that characterize resource-based learning:

1. **Diverse Learning Resources:** These can include textbooks, research articles, online resources, multimedia content, laboratory equipment, databases, archival materials, and more. The diversity of resources is critical as it allows students to explore a topic from multiple perspectives and supports different learning styles (Hannafin & Hill, 2007).

2. **Active Learning:** Students are not just passive recipients of information, but active learners who interact with learning resources. They are encouraged to question, investigate, and form their own understanding of the material (Alghamdi et al., 2020).
3. **Higher-Order Thinking Skills:** Resource-based learning promotes the development of higher-order thinking skills, such as analysis, evaluation, and synthesis of information. As students engage with different resources, they have to compare and contrast the information, draw conclusions, and make connections between different concepts (Mukherjee, 2018).
4. **Student Autonomy:** In resource-based learning, students take a more active role in their learning process. They are often given the flexibility to choose their learning resources and the direction of their study, fostering self-directed learning (Mukherjee, 2018).
5. **Real-World Connections:** Resource-based learning often involves authentic tasks that help students make connections between their learning and real-world situations. This enhances the relevance of learning and can lead to deeper understanding (Mukherjee, 2018).

### **2.1.3 Relevance of the theories**

The cognitive theory of multimedia learning (CTML) and resource-based learning (RBL) offer valuable insights into the potential benefits of integrating multimedia resources in Social Studies education. These theories provide theoretical frameworks that guide educators in understanding how multimedia can enhance learning experiences and support meaningful engagement with course materials.

The CTML, as expounded by Mayer (2001), focuses on how learners process information presented in multimedia formats. By leveraging CTML principles, educators can design multimedia presentations that optimize cognitive processing and minimize cognitive load. For instance, according to Mayer (2009), coherence, signalling, and redundancy are key design principles that can enhance learning outcomes. Coherence ensures that the presentation flows logically, signalling directs learners' attention to important information, and redundancy reinforces key concepts. By adhering to these principles, educators can create multimedia materials that promote deeper understanding and retention of Social Studies concepts.

Similarly, RBL emphasizes active student engagement with diverse learning resources to support knowledge acquisition and skill development. According to Hannafin and Hill (2007), RBL promotes critical thinking, problem-solving, and self-directed learning skills by encouraging students to interact with a variety of resources. By providing students with opportunities to explore topics from multiple perspectives and engage in inquiry-based learning, educators can foster a deeper understanding of Social Studies concepts and promote higher-order thinking skills. However, effective resource-based learning requires careful planning and guidance from the teacher. Teachers must ensure that the chosen resources are accurate, relevant, and appropriate for students' learning levels. They also need to guide students on how to use the resources effectively, how to critically evaluate information, and how to synthesize different sources of information (Hannafin & Hill, 2007).

#### **2.1.4 Application of the theories to the study**

In this study, the CTML and RBL theories will serve as guiding frameworks for the design and implementation of instructional strategies that integrate multimedia resources into Social Studies instruction. In this study, CTML principles will inform the analysis of participants' interactions with multimedia resources, focusing on aspects such as engagement, comprehension, and perceived effectiveness. By considering CTML principles, the study aims to understand how participants' (tutors) cognitive processes, such as selecting relevant information and integrating prior knowledge, are influenced by the use of multimedia resources in Social Studies instruction.

Resource-based Learning (RBL) underscores the role of active student engagement with diverse learning resources to support knowledge acquisition and skill development. Within the study's context, RBL principles will guide the examination of participants' autonomy in selecting and utilizing multimedia resources, as well as their engagement in inquiry-based learning activities. By analysing participants' experiences through the lens of RBL, the study seeks to explore how the integration of multimedia resources promotes critical thinking, problem-solving, and self-directed learning skills.

In summary, the application of CTML and RBL theories in this study will enrich the analysis of participants' perceptions and experiences with multimedia resources in Social Studies instruction. By considering these theoretical frameworks, the study aims to provide valuable insights into the effectiveness of multimedia integration in enhancing learning outcomes and promoting student engagement within the Ghanaian Colleges of Education context.

## 2.2 Concept of Social Studies

In an editorial published in the *Southern Workman* in 1905, Thomas Jesse Jones is credited with coining the phrase "Social Studies" to refer to educational disciplines (Tabachnick, 1991). The article was turned into a book, *Social Studies in the Hampton Curriculum*, in which Jones expressed concern that young African Americans and Native Americans "would never be able to become integral members of the broader society unless they learned to understand society, the social forces that operated within it, and ways to recognize and respond to social power" (Tabachnick, 1991, p. 725).

Social Studies as a subject was introduced in Africa in 1968 by British Social Studies educators at a conference in Mombasa, Kenya. One of the reasons for the adoption of Social Studies was to empower every school-aged child in Africa to fully comprehend interaction of people based on culture, social, and environmental factors (Meryfield & Mutebi, 1991). The National Education Association's 1916 Committee disclosed the conventional view of the origins of the contemporary Social Studies curriculum. They introduced the term "social studies," as well as the scope and sequence of subject that make up the contemporary curriculum. Various schools of thought have evolved to provide diverse definitions to the subject, according to Bordoh et al. (2015) but there has been an agreement that the subject Social Studies involves civic education. As countries strive for greater development and achievement, it is clear that the relevance of citizenship education, which provides as a foundation for all learners to grow their functionalities as successful learners, confident individuals, responsible people, and effective members of society, is critical and cannot be oversimplified (Eshun et al., 2019). The purpose of Social Studies is to train people who can make intelligent

decisions and successfully participate in the civic life of their local communities, nations, and the world.

Social Studies, as an integrated discipline, brings together the social sciences, especially at the primary level. The subject is interdisciplinary, relying on materials from geography, history, sociology, psychology, economics, and civic education. The key material and concepts of these disciplines are combined into a subject that can stand on its own. According to Kenzie (2017), Social Studies is considered interdisciplinary since it borrows concepts from many different disciplines and synchronizes them. There are also variances in how Social Studies are understood as citizenship education, with an emphasis on how current concerns are addressed.

Teachers' curriculum conceptions of Social Studies have grown urgent in the sense that Bekoe and Eshun (2013a) suggest that diverse styles of teaching Social Studies may impact students as to what the significance of Social Studies is, its contents, and why it is worthwhile to learn. According to Bekoe and Eshun (2013b), confusing arrays of conceptual viewpoints concerning the purpose, form, and contents of Social Studies exist, and cultivation of a clearer vision of the subject in Ghana has become highly vital. As a result, it is highly prudent and urgent that significant attention be paid to its teaching and learning in Junior and Senior High Schools in order to achieve the subject's desired objective (Eshun et al., 2019).

Under the 1987 Education Reform Programme, Social studies was reintroduced in teacher training institutions in 1988 as one of the elective disciplines to equip student to teach Social Studies in Junior Secondary Schools for the goals of citizenship. Thus, graduates of education colleges bear the burden of creating a solid basis in the educational careers of the children entrusted to their care. Social Studies was made a

core subject in the Junior High School in 1987, later in 1998 the subject was introduced in the Senior High School as a core subject. Social Studies at the Junior High School level is concerned with equipping the pupil with an integrated body of knowledge, skills and attitudes that will help the pupil develop a broader perspective of Ghana and the world. The integration is accomplished through the syllabus's three sections, each of which focuses on (1) the environment, (2) governance, politics, and stability, and (3) social and economic growth. This indicates that the subject must revolve around these three theme areas.

The Social Studies philosophy in Ghana envisaged that the curriculum would require learners to demonstrate competencies in making an appropriate and wholesome choices regarding their personal growth and well-being, while also promote the development of a multifaceted viewpoint in learners so that they could make them imaginative, honest, and responsible citizens (NaCCA, 2020). Social Studies enables students to gain the necessary tools to become successful, engaged, and patriotic citizens. It addresses the obstacles or problems that face and threaten the existence of Ghanaian society. It achieves this by letting students to examine, investigate, and design appropriate solutions to individual and social issues using concepts, theories, and generalizations from a variety of relevant disciplines.

According to NaCCA (2020), the goal of including Social Studies is to provide students the chance to learn more about their close environment and the world as a whole. As a result, the primary responsibility of the Social Studies instructor is to emphasize the development of students' relevant information, good attitudes, values, and problem-solving abilities. However, according to Eshun et al. (2019), “there is a vast gap between intended objectives and actual classroom practices in the teaching

and learning of Social Studies in Ghana. The comprehensive nature of the Social Studies education precipitated the need for the instructors to remain flexible and adaptable to change in the way in which teaching is delivered. Teachers are expected to relate issues taught in the classroom to real life situations in the country and guide students to find practical and reasonable solutions to them. The teaching of the subject in the view of Eshun et al. (2019), will lose its intrinsic value if it does not address the contemporary persistent issues of human survival in the nation which is the main focus of the subject

The Social Studies field has had a tumultuous relationship with technology, praising its potential benefits while criticizing its limits in supporting Social Studies practice. The incorporation of technological tools and resources into education has been followed by a growing interest in technology's ability to effect changes in social, civic, and economic functioning. The flood of information in various forms of representation opens up new avenues for instruction and learning in an academic setting that has historically relied on the text as a knowledge source. According to Elkins (2007), images are fundamental to human lives, and therefore it is necessary they become paramount in the educational settings. According to Mayer (2009), emerging digital technologies with a wide range of visual and multimedia materials provide new opportunities for engagement as well as addressing students' cognitive talents and learning preferences.

### **2.3 Concept of Multimedia Resources**

Multimedia content is defined as a combination of text, audio, still images, animation, video, and interaction supplied electronically. The multimedia programmes employ several characteristics that make the learning or teaching process successful and

distinctive. Video or audio, text, quiz, case study, reference material, frequently asked questions (FAQs), and other elements serve to successfully teach Social Studies (Nachimuthu, 2012). A multimedia presentation may have a powerful impact on our minds and senses. Movies, TV shows, advertising, and music videos are all popular forms of multi-media videos. Numerous research in specialized areas, such as teacher education (Borko & Pitman, 2008); computer-assisted video learning (Vijayakumari, 2009); and powerful emotional impacts (Moreno, 2004) and the use of clear recorded clips, have yielded considerable outcomes (Kobre, 2012). Mukherjee (2018) classifies text, pictures and graphics, audio, sound waves and video formats as elements of multimedia.

Multimedia has been somewhat effective because it uses more than one of the five human senses, focusing on the two most important modalities for receiving information thus, sight and sound. It can also ignite attention, interest, and motivation in the process due to motions and music. Multimedia on its own, on the other hand, is intriguing at best and does not necessitate the user being actively controlling or thinking about what is being displayed. Texts, photos, and graphics are static (non-moving) elements within a multimedia programme, whereas audio, video, and animations are moving objects or dynamic objects.

In another vein, multimedia is the use of technology to combine multiple media types such as text (alphabetic or numeric), symbols, graphics, photos, audio, video, and animations for the purpose of improving knowledge or recall (Guan & Song, 2018). Similarly, Dahal (2021) described how the term “multimedia”, which is made up of “multi” which means “various expression techniques” and "media," which includes

technical terms like "computer," "conversation," and "digital," have evolved through time.

Multimedia is a platform that combines analogue data in various forms, such as text, graphics, and audio-visual resources, into a single digitized data stream and relays it using several (multi) vehicles (media). It is a system that enables people to connect to high-speed information transmission networks with ease. Multimedia is an exciting combination of computer hardware and software that allows the user to create outstanding presentations using video, animation, audio, graphics, and testing tools on a low-cost desktop computer.

Awogbami (2020) multimedia resource is defined as the presentation and combination of text, graphics, audio, and video with links and tools that allow the user to navigate, interact, create, and communicate via a computer or other electronic device. Scholars and policymakers have been increasingly advocating for the use of multimedia in teaching and learning in recent years. CD-ROMs, CD-I (compact disc interactive), DVI (digital video interactive), and rewritable compact discs, as well as slides and video presentations, are examples of multimedia resources or technology.

Besides, multimedia resources, according to Acun (2014) are tools for teaching, learning, research, information, and interaction for students and educators. ICT integration in education may have repercussions for social studies in particular, since its ability to offer visual pictures of real-life events to students through movies, documentaries and still photos has enormous potential for younger students studying the subject. This means that multimedia is a creative and successful teaching and learning tool since it motivates pupils to learn and helps them comprehend the material offered. It assists teachers in effectively presenting knowledge and concepts

to the learners. Instead of being passive learners, students become active participants in the teaching and learning process.

Consequently, multimedia technology has ushered in a new era in the evolution of teaching and learning of Social Studies. Multimedia technology is the ability to combine multiple types of material such as text, audio, picture, numeric, animation and video in the form of computer software, as well as its interactive capabilities, making it an appealing learning aid. Because of its ability to activate our perceptions such as sight, hearing, and touch, multimedia is regarded as a remarkable learning tool in the educational sector in the current educational dispensation.

This assertion holds in the sense that in the recent past, teachers used to rely solely on school textbooks for lesson ideas and material preparations. However, in the modern times teachers may now use the internet or technology to find answers to many of their educational questions and engagement with the learners. They can give students the chance to work in groups on projects based purely on primary sources of information as well as allowing them to build their own knowledge and skills. Multimedia resources, on the other hand, are designed to be used in knowledge institutions to facilitate and increase learning and knowledge transfer between teachers and students (Awogbami, Awogbami & Awogbami, 2020).

Similarly, Thamarana (2015) corroborates that multimedia is a term that refers to a collection of multiple types of content. Text, music, still images, animation, video, and interaction are all examples of content types. It is usually recorded and played back, shown, or accessed by information content processing equipment like computers and electronics, but it can also be part of a live performance. Multimedia provides a complex multi-sensory experience in exploring our world through the

presentation of information through text, graphics, images, audio, and video, and there is evidence to suggest that combining words and pictures increases the likelihood of people being able to integrate a large amount of information. Also, students learn best by seeing the value and importance of the information presented in the classroom in a relatively practical or doable form.

#### **2.4 The Role of Multimedia Resources in Teaching and Learning**

Multimedia is a combination of more than one media type such as text (alphabetic or numeric), symbols, images, pictures, audio, video, and animations usually with the aid of technology for the purpose of enhancing understanding or memorization (Guan *et al.*, 2018). It supports verbal instruction with the use of static and dynamic images in form of visualization technology for better expression and comprehension (Alemdag & Cagiltay, 2018; Chen & Liu, 2008). The hardware and software used for creating and running of multimedia applications is known as multimedia technology (Kapi *et al.*, 2017). Multimedia technology has some characteristics like integration, diversity, and interaction that enable people to communicate information or ideas with digital and print elements. The digital and print elements in this context refer to multimedia-based applications or tools used for the purpose of delivering information to people for better understanding of concepts.

Teachers incorporate multimedia in their lessons, which include Visual Multimedia (images, videos & infographs), Audio Multimedia (Podcasts, Audio Clips & Audio Books), Interactive Multimedia (Simulations, Interactive Maps & Quizzes and Games), Web Based Multimedia (Websites, Blogs & Online Archives) including Other Multimedia (Virtual Field trips, 3D Models & Graphic Models) (Prensky, 2012, Richardson, 2010).

Indeed, various aspects of human endeavours, especially the educational sector, are being transformed by the advent of Information and Communication Technology (ICT). ICT involves the use of hardware and software for the purpose of collecting, processing, storing, presenting, and sharing of information mostly in digital forms. Multimedia technology is an important aspect of ICT that deals with how information can be represented and presented digitally, using different media such as text, audio, video, among others (Guan et al., 2018). It involves the combination of several technologies provide information in the best possible formats, packages, and sizes.

However, when used in the classroom or for educational purposes, the design quality and sophistication of multimedia application must be high enough to combine the different elements of the cognitive processes so as to achieve the best mimicking of the teacher. There are different types of multimedia applications available in the market today. These applications have been deployed for different educational purposes such as the works deployed for Mathematics classes, Social Sciences, Sciences, Physiology, Physics and Physical Education Studies (Al-Hariri & Al-Hattami, 2017; Anderson, 1993; Chen & Liu, 2008; Chen & Xia, 2012; Ilhan & Oruc, 2016; Jian-hua & Hong, 2012; Milovanovi et al., 2013; Shah & Khan, 2015).

The central problem, however, remains the same. Which is, the problem of how to use the applications to provide students with stimulating experience by delivering information for better understanding of concepts. While it is important to develop various applications for effective teaching delivery, each of these applications has its own focus area, peculiarities, target age, merits and demerits. Thus, the taxonomy and component synthesis for the development of the multimedia application need to be extensively investigated as these would affect the teaching delivery, learning and

wider applicability. Some of the multimedia solutions have been deployed, tested and recorded significant success, while some did not record marginal success.

## **2.5 The Relationship between Multimedia Resources and Social Studies**

### **Instruction**

Multimedia resources, according to Mukherjee (2018), is any mix of text, images, sound, animation, and video that is transmitted and controlled by a computer. Multimedia has been somewhat effective because it uses more than one of the five human senses, focusing on the two most important modalities for receiving information thus, sight and sound. It can also ignite attention, interest, and motivation in the process due to motions and music. Multimedia on its own, on the other hand, is intriguing at best and does not necessitate the user being actively controlling or thinking about what is being displayed. Text, images and graphics, music, video, and animation are all parts of multimedia, according to Mukherjee (2018).

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Also, students learn best by seeing the value and importance of the information presented in the classroom in a relatively practical or doable form. Multimedia resources have been envisioned as a tool for achieving social studies-specific aims. Proponents have emphasized its use in actively engaging students in learning by providing opportunities for interdisciplinary, inquiry-based, student-centred, and multimodal education.

Specialized subjects that were previously underserved in textbooks and supplemental materials may now be examined in depth through internet resources that combine up-to-date knowledge with visually attractive graphics. With internet access to information, current events and developing topics of interest in the social studies may be examined more readily. Using technology in the social studies classroom may enable an educational partnership by providing venues for students' creativity and competency to be developed with a broad range of materials. Digital materials are frequently used to create inquiry learning processes that involve students in primary source research, analysis, and interpretation in order to comprehend the complexities of the past and the complexities of social knowledge. The constructivist movement is predicated on the idea that problem-centred education may be attained through an active approach to learning. Thamarana (2015) investigated the use of multimedia applications and the internet in the teaching and learning of English. The study found that teachers may utilize Multimedia Resources to identify individual learners' varied learning styles so that they can be matched with the appropriate teaching techniques. Ediyang and Effiom (2017) discussed social studies teaching resources in the 21st century and proposed that it is necessary for Social Studies teachers to be aware of contemporary teaching resources such as multimedia in order to provide authentic, appropriate, and accurate learning content to their studies.

According to a study conducted by Atubi (2021), the majority of social studies teachers in Delta State perceived Multimedia resources to have a high and efficient influence in promoting the teaching and learning of Social Studies, bringing structural changes, and providing a practical teaching environment for Social Studies. The study also showed that the utilization of multimedia resources serves to inspire students, assist them grasp topics, and allows them to learn at any time and from any location. This is consistent with the findings of Akinoso (2018), Ekinci et al. (2009), Goodova et al. (2015), De Sousa et al. (2017), and Ediyang & Effiom (2018). Accordingly, Ogheneakoke et al. (2019) investigated the effect of simulation games as a multimedia teaching strategy, and their findings support the position of other researchers that multimedia resources, in any form, improve social studies education. Similarly, Ekinci et al. (2009) put that Multimedia Resources use in Social Science education is a tool of making students to remember easily and durably. They also assist to enhance the grasping of knowledge. Students live in an environment with abundant of technology, therefore technology should be made part of their educational life.

Krutka and Carano (2016) substantiated that video conferencing have special promise for Social Studies Education and can make social studies students and teachers to become “world class citizens”. When it comes to Social Studies education, thinking dispositions are crucial. Students must understand when and how to apply their strengths. Fostering a thinking culture in the classroom can help students acquire these skills. The effective use of multimedia resources like as music, film, and animation may make tasks such as problem solving more relevant to the student experience. The use of multimedia resources encourages the use of new pedagogical rubrics such as cooperative learning, active learning, and project-based learning,

which emphasize the roles that analysis, synthesis, and other higher order cognitive skills play in learning, with a particular emphasis on learners building their own knowledge. The effective use of multimedia resources, such as audio, video, and animation, may make performing such tasks as problem solving more relevant to student experience.

Using multimedia resources to fulfil these social studies themes will result in a good social studies education, which can be done when Multimedia resources are meaningful to both instructors and students, value-based, demanding, integrative, and active. The multimedia activity should be developed in such a manner that students are actively engaged in the construction of knowledge and social understanding. To accomplish this objective, multimedia development must consider cognitive complexity, sensitivity to instruction, meaningfulness, reliability, fairness, and linguistic appropriateness. Multimedia resources produced for teaching and learning must be produced for assessment as well, with compatible goals, similar depth, and equal quality. The acquisition of multimedia skills by teachers will improve the teaching and learning of scientific concepts, particularly in Junior High schools. Bordoh et al. assert that Social Studies is an integrated discipline which is full of concepts which required a resourceful teacher to handle (Eshun et al., 2019). The stronger the social studies teacher's ability to excite and bring to bear on problems presented, the better the accomplishment of specified objectives in the learning areas. The use of technology as a tool to improve academic work has become firmly established in curriculum in the social studies, based on the concept that technology-based products may enhance integrated learning, investigation of ethical and social policies, and active involvement in real activities.

Inarguably, many schools, however, have not kept up with technological culture, either as a teaching tool or as a subject of study and exploration. To create tools that allow learners to acquire knowledge, we must look beyond creating skills and memorizing information in the abstract; if these are our educational goals, technology will be neither cost-efficient nor successful in absolute terms. If our aims include improving analysis, synthesis, communication, and understanding of interrelationships in the ways we portray our reality, we will discover that technology supports and strengthens all of our efforts in this direction. The studies reviewed highlighted the benefits and prospects of Multimedia Resources, thus it is important to investigate the usage of Multimedia resources by teachers and ascertain students' and teachers' perception on the perceived influence of Multimedia Resources in Junior High Schools in Ghana.

## **2.6 Effectiveness of Multimedia Resources in Teaching Social Studies**

A study conducted by Abdulrahaman et al. (2020) revealed that multimedia tools have been developed to assist teaching and learning in numerous fields of study. It also demonstrates that multimedia tools are given via a variety of technologies and multimedia components, and that they can all be classified as web-based. Teacher trainees in South Africa's Diploma in Basic Education (DBE) programme are challenged to work hard to learn how to use multimedia technologies to spread the use of a variety of media among students in order to develop and polish their teaching and learning skills. This was a call to action in response to the information revolution's pressures and obstacles. The introduction of multimedia tools in teaching was an innovation for basic education teachers, according to the author, because information and communication technology (ICT) has the potential to increase and diversify citizens' learning and knowledge-based acquisition (De Sousa et al., 2017).

This policy implementation in South African educational institution underscores that importance of technology and the use of multimedia resources in the basic school setting. In another breadth, governments in Turkey have placed a significant emphasis on integrating Information and Communication Technologies (ICT) into its educational system throughout the last decade, according to Cener et al. (2015). Turkish education officials, as well as academics, emphasize the importance of providing students with the knowledge and abilities they need to learn independently and meaningfully. The results of the study indicated that incorporating multimedia tools into the teaching and learning process will aid the students in the achievement of the national educational goal.

It is further elaborated that, Teachers can use multimedia to combine text, images, animation, and other material into one package to offer comprehensive information to their students in order to meet course objectives. This effort put in by instructors enable the explanation of complex processes in a highly interactive and animated format, as well as the natural and intuitive interconnection of instructional content with other related topics or concepts (Jarosievitz, 2015).

These advantages gained in the use of multimedia resources, according to Jarosievitz (2015), have encouraged university education lecturers to use multimedia (text, pictures, animation, sound, video and interactivity) and new devices and their applications to ensure that pre-service teachers leave university with adequate knowledge and skills for the Junior High School levels. Also, multimedia has succeeded in psychomotor development and strengthening of visual processing of the intended users in multimedia educational programmes where DVDs were also employed as multimedia technology (Mohammed & Daham, 2021).

They go on to say that multimedia resources are successful teaching tools and should be included into pre-service teachers' teaching, learning and training, so that they can apply their knowledge in multimedia to their teaching in Social Studies classes at all levels of education. It is further observed that students who have access to multimedia courseware, whether individually or in groups, can take care of their own educational needs, gaining knowledge at their own pace and in the direction that best suits their needs, according to De Sousa et al. (2017). For instance, certain mathematical topics, such as polynomials, were also proven to be difficult to comprehend for some pupils in the classroom, resulting in a rapid loss of interest in mathematics topics presented on the chalkboard. The advent of an overhead projector was a significant step forward; as a result, multimedia technologies help students achieve their goals and bring instructional approaches into the twenty-first century. This circumstance is plausible in Social Studies teaching principles, necessitating the use of multimedia tools in the field.

According to De Sousa et al. (2017) it is vital for Teacher Students (TS) to gain enough exposure to the incorporation of educational technology into the disciplines given in the General Education and Training in South Africa (GET) situation. Furthermore, in South African schools, Social Sciences is a compulsory subject in the GET for Grades 4 through 9. Hence, when comparing these years of schooling in South Africa to Ghana, it is observed that students in these grades are both in the Junior High School categories, therefore the use of multimedia resources in teaching topics at the JHS levels. As a result, teacher trainees undergoing training in colleges of Education to teach in Ghana's Primary and Junior High Schools should be provided with basic technological knowledge and skills so that they may confidently use multimedia approaches in teaching topics in the Social Studies discipline.

It is again demonstrated that history and geography are two disciplines that must be thought through multimedia resources, according to the National Curriculum Statement and the Department of Basic Education (DBE's) policy document, as well as the National Curriculum and Assessment Policy Statement (CAPS) for Social Sciences in both the intermediate and senior phases in South Africa. This directive in South Africa complements the integrated approach to teaching Social Studies and, as such, demands the use of multimedia materials in assessing Social Studies subjects (De Sousa et al., 2017). This policy, which helped to shape South Africa's educational framework and policies, emphasizes the importance of employing multimedia resources as an effective tool for assessing concepts in Schools and Colleges.

More examples of the benefits of using multimedia resources, as evoked by De Sousa et al. (2017), were cited in history lectures. As a result, ICT integration and the use of multimedia resources in teaching and learning in schools have become more active and learner-centred. In reality, historians urge that students study a wide range of multimedia resources, including text, images and audio. They also noticed that many maps, animations, and films are used in geography classes. Multimedia is advocated in Social Science Education because it is easy to use, helps with memorizing, and allows for more knowledge to be delivered faster and in a more engaging style between teachers and students (De Sousa et al., 2017). Cener et al. (2015) studied the influence of using multimedia resources to teach Social Studies on students' achievement in the subject. For the study, history, geography and culture-related themes were chosen from the Social Studies curriculum. The findings revealed that using multimedia resources to teach Social Studies had a beneficial impact on student progress and academic achievements.

They have demonstrated that because Social Studies curriculum is developed with an interdisciplinary approach, knowledge produced by scholars of Social Sciences that are regarded as the foundation for Social Studies such as History, Geography, Economics, Sociology and so on, is integrated in the curriculum in such a way that in one lesson teaching and learning activities may involve the knowledge produced by scholars of Social Sciences that are regarded as the basis for Social Studies. Therefore, multimedia usage in the teaching of the subject in Schools and Colleges could be one of the ideal mediums to adopt in the teaching of Social Studies concepts (Cener et al., 2015). More specifically, Social Studies education encompasses a broad spectrum of social scientific knowledge bases. According to the Social Studies curriculum, students should be taught knowledge, skills, attitudes, and values. Because those notions encompass such a broad variety of information, from ancient history to geography, culture to trade, multimedia resources will be required to enhance successful teaching and learning of the subject (Cener et al., 2015).

Social Studies is a subject that focuses on abstract concerns. For some young students with low cognitive development, these abstract concerns are problematic. What is required is the creation of learning environments that make use of tangible objects and equipment. In this regard, Information and Communication Technologies (ICT) have potential for Social Studies, as evidenced by the use of multimedia tools to demystify key topics for Junior High School students (Cener et al., 2015). ICT has the ability to bring real-world concerns into the classroom in ways that were previously impossible in a traditional classroom setting. ICT and the internet, in particular, present kids with options for study, interaction, cooperation, and collaboration due to their adaptability (Cole, 2000).

Using moving and still photos, researching personal narratives, and performing social research using ICT can make Social Studies more interesting and enjoyable for students who might otherwise find the topic boring (Cener et al., 2015). Aside from its potential in the cognitive domain in the classroom, multimedia and ICT offer some characteristics that could be used to address the affective domain of students. For educators, many of its tools have motivating consequences. When dealing with the affective realm, it has much greater promise, especially in subjects like Social Studies. For example, a short movie showing a case concerning poverty could have the intended emotional effect on students. It suggests that multimedia resources have an impact on student achievement and attitudes. As a result, educators must grasp how to maximize its potential.

Furthermore, according to Bostan (2015), multimedia technology or resources have the potential to improve the efficiency and equity of educational outcomes. With the help of computers and open multimedia technologies, anyone may learn anywhere, at any time, on any device, with little assistance or non from an instructor. Most importantly, educational knowledge may easily cross-national borders, as learning is an international process involving collaboration between teachers and students. For example, when teachers and students use multimedia tools, their interactions are no longer constrained by time and geography, resulting in a more temporal and spatially agnostic learning environment.

During the emergence of the COVID -19 pandemic, this revelation regarding the use of multimedia tools in teaching and learning was observed to have saved many countries in sustaining educational training of citizens and economic production. The availability of these educational multimedia materials has provided students and

professors with appealing cognitive and affective resources to aid in the development of the teaching-learning process. As a result, this process has gained in attention because it is not just a response to changing situations, but also to its goals. Allowing students to interact by uploading the finished product of their work has enhanced their motivation time management and creativity (Goodova et al., 2015).

According to Kere (2016) the computer can reduce learner cognitive burden by taking on a large amount of information processing load. It can also simulate a process dynamically, activate or increase the learners' own processes and accommodate a variety of activities. In addition, the computer can supply linguistic knowledge, model intellectual skills, activate, or boost cognitive methods to help students study more effectively hence the relevance of multimedia resources usage in teaching and assessing concepts in Social Studies in Colleges of Education in Ghana.

The author goes on to say that the efficiency with which computers are used in education is a key component in predicting which countries will flourish in the future. Computers are employed in most schools to aid management with day-to-day administrative tasks. Furthermore, to face the problems of the information era, computers are being employed as a teaching tool in schools (Kere, 2016). By offloading a large amount of information processing from the student, the computer can reduce the learner's cognitive load. Furthermore, some computer determinists believe that the arrival of computers will improve education and learning (Sarfo & Ansong-Gyimah, 2010) the supply of computers and internet connectivity to schools will result in good changes among students. Some convictions that computers and their peripherals are a key aspect in efficient ICT teaching has been confirmed by their perspective on hardware and software.

The impact of multimedia-assisted education on students' academic progress and attitude in Schools was studied by Shah and Khan (2015). The findings showed that multimedia-assisted teaching was more effective in lesson delivery than traditional teaching methods. When a multimedia-assisted teaching approach was employed, for example, students' attitudes toward science increased more than when traditional teaching methods were used. We may use multimedia to vividly show various events and processes, simulate complex content, and present various degrees of abstraction. This aids in the development of meaningful and real learning. Multimedia-assisted resource is extremely beneficial when students lack enthusiasm and prior knowledge in the concepts of a subject under review.

Furthermore, Shah and Khan (2015) believe that multimedia-assisted instruction is more successful than traditional instruction. As a result, they have advised that multimedia resources be provided to schools for the teaching of Social Studies topics, as well as infrastructure for the implementation of multimedia-aided instruction. They also claim that using a multimedia-assisted teaching method enhances students' attitudes toward Social Studies more than using a standard teaching method. Furthermore, Neupane (2023) argued that with the advent of inexpensive technology and multimedia resources, effective teaching materials for improvement of Social Studies education can be accessed with a much smaller budget than was previously possible. Mohammed and Daham (2021) espoused that the beginning of the twenty-first century, marked the development and spread of the internet, which changed life on Earth in a variety of ways.

Social media development initiated the free flow of digital content in the shape of text and audio-visual (Mohammed et al., 2021). The use of multimedia resources depicts opinions, interests, and ideas which are made possible through social media. For example, Facebook, Twitter, and Instagram are among the most popular social networking platforms among teenagers that if properly used can foster effective teaching and learning in Schools and Colleges (Andreassen et al., 2017). Among young adults, the usage of social media in conjunction with multimedia resource is becoming the norm. With the help of young people, social media allows young adults and students of higher education institutions to obtain accurate and valuable information for academic development (Boahene et al., 2019). Scholars and academic communities have turned to social media and multimedia tools to boost students' academic motivation through technology, where information sharing, cooperation, and engagement among peers can help students with their learning-oriented activities (Hassell & Sukalich, 2016). Multimedia encourages collaborative learning and increases students' self-confidence in their ability to obtain all necessary knowledge in higher education (Andreassen et al., 2017).

Academic challenges help to improve social media's information attitude and access to the proper and most up-to-date information in order to meet the challenges of academic life (Boahene et al., 2019). Multitasking is a term that refers to being enthralled or having a good time concentrating on something specific. Many students believe that multitasking improves their ability to handle several things well in and out of the classroom (Carrier et al., 2015). Students multitask because it saves time and allows them to complete assignments more accurately and on time (Dindar & Akbulut, 2016). Multitasking is prone to distraction, and meaningful gains may not be achieved for all pupils. Multitasking is further facilitated by the use of technology and

multimedia resources, as students participate in learning while also listening to music or texting (Chang, 2017). Improved social media or multimedia multitasking boosts self-esteem and confidence in one's ability to do academic tasks successfully (Boahene et al., 2019).

Recent developments in the educational arena, according to Awogbami (2020), need the appropriate use of multimedia materials at all levels of education. As a result, it is underlined that in today's knowledge-driven economy, generating and utilising multimedia resources in learning is one of the most popular notions. Adolescents can learn from and about each other through multimedia materials, even if they do not have the opportunity to meet face to face, to learn with students from different backgrounds (Levett-Jones et al., 2012). Teachers must embrace the culture of knowledge transfer to strengthen their teaching and learning experiences in order to effectively employ multimedia in the school setting. Knowledge transfer is defined as a process in which people exchange skills, experience, competencies, knowledge, and capabilities. They further explained that teachers who use effective information transfer such as multimedia resource strategies can improve their performance.

Yoeung et al. (2017) found that students' learning and performance have a positive correlation with teachers' knowledge transfer and practises in their study perceived organizational support, knowledge creation, knowledge transfer and learning performance. Similarly, students at all levels benefit from the use of multimedia resources because it improves the visual presentation of educational materials. Scholars from various disciplines have investigated the use of multimedia in knowledge sharing and transmission, including science, art and humanities, social sciences and management, as well as education and engineering (Awogbami, 2020).

Idris et al. (2018) investigated the development of computer-assisted instruction multimedia for educational technology courses for students and found that students were more interested in studying the materials given. These researchers discovered that multimedia had a positive impact on the learning process.

In a related study of the usage of multimedia in classrooms, it is shown that after implementing multimedia in the study, student motivation rose. They found that including multimedia into the learning process not only improves students' success rates, but also causes favourable changes in their attitudes about lessons. Similarly, Yüncül and Er (2014) investigated the impact of multimedia software courses on student attitudes and discovered that the usage of multimedia resources in lesson delivery improved students' attitudes toward lessons. DiCicco (2016) also contributed to multimedia resources related to Google classroom use. It is a platform that helps teachers and students to establish a digital classroom where students may interact with their teachers and peers (Phan, 2015). It is a free programme that combines e-mails and documents into storage folders. Students can retrieve and examine files, videos, links, announcements, and assignments that teachers have uploaded. To acquire collaborative skills, document files can be modified in class and shared with peers.

When students finish an assignment, they can put it on the teacher's bulletin board or the classroom bulletin board. This application can be accessible from anywhere utilizing multimedia tools or devices such as computers or smart phones, which is beneficial to both teachers and students. Teachers can observe student discussion and write comments on the Google platform, which allows students to talk and discuss topics learnt in class. Video segments, PowerPoint presentations, documents and web quests are all examples of assignments that can be posted via this medium.

Correspondingly, new technology, particularly computers and multimedia resources, have aided class preparation. Teachers can use numerous technologies in the classroom to prepare dynamic and imaginative classes as well as assign assignments. Instructors can utilize technology to assess students in a variety of ways, but in general, technology and multimedia resources can improve assessments by allowing for more flexible designs. Teachers can use real-time feedback to assess students' abilities and capabilities (Ibieta et al., 2017).

Adenigba (2019) sees ICT as electronic or computerized equipment with human and interactive resources that can be utilized to improve education and learning as well as personal use (Apagu & Wakili, 2015). Similarly, Information and Communication Technologies (ICTs) are the resources, tools, and gadgets that students can utilize to study in a more efficient and stimulating manner than relying solely on the teacher's voice. Groff and Mouza (2018) have advocated for integrating technology into teaching and learning across the curriculum to transform learning settings. However, incorporating technology into classroom instruction goes beyond teaching fundamental computer skills; it must occur across the curriculum and involve significant learning components including active student engagement, teamwork, collaboration, impact evaluation and connection to real-life problems. The usage of digital tools should not be a one-time event; it should be ongoing, transparent and aligned with curricular objectives. According to Gorder (2018) employing technology in conjunction with multimedia resources in teaching and learning of school subjects such as concepts on Social Studies increases students' motivation in communication, learning and empowerment in solving social problems. The internet for instance, enables real-time communication, making it feasible to connect with other learners. It supports the instructional processes of both teachers and students. By combining

multimedia resources with technology, learners can gain control over their learning and promote independent learning.

## **2.7 The Impact of Multimedia Resources on Student Engagement**

Multimedia resources in education have gained increasing attention over the last decade due to their potential to enhance student engagement (Alghamdi et al., 2020). Alghamdi et al., (2020) assert that multimedia tools, such as video content, interactive games, and virtual simulations, can provide a diverse range of learning experiences, leading to higher levels of engagement among students. This conclusion aligns with the findings of a study conducted by Jones-Goods (2015), which found that students who interacted with multimedia resources showed a significant improvement in their engagement levels. Jones-Goods (2015) noted that multimedia resources, by providing more immersive and interactive experiences, allow students to engage more deeply with the learning material, encouraging higher-order thinking skills.

However, the use of multimedia resources in education is not without challenges. Thamarana (2015) argue that while multimedia can indeed enhance student engagement, it requires significant time and resources to develop high-quality content that effectively supports learning objectives. They also stress that the overuse of multimedia resources can lead to cognitive overload, which can hamper rather than enhance student engagement (Thamarana, 2015). Additionally, Thompson and Harris (2025) argue that the impact of multimedia resources on student engagement may depend on several factors, such as the students' individual learning styles, the type of multimedia resource used, and the subject matter. They emphasize the importance of careful planning and selection of multimedia resources to maximize their benefits.

Finally, in a longitudinal study, Mukherjee (2018) concludes that while multimedia resources can initially spike students' interest and engagement, sustained engagement requires consistently updating and diversifying these resources to continue capturing students' attention. This research implies that the impact of multimedia on student engagement is complex and influenced by a variety of factors (Mukherjee, 2018). In conclusion, while existing literature generally supports the view that multimedia resources can enhance student engagement, further research is needed to explore how to best implement these resources in different learning contexts.

## **2.8 Factors Militating Against the Use of Multimedia Resources among Teachers**

Many factors can influence the effective usage of computer technology or multimedia resources in the field of education.

Teachers' attitudes toward the use of technology in the teaching and learning process is one of these aspects. Teachers who have a negative attitude toward computers are less adept in using computers and thus less likely to adopt and adapt to technology than those who have a good attitude (Mahajan, 2016). The teacher is the primary agent in developing and maintaining the usage of technology and multimedia resources in lesson delivery system. It is believed that successful ICT integration in education allows teachers to shift instruction from teacher-centred to learner-centred, in which students engage with one another and use computers and the internet for their own learning needs (Prince, 2015). However, many teachers do not believe they are fully prepared or comfortable using ICT in educational contexts, preferring to stick to their old teaching methods.

One of the major issues that must be addressed in order to ensure that a comprehensive combination of computer technology and multimedia resources is used in Schools and Colleges is resistance to change. Because most teachers are unwilling to modify their old methods of doing things, teachers' attitudes limit the extent to which technology can be used in relation to multimedia materials (Darling-Aduana & Heinrich, 2017).

In a study into the usage of multimedia resources in teaching learners in the United States, it was revealed that although technology usage was increasing in teacher training programmes, however, teacher educators could do more to help pre-service teachers learn to integrate educational technology into their teaching and learning at the professional level (De Sousa et al., 2017). According to Goodova et al. (2015) the internet as a multimedia superhighway is both a source and a route of knowledge, putting instructors and students in new educational situations and necessitating a collaborative response to modernity's technical difficulties. Their argument implies that, despite the triumphs achieved via the use of multimedia resources in teaching and learning, same advantages come with equally complex obstacles for both instructors and students in Social Studies. Similarly, the idea of transforming a traditional classroom with desks, notes, pencils, and a blackboard into an online forum with computers, software, and the Internet intimidates many teachers who are used to face-to-face engagement.

Jones-Goods (2015) discusses how employing cultural references to convey knowledge, skills and attitudes of inclusion empowers students intellectually, socially, emotionally, and politically in culturally responsive classroom practices. It is

hypothesized that in the absence of such behaviours, students' literacy development may be slowed.

To put it another way, the problem is not a lack of desire to read, but rather new reading conditions and habits brought on by the availability of information on the Internet or through multimedia resources. Hence, the issue of change and attitude comes to bare. Many Teacher Education Institutions (Universities and Colleges of Education) in the country have been graduating teachers with basic ICT teaching skills since 1990s. However, it seems this does not equate to more or better ICT instruction among teachers. The majority of instructors who received formal training in the use of computers as a personal tool use computer for teaching in the same way as their colleagues who did not have any basic training in the usage of computer tools (Mahajan, 2016). This observation goes a long way to confirm some of the challenges that teachers face in their efforts in deploying multimedia resources in teaching Social Studies.

On another hand, a link between pre-service teachers' knowledge of technology and their attitude toward it. According to Гатиат et al. (2022), pre-service teachers who have higher technology knowledge have a more positive attitude toward using technology and multimedia tools in teaching and learning contexts. Nevertheless, decisions about teachers' beliefs and attitudes, accessibility of hardware and relevant software, the nature of the curriculum, innovativeness and confidence of teachers, instructional strategies, and time are not given the desired attention, teacher education programmes are ineffective at increasing teachers' capability for integrating technology. It is also, debated if there are elements other than technical knowledge

and expertise that influence instructors' success in integrating technology or multimedia resources into their classrooms.

In terms of computer use, the study focused on pedagogical skills, online search, and general classroom activities (Boakye & Banini, 2008). For years, teacher education faculties have struggled to deal with the issues of adequately training instructors to integrate technology using a range of ways. However, it appears that everyone agreed that technology is crucial in education delivery and that teacher educators must be role models in the usage of these multimedia approaches in easing pupils learning on basic concepts in the field of Social Studies. For example, in recent years, the government and other partners, such as Microsoft Corporation, have attempted to promote ICT in order to provide the human resources required by Ghana's educational institutions and burgeoning ICT industry. The Kofi Annan ICT Centre is one such initiative. In light of these factors, Ghana's ICT for Accelerated Development (ICT4AD) legislation was passed into law in 2004. (ICT Policy Document, 2004).

Moreover, young adults are extra engaged with multitasking on social media as young adults like to consume the media content more than older adults (Carrier et al., 2015). Media multitasking increases the mind wandering and reduces adequate attention among learners (Alghamdi et al., 2020). Susila et al. (2018) investigated interactive multimedia that can improve students' involvement; their findings revealed that teachers typically struggle to present the material due to a shortage of time in preparing various media for learning. Teachers employed visual media, audio-visual, pictures, textbooks and PowerPoint in their classrooms. The same study found that students enjoyed learning through the use of interactive multimedia tools, but that not all material was available in this format.

Nasaruddin and Ismayatim (2013) conducted a study on factors influencing teachers' use of multimedia teaching tools or resources, and they identified software design and technical functionality, high technology costs, a lack of supportive infrastructures and incorrect software selection or software inadequacy as some of the common challenges faced by teachers. Agbagbue (2018) conducted a study on the use of instructional media for teaching business studies in Nigeria, and the findings revealed that instructional media for teaching business studies was scarce. The study concluded that instructional media are crucial resources for teaching and learning, particularly when teaching skilled disciplines such as business studies; yet, the lack of multimedia resources made grasping concepts in a subject relatively challenging.

Another common viewpoint on the barriers to Colleges of Education Teachers fully utilizing multimedia resources is that they are the result of insufficient training sessions, school support visits, exposure to various ICT strategies and assistance to teachers in obtaining laptops and internet connections to use at home and in the classroom in order to prepare for classroom implementation. Kollo et al. (2024) argued that the use of technology and multimedia resources among high school learners have an adverse effect such as cyberbullying. Thereby implying that such crimes are less frequent compared to the traditional bullying.

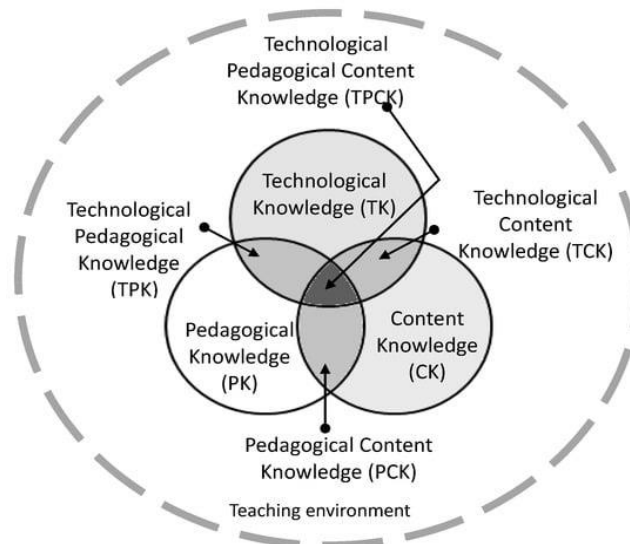
## **2.9 Conceptual Framework: Technological Pedagogical Content**

### **Knowledge (TPACK)**

The study adopted Technological Pedagogical Content Knowledge (TPACK) framework as the conceptual framework. The idea tries to convey the critical necessity of knowledge required of educators in order to incorporate technological skills into their professional development. The three types of knowledge -

Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK) - are thereby integrated and recombined in a variety of ways within the TPACK framework. As illustrated in Figure 2.1. Each of these domains indicates a knowledge set that educators must possess in order to effectively integrate technology into their teaching (Koehler & Mishra, 2009).

The TPACK framework (Koehler & Mishra, 2009) builds on Shulman's (1986) work by including technological and pedagogical expertise. Many teachers, according to Koehler and Mishra (2009), do not feel equipped to use current technology to impart material.



**Figure 2.1 Conceptual framework**

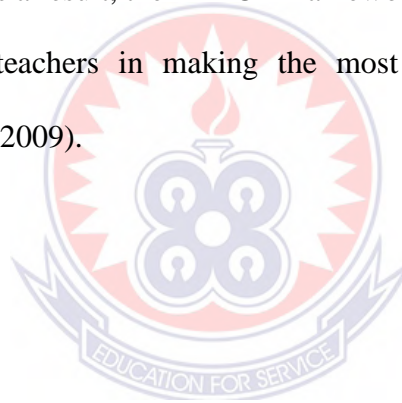
Source: Koehler and Mishra (2009)

Many computer-aided instructional software programmes are available on the internet for Social Studies teachers to utilize in delivering Social Studies classes. Several studies have demonstrated that using technology into Social Studies teaching and learning enhances student performance significantly. According to the framework, computer or multimedia tools alone cannot make a significant impact in learning; rather, change can be made only via the teacher's instructional capabilities and

approaches provided during the teaching and learning process. According to the TPACK theory, before using multimedia tools in their courses, educators must first understand how to utilize them. Technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK), according to the TPACK theory, give a beneficial answer to a number of quandaries that instructors have while incorporating educational technology in their classes.

### **2.9.1 Relevance and application of the conceptual framework**

The relevance of the theory for this study is that, it enables a clear and perceived contrast between social studies instructors' teaching objectives and their Multimedia Resource selections. As a result, the TPACK framework may be utilized as a model to guide social studies teachers in making the most use of multimedia resources (Hammond & Manfra, 2009).



## CHAPTER THREE

### METHODOLOGY

#### 3.0 Introduction

The ultimate purpose of the study was to investigate the perspective of Social Studies tutors and students on the usage, efficacy of multimedia resources and factors limiting its use in assessing Social Studies concepts in some sampled Colleges of Education in the Eastern region. This chapter discusses the methodological approach employed in undertaking this study. It describes the study's Research Paradigm and Approach, Research Design, Study Population, Sample Size, Sampling Technique, Data Collecting Tools and Data Gathering Procedures. The chapter goes on to explain how the data was analysed, how ethical issues were handled in the study, and the limitations of the study.

#### 3.1 Research Paradigm

The researcher employed the pragmatic framework as the theoretical lens through which the argument of this study was framed. Considering the nature of research objectives that guided this study, the researcher believed that, a single-paradigmatic research perspective was insufficient. The choice for pragmatic paradigm helped the researcher to address the problems under investigation without worrying about whether they were entirely qualitative or quantitative in nature. The use of a pragmatic paradigm allowed for a holistic exploration of the study topic and informed the selection of appropriate research methodologies and data analysis procedures.

According to Mackenzie and Knipe (2006), the terminology "Paradigm" in research is used to portray a researcher's 'worldview'. It is the conceptual perspective from which the researcher evaluates the methodological components of their research endeavour

in order to select the research methodologies to be employed and the data analysis procedures to be used (Kivunja & Kuyini, 2017). Creswell and Creswell (2017) proposed a number of paradigms or philosophical assumptions that influence the orientations of researchers and the means by which they carry out a particular study or research. According to Bryman (2016) three distinct paradigms that guide research are: Positivism, Constructivism or Interpretivism and Subjectivism. Other scholars, such as Tashakkori and Teddlie (2003; 2010), offer a fourth, known as the pragmatic paradigm, which draws features from the first three.

This paradigm originated among philosophers who thought that it was not feasible to obtain "truth" about the actual world exclusively by a single scientific technique, as supported by the positivist paradigm, neither was it possible to define social reality, as constructed by the interpretivist paradigm. The researcher believes that in carrying out research work, it is prudent to use the best courses of action for investigating the topic. Thus, exploring the usage of multimedia resources in assessing Social Studies concepts in colleges of education in Ghana, can be better understood by adopting various approaches that could best bring out credible results.

### **3.2 Research Approach**

In this study, a mixed-method approach was employed, combining quantitative and qualitative research methods. This was guided by the pragmatic research paradigm, which recognises the value of merging both types of data for a more complete understanding of the research problem.

According to Saunders et al. (2009), there are two primary research approaches: inductive and deductive. The deductive research approach is concerned with a study that prioritises quantitative research methods, whereas the inductive research

approach is concerned with qualitative research methods. The pragmatic paradigm supports a mixed methods methodology, thus, a combination of quantitative and qualitative research methodologies. This paradigm is based on the assumption that, it is not sufficient to merely gather and evaluate quantitative and qualitative data; they must be "mixed" in some way so that they offer a more complete picture of the situation when combined than when they stand alone.

Creswell (2006) collaborates that, mixed methods research provides more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone. Quantitative researchers believe and recognize that qualitative data can play an important role in quantitative research. Qualitative researchers, in turn, realize that reporting only qualitative participant views of a few individuals may not permit generalizing the findings to many individuals. The need for more precise evidence prompted the researcher to conduct the study using both quantitative and qualitative methods.

The mixed method approach afforded the researcher the opportunity to use various tools of data collection available rather than being restricted to the types of data collection typically associated with qualitative research or quantitative research. The mixed method approach also permitted the researcher to gather narrative data on variables in order to gain insights into issues of multimedia resources in teaching Social Studies, the relevance of multimedia resources in teaching Social Studies concepts and the factors militating against the use of multimedia resources among teachers. Hence, gave a deeper grasp of the problem by combining both datasets than if single dataset was utilized alone.

### 3.3 Research Design

This study utilized a cross-sectional mixed-methods design to comprehensively investigate the integration of multimedia resources in Social Studies instruction within selected Colleges of Education in the Eastern Region of Ghana. The cross-sectional design involves collecting data at a single point in time from a representative sample of the population. This design was chosen for several reasons.

Firstly, the cross-sectional design allows for the examination of relationships between variables at a specific moment, which is particularly useful for understanding current perceptions and practices regarding multimedia integration (Creswell & Creswell, 2018). By collecting data from both tutors and students simultaneously, this design provides a snapshot of the existing educational environment and the utilization of multimedia tools in Social Studies.

Secondly, the mixed-methods approach, combining both quantitative and qualitative data, enhances the depth and breadth of the analysis (Johnson & Onwuegbuzie, 2004).

Quantitative data, gathered through structured surveys, offer measurable insights into the frequency and extent of multimedia usage, as well as general attitudes towards this integration.

Qualitative data, obtained through semi-structured interviews and classroom observations, provide richer, contextualized understanding of the experiences and perceptions of tutors and students. The integration of these methods allows for triangulation, which increases the validity and reliability of the findings (Tashakkori & Teddlie, 2010).

Moreover, the cross-sectional design is efficient and cost-effective, making it feasible to conduct within the limited time frame and resources available for this research. It also allows for the analysis of different sub-groups within the population, such as variations between different colleges or demographic factors, which can provide nuanced insights into the factors influencing multimedia integration (Levin, 2006).

In conclusion, the adoption of a cross-sectional mixed-methods design is justified by its ability to provide a comprehensive, multifaceted understanding of multimedia integration in Social Studies education. This design enables the collection of robust, reliable data that can inform educational stakeholders and policy-makers about the current state and potential improvements needed in the teaching practices within Colleges of Education in the Eastern Region of Ghana.

### **3.4 Research Settings**

This study took place in selected Colleges of Education in the Eastern Region of Ghana. The Region's Administrative, Geographical and Demographic details were provided to give the reader an understanding of the context in which the research was conducted. Eastern Region is one of Ghana's sixteen administrative units and is located in southern Ghana. To the east lies Lake Volta, to the north is Bono East Region and Ashanti Region, to the west is Ashanti Region, and to the south is Central Region and Greater Accra Region. Koforidua is the capital of the Eastern Region. The Eastern region covers an area of 19,323 square kilometres, accounting for approximately 8.1% of Ghana's total landform. (GhanaDistricts.com). The Eastern region has a population of 2,925,653 people, according to the Ghana Statistical Service (2021). The region is home to numerous excellent senior high and public schools, including Aburi Girls' Senior High School, Hecta School Complex and many

others. The region also has seven (7) high-quality Colleges of Education and six (6) universities, including Ashesi University, Presbyterian University College (Abetifi Kwahu), and others. Among the three Colleges of Education purposefully sampled for the research included the Presbyterian College of Education, Ghana's first school of higher learning, located in Akropong in the Akwapem North District, Abetifi Presbyterian College of Education is located in the Kwahu East District in Abetifi-Kwahu and Kibi Presbyterian College of Education located in Kibi (East Akim Municipal).

### **3.5 Population for the Study**

The population for the study consisted of all tutors and students of College of Education in the Eastern Region. There are seven colleges of Education in the Eastern Region Namely: Presbyterian Women's College of Education (P.W.C.E.), Abetifi College of Education, Presbyterian College of Education (P.C.E.), Seventh Day Adventist College of Education (SEDACOE), Methodist College of Education (Oda), Kibi College of Education and Mount Mary College of Education (MOMACOE).

Out of these seven colleges, three, Abetifi College of Education, Presbyterian College of Education, and Kibi College of Education, offer Social Studies as Elective Courses. In this regard, the target population consisted of all Social Studies tutors and students studying Social Studies as their elective courses from these three selected Colleges of Education in the Eastern Region of Ghana. The three colleges chosen have a combined student population of 4000 and 180 tutors.

### 3.6 Sample and Sampling Procedure

Denzin et al. (2008) defined a sample as a subset of a larger group or population that acts as a representation of the larger group. Yankey (2013), explains that sampling technique is a name or other evidence of the strategic method used to pick the units of a sample. Three Colleges of Education out of the Seven Colleges of Education in the study area were purposively chosen to participate in the study on the basis that, only these three Colleges of Education, namely, Abetifi College of Education, Presbyterian College of Education and Kibi College of Education offered Social Studies as elective course. The total number of students enrolled in Social Studies as an elective subject is 300, with a total of twenty five (25) Social Studies tutors (Field survey, 2022).

This study adopted a purposive sampling technique to choose the three Colleges of Education. Cohen et al. (2017). Also purported that Purposive Sampling Technique is the process of identifying special persons who are qualified to participate in a study based on their understanding of the subjects being investigated.

Census sampling was used to sample tutors and purposive sampling was employed to sample social studies students. From Creswell (2014), a census involves collecting data from every member of the population. Based on the researcher's own judgement, the researcher decided to sample all Social Studies Tutors because they have relevant information on the issue.

To participate in this study, all second-, third-, and fourth-year students in the three Colleges of Education were purposefully sampled. There was a total of 300 participants. Figure 3.1 depicts the breakdown of the sample size for the study.

The researcher chose levels 200, 300 and 400 students based on the assumption that they have spent at least one year or more receiving Social Studies instruction and hence have more experience on the topic under discussion. The level 100 Social Studies students were not included because they barely spent up to a year on campus. Averagely, 100 participants were sampled from each level. Table 3.1 shows the distribution of schools, teachers and students who participated in the research.

**Table 3.1: Breakdown of study population and their samples**

Names of Schools	School Code	Sample size	
		Teacher participants	Student participants
Abetifi College of Education	A	8	88
Presbyterian College of Education	B	9	119
Kibi College of Education	C	8	93
<b>Total</b>		<b>25</b>	<b>300</b>

**Source:** Field data (2022)

Participants were required to meet the following criteria. Tutor participants had to be teaching Social Studies as an elective course in one of these three Colleges of Education. Student participants were required to offer Social Studies as an elective course at the three Colleges of Education. Student participants needed to be in the above-mentioned year groups. The inclusion of all tutors from the sampled Colleges was supported by the study's goal of assessing each tutor's view of the integration of Multimedia resource in teaching and learning. They were also in an excellent position to evaluate the usefulness of multimedia resources in the teaching of Social Studies concepts, as well as elicit possible problems associated with employing multimedia resources in the institutions. Student participants on the other hand were involved in the study because they are directly involved in the teaching and learning processes through the use of multimedia resources, and their feedback will

validate the extent to which multimedia resources have enhanced effective teaching and engaging learners in the teaching of Social Studies concepts in Colleges of Education. In all, 325 participants, including 25 Social Studies tutors and 300 students participated in the study. The small target population and the aim to preserve participant privacy and identification prompted the careful selection of the sample size (Creswell, 2014).

### **3.7 Instruments for Data**

The study employed questionnaires and interviews to collect data. Questionnaires were used for both students and teachers to assess their perceptions regarding multimedia integration in Social Studies instruction. According to Davies et al. (2004), in survey research, 100 samples should be identified for each major sub-group in the population and between 20 and 50 samples for each minor sub-group. The study used the students for the major sub-group, which was 300, and the teachers as the minor-group, which was 25, because that was their total number.

Students' surveys focused on their exposure to multimedia resources and the influence of multimedia integration on their learning outcomes. Teacher surveys examined tutors' perceptions of the integration and frequency of multimedia resource use, the perceived influence of multimedia resources on students' learning outcomes as well as perceived barriers to their utilization. All statements were rated on a scale of 1 to 5, facilitating quantitative analysis.

The researcher conducted semi-structured in-depth interviews with Social Studies tutors to gain deeper insights into their experiences, perspectives, and practices regarding the integration of multimedia resources in Social Studies instruction (Creswell & Creswell, 2017). Semi-structured interviews allow for flexibility,

enabling the researcher to explore topics in detail while also ensuring consistency across interviews (Bryman, 2016). This approach facilitated a nuanced understanding of tutors' views on the efficacy, frequency, and barriers to the use of multimedia resources, providing rich qualitative data to complement the quantitative findings obtained from the surveys (Cohen et al., 2017). Additionally, through these interviews, the researcher could probe for specific examples and anecdotes, offering valuable context and depth to the study's findings (Patton, 2015). Overall, the use of semi-structured interviews enhanced the comprehensiveness and validity of the research by capturing the complexities and nuances of tutors' perspectives on multimedia integration in Social Studies education. The goal of gathering data from two distinct types of informants is a type of triangulation, thus 'data triangulation' to contrast the data and 'confirm' the data if it gives comparable conclusions.

### **3.7.1 Legitimization of Instruments**

Ensuring the validity and reliability of research instruments is crucial for the credibility of the study's findings. In this study, several steps were taken to legitimize the data collection instruments, including questionnaires and interview guides.

#### ***Validity***

Validity refers to the extent to which an instrument measures what it is intended to measure (Creswell & Creswell, 2018). To ensure content validity, the questionnaires and interview guides were developed based on a thorough review of relevant literature on multimedia integration in education. Expert reviews were conducted involving the researcher's supervisor and two researchers specializing in educational technology. Their feedback was used to refine the instruments, ensuring that all relevant aspects of multimedia integration in Social Studies instruction were covered comprehensively.

Construct validity was addressed by clearly defining the constructs to be measured and ensuring that the survey items accurately reflected these constructs.

### ***Reliability***

Reliability refers to the consistency of the measurement process (Cohen et al., 2017). To ensure reliability, the questionnaires were subjected to a test-retest procedure. The same group of respondents who participated in the pilot testing was asked to complete the questionnaire again after two weeks. The responses were then analysed using Cronbach's alpha to measure the internal consistency of the instrument. A Cronbach's alpha coefficient of 0.70 or higher was considered acceptable for reliability (Nunnally & Bernstein, 1994).

### ***Triangulation***

Triangulation was employed to enhance the credibility of the findings. Data triangulation involved collecting data from multiple sources, including students and tutors, and using both quantitative (questionnaires) and qualitative (interviews) methods. Methodological triangulation, which involves using more than one method to gather data, was also utilised to cross-verify the information obtained (Patton, 2015). This approach helped to mitigate potential biases and provided a more comprehensive understanding of the research problem.

## **3.8 Procedure for Data Collection**

### **3.8.1 Questionnaire**

For the questionnaire, students were provided with structured forms containing questions related to their perceptions of Multimedia Resource exposure and its influence on learning outcomes in Social Studies instruction (see Appendix A). The

questionnaire administered to students consisted of two main sections. In Section A, students provided demographic information.

In Part II, students were asked to rate statements related to their perceptions of the degree of exposure to multimedia resources in their Social Studies instruction consisting of 8 statements. Each statement was rated on a scale of 1 to 5, indicating the level of agreement or disagreement.

In Part III of the questionnaire (consisting of 8 statement), students were asked to rate statements regarding their perceptions of the influence of multimedia integration on their learning outcomes in Social Studies. Again, students rated each statement on a scale of 1 to 5, indicating their level of agreement or disagreement.

The questionnaire administered to tutors comprised four distinct parts (see Appendix B). The first part focused on gathering demographic characteristics of the tutors.

Following this, in the second part, tutors were presented with statements regarding their perceptions of the integration and frequency of use of Multimedia Resources in Social Studies instruction. This section consisted of eight items for tutors to rate on a scale of 1 to 5, indicating their level of agreement or disagreement with each statement.

The third part delved into tutors' perceptions of the perceived influence of Multimedia Resources on Social Studies instruction, comprising ten statements also rated on a scale of 1 to 5.

Finally, the fourth part explored tutors' perceptions of perceived barriers to the use of Multimedia Resources in Colleges of Education, with eight statements for rating on the same scale. Overall, the questionnaire encompassed a total of 26 items distributed

across the three parts, providing a comprehensive assessment of tutors' perceptions on multimedia integration in Social Studies instruction

### **3.8.2 Interview**

The qualitative instrument was one-on-one interviews with Social Studies tutors in the selected Colleges of Education to gain insight into their real-life experiences with the usage of multimedia resources in their lessons. This method of data collection is useful in qualitative research since it digs deeper into difficulties. To increase consistency of the interview process, an interview protocol was devised (See Appendix C). The interview protocol consisted of two parts. The first collected background information such as school details and teaching experience. The second part contained questions exploring tutors' perspectives on multimedia integration in Social Studies instruction, covering motivations, resource types, frequency of use, student reactions, impact on learning outcomes, and perceived barriers. A 30-minute semi-structured interview comprising eight (8) questions were used in the processes. All interviews were audio-recorded with the permission of the interviewees. Each interview was given a code, such as "Tutor 1, 21 November 2023". When more than one interview was conducted on a given day, the individual interviews were labelled as such. The researcher listened to the audio and took notes as quickly as feasible after each interview. The researcher transcribed crucial words, phrases, and assertions to allow study participants or informants' voices to be heard.

### **3.9 Data Analysis**

Data analysis involves organizing the large amounts of data obtained, coding it, tabulating it, analysing it and deriving conclusions from it. With the help of Statistical Package for Social Sciences (SPSS) version 22 software, quantitative data was

analysed, using descriptive statistics (Frequency Counts, Percentages, Mean and Standard Deviation), and implications were explored. These data were analysed, interpreted and reported based on the issues highlighted by respondents in response to the questions posed about the use of multimedia tools in assessing Social Studies concepts in the Colleges of Education.

The qualitative data from the study was organised into themes and research questions. Following data collection, descriptive, narrative, and analytical data interpretation methodologies were used to present the work for easy comprehension. Interviews and field notes were used to critically assess participants' ideas and comments. This procedure allows the researcher to organize the data across all respondents and their responses in order to find similarities and discrepancies (Kusi, 2012).

### **3.10 Ethical Consideration**

In order to conduct ethical research, the researcher obtained informed consent. Everyone who ended up becoming a participant agreed with the content and consented. The goal of the study and the interview techniques were then described. The researcher sought the consent of the participants at the beginning of their engagement on the topic of study. Informed consent was obtained from all participants, and they were informed of their right to withdraw from the study at any time without any repercussions (Bryman, 2016).

Ethical considerations were also integral to legitimizing the research instruments. Participants were assured of confidentiality and anonymity to encourage honest and accurate responses.

### 3.11 Positionality

Positionality refers to the acknowledgment and consideration of the researcher's own background, experiences, beliefs, and biases, and how these elements influence the research process and outcomes. In conducting this study on the integration of Multimedia Resources in Social Studies instruction in Colleges of Education in the Eastern Region of Ghana, it is crucial to reflect on my own positionality and its potential impact on the research.

As the primary researcher, I am a Social Studies educator with several years of experience in teaching and curriculum development within the context of Colleges of Education in Ghana. This background has provided me with in-depth knowledge of the educational landscape, the challenges faced by both tutors and students, and the potential benefits of integrating multimedia resources in teaching. However, my professional involvement in the field may also introduce certain biases, such as a predisposition towards recognizing the value of multimedia tools and an inherent belief in their effectiveness in enhancing teaching and learning outcomes.

To mitigate the influence of these biases, I employed several strategies throughout the research process:

**Reflexivity:** Throughout the study, I engaged in continuous reflexive practice, critically examining my own assumptions, beliefs, and potential biases. This involved maintaining a reflective journal where I documented my thoughts, reflections, and reactions during data collection and analysis. This practice helped in identifying and addressing any biases that might have influenced the interpretation of data.

**Triangulation:** By using multiple data collection methods (questionnaires and interviews) and sources (students and tutors), I aimed to triangulate the data, thereby

enhancing the validity and reliability of the findings. Triangulation helped to cross-verify the information obtained, reducing the likelihood of bias and providing a more comprehensive understanding of the research problem.

**Peer Review:** Engaging colleagues and experts in the field for peer review of the research instruments and findings helped to identify and mitigate potential biases. Their feedback provided valuable insights and contributed to ensuring the objectivity and rigor of the study.

**Transparency:** Being transparent about my positionality and its potential influence on the research process is crucial. By explicitly stating my background and possible biases, I aim to provide context for the interpretation of the findings and allow readers to critically assess the study's credibility and trustworthiness.

**Ethical Considerations:** Adhering to ethical research practices, such as obtaining informed consent, ensuring confidentiality and anonymity, and respecting participants' rights, was fundamental to maintaining the integrity of the research. These practices helped to foster a trusting relationship with participants, encouraging honest and accurate responses.

In conclusion, acknowledging and addressing my positionality as a researcher is essential in ensuring the credibility and trustworthiness of this study. By employing reflexivity, triangulation, peer review, transparency, and ethical considerations, I aimed to mitigate the potential influence of my background and biases, thereby enhancing the rigor and validity of the research on multimedia integration in Social Studies instruction in Colleges of Education in the Eastern Region of Ghana.

### **3.12 Summary of Methodology**

The methodology of the study was guided by a pragmatic paradigm, which acknowledges the limitations of single-paradigmatic research perspectives and advocates for the use of various approaches to address research objectives effectively. This approach informed the selection of appropriate research methodologies and data analysis procedures. The study employed a mixed-method approach, combining both quantitative and qualitative research methods to gather comprehensive data on the integration of multimedia resources in Social Studies instruction. Questionnaires were used to collect quantitative data from students and tutors, while semi-structured interviews provided qualitative insights from Social Studies tutors. The sample consisted of twenty five (25) Social Studies tutors and Three Hundred (300) students from three selected Colleges of Education in the Eastern Region of Ghana, chosen purposively based on their offering of Social Studies as an elective course. Data analysis involved descriptive statistics for quantitative data and thematic analysis for qualitative data, facilitating the organization and interpretation of findings. Ethical considerations were carefully addressed, ensuring informed consent and confidentiality of participants.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **4.0 Introduction**

Chapter Four delves into the results and discussions derived from the study's data. This section provides a comprehensive overview of the data collected from both students and tutors, analysing their perceptions, experiences and challenges in the integration of Multimedia resources in Social Studies instruction in Colleges of Education. The primary aim is to provide thorough analysis and interpretations of the gathered information to address the study's objectives effectively. By synthesizing the research outcomes with existing literature, the discussion contributes to the advancement of knowledge in the domain of Multimedia Integration in education. The subsequent sections present the study's findings in a structured manner, aiming to provide a clear understanding of the outcomes and their significance to the research's primary objectives.

#### **4.1 Demographic Characteristics of Respondents**

##### **4.1.1 Demographic Characteristics of Students**

The demographic characteristics of the student respondents, as outlined in Table 4.1, provide insights into the composition of the sample population. In terms of gender distribution, the majority of the respondents were female, accounting for 59% of the total sample, while male respondents comprised 41%. Regarding age distribution, the largest proportion of students fell within the age range of 27 to 30, representing 39% of the sample. The age groups of 24 to 26 and 20 to 23 constituted 32% and 19% of the respondents, respectively, while the smallest proportion was in the age range of 31 to 33, accounting for 10%. Concerning educational level, the respondents were fairly

distributed across different academic years, with Year 3 having the highest representation at 38%, followed closely by Year 2 at 31%, and Year 4 also at 31%.

These demographic characteristics provide an overview of the student sample, facilitating a better understanding of the study's findings within the context of the sample population's composition.

**Table 4.1: Demographic characteristics of students (n=300)**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	123	41%
	Female	177	59%
<b>Age range</b>	20 – 23	57	19%
	24 – 26	96	32%
	27 – 30	117	39%
	31 – 33	30	10%
<b>Educational Level</b>	Year 2	93	31%
	Year 3	114	38%
	Year 4	93	31%

**Source:** Field Data (2022)

#### **4.1.2 Demographic Characteristics of Tutors**

Table 4.2 provides the demographic characteristics of the tutor respondents, offering insights into their profile within the study. The sample comprised 25 tutors, representing 100% of the total respondents. Gender distribution among the tutors showed a majority of male respondents, accounting for 60% of the sample, while female tutors constituted 40%. In terms of age distribution, the tutors were spread across various age ranges, with 30-40 representing 26.7% of the sample. 41-50 age groups each representing 46.7% of the sample. The age brackets of 51-60 were represented by 26.7% of the respondents. Regarding years of teaching experience at the college level, the majority of tutors had between 6 to 10 years of experience,

comprising 33.3% of the sample. Tutors with 11 to 15 years of experience accounted for 26.7%, followed by those with 3 to 5 years at 20.0%, and 16 to 20 years at 20.0%. Finally, concerning the highest qualification, 86.7% of the tutors held a Master's degree, while 13.3% had a Doctorate degree. These demographic characteristics offer a comprehensive overview of the tutor sample, providing valuable context for interpreting the study's findings within the framework of the tutor respondents' profile.

**Table 4.2: Demographic characteristics of tutors (n=25)**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	14	56.0%
	Female	11	44.0%
<b>Age range</b>	30 – 40	7	28.0%
	41 – 50	11	44.0%
	51 – 60	7	28.0%
<b>Years of Teaching Experience at College</b>	3 – 5 years	6	24.0%
	6-10 years	11	44.0%
	11 – 15 years	4	16.0%
	16 – 20 years	4	16.0%
<b>Highest Qualification</b>	Master's Degree	21	84.0%
	Doctorate Degree	4	16.0%

**Source:** Field Data (2022)

## 4.2 Students' Perceptions Regarding the Use of Multimedia Resources by Tutors in Social Studies Lessons

The first research question sought to investigate students' perceptions regarding the use of multimedia resources by tutors in Social Studies lessons within Colleges of Education in the Eastern Region of Ghana. Table 4.3 presents the perceptions of students regarding the frequency of exposure to various multimedia resources in Social Studies instruction, gathered from a sample of 300 student participants.

**Table 4.3: Students' perceptions of the use of multimedia resources in class**

Statement	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	Mean (M)	SD
1. My tutor uses multimedia during instruction	76	165	11	36	12	2.1	1.1
2. My tutor makes use of Interactive boards.	132	68	17	48	35	2.3	1.5
3. My tutor uses animations and images.	97	137	8	42	16	2.1	1.2
4. My tutor makes use of audio-visual resources.	77	132	21	42	28	2.4	1.3
5. My tutor frequently uses slides and projectors.	12	41	19	131	97	3.9	1.1
6. My tutor makes us search for Social Studies content using the Internet.	74	129	10	63	24	2.4	1.3
7. We frequently receive and send our assignments through our emails.	82	167	0	33	18	2.1	1.1
8. We are often required to make presentations using multimedia resources as part of our coursework.	97	141	8	38	16	2.1	1.2
<b>Grand Mean/Grand SD</b>						<b>2.4</b>	<b>1.2</b>

Source: Field Data (2023)

Beginning with statement 1 ("My tutor frequently uses multimedia during instruction"), the mean score of 2.1 indicates a predominant disagreement or uncertainty among students. This is further reflected in the percentage breakdown, with 76 students strongly disagreeing and 165 disagreeing, constituting 80.3% of the total responses. The relatively low mean score is corroborated by the narrow standard deviation of 1.1, suggesting a consistent perception among students regarding the infrequent utilization of multimedia resources by tutors. Moving to statement 2 ("My tutor makes use of Interactive boards"), the mean score of 2.3 indicates a similar trend, albeit with a slightly higher level of agreement compared to statement 1. However, the percentage breakdown still leans towards disagreement or uncertainty, with 132 students strongly disagreeing and 68 disagreeing, constituting 66.7% of the total responses. The wider standard deviation of 1.5 suggests a more varied perception among students regarding the utilization of interactive boards, emphasizing potential discrepancies in experiences and understanding.

Similarly, statement 3 ("My tutor uses animations and images") presents a mean score of 2.1, with 97 students strongly disagreeing and 137 disagreeing, making up 78% of the total responses. This indicates a prevailing perception among students that animations and images are not extensively integrated into Social Studies instruction. The standard deviation of 1.2 reflects a relatively consistent perception, albeit with some variance among students. Moving forward, statement 4 ("My tutor makes use of audio-visual resources") exhibits a mean score of 2.4, with 77 students strongly disagreeing and 132 disagreeing, comprising 69.7% of the total responses. While there's a moderate level of agreement regarding their utilization, the wider standard deviation of 1.3 suggests varying perceptions among students, highlighting potential discrepancies in experiences and understanding.

In contrast, statement 5 ("My tutor frequently uses slides and projectors") stands out with a significantly higher mean score of 3.9, indicating a stronger agreement among students. With only 12 students strongly disagreeing and 41 disagreeing, and a notable number strongly agreeing (97) and agreeing (131), it suggests that slides and projectors are commonly employed multimedia resources in Social Studies instruction. Statement 6 ("My tutor makes us search for Social Studies content using the Internet") exhibits a mean score of 2.4, with 74 students strongly disagreeing and 129 disagreeing, comprising 67% of the total responses. This indicates a moderate level of agreement regarding the integration of internet searches for content. However, the wider standard deviation of 1.3 reflects varying perceptions among students. Regarding statement 7 ("We frequently receive and send our assignments through our emails"), the mean score of 2.1 suggests a prevailing tendency towards disagreement among students, with 82 students strongly disagreeing and 167 disagreeing, constituting 82.3% of the total responses. The narrow standard deviation of 1.1 indicates a consistent perception among students.

Lastly, statement 8 ("We are often required to make presentations using multimedia resources as part of our coursework") mirrors statements 1, 3, and 7 with a mean score of 2.1. While 97 students strongly disagree and 141 disagree, a moderate number agree or strongly agree (38 and 16, respectively). The standard deviation of 1.2 reflects a relatively consistent perception among students, albeit with some variance.

In summary, it is notable that across all statements, the majority of students tended towards the lower end of the scale, with the grand mean score of 2.4 indicating a general tendency towards disagreement regarding the frequency of exposure to multimedia resources in their Social Studies instruction. The relatively higher

standard deviation of 1.2 suggests some variability in students' perceptions, indicating differing viewpoints among the student population

### **4.3 Tutors' Perceptions of the Integration and Frequency of Use of Multimedia**

#### **Resources in Social Studies Instruction**

Table 4.4 provides valuable insights into tutors' perceptions regarding the integration and frequency of multimedia resources in Social Studies instruction. Across the eight statements, tutors' viewpoints vary, offering nuanced perspectives on the utilization of multimedia tools within their teaching practices. Commencing with Statement 1, "I frequently integrate multimedia resources into my Social Studies instruction," tutors overwhelmingly express agreement, with a mean score of 3.9 out of 5. This indicates a robust inclination towards incorporating multimedia elements, with approximately 80% of tutors agreeing or strongly agreeing with this statement.

In contrast, Statement 2, "I find interactive boards to be effective tools for enhancing Social Studies instruction," evokes a more varied response. Tutors display mixed opinions, with a mean score of 2.4, suggesting a lack of consensus on the effectiveness of interactive boards. Approximately 60% of tutors either agree or strongly agree, indicating a significant proportion with reservations. Similarly, Statement 3, "I utilize animations and images to supplement Social Studies lessons," reveals a divergence in opinions. Tutors tend to disagree with this statement, reflected by a mean score of 1.8. Approximately 85% of tutors either disagreed or strongly disagreed, highlighting a significant proportion that does not frequently utilize animations and images. Moving to Statement 4, "I incorporate audio-visual resources to enrich Social Studies instruction," also elicits a moderate level of agreement, with a mean score of 3.0.

About 60% of tutors agree or strongly agree, suggesting varied perspectives on the efficacy and frequency of integrating audio-visual resources.

**Table 4.4: Perceptions of tutors on the integration of the use of multimedia resources for Social Studies instruction**

<b>Statement</b>	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>	<b>Mean (M)</b>	<b>SDEV</b>
1. I frequently integrate multimedia resources into my Social Studies instruction.	0	5	0	11	9	3.9	1.0
2. I find interactive boards to be effective tools for enhancing Social Studies instruction.	7	9	0	6	3	2.4	1.4
3. I utilize animations and images to supplement Social Studies lessons.	6	9	0	10	0	1.8	0.9
4. I incorporate audio-visual resources to enrich Social Studies instruction.	4	8	0	8	5	3.0	1.5
5. I frequently use slides and projectors in my Social Studies teaching.	0	0	0	15	10	4.5	0.5
6. I encourage students to search for Social Studies content using the Internet as part of their learning experience.	0	0	0	18	6	4.2	0.4
7. Assignments are frequently distributed and collected electronically via email in my Social Studies classes.	8	15	0	3	3	2.3	1.2
8. I often require students to make presentations using multimedia resources as part of their coursework.	0	0	0	20	5	4.2	0.4
<b>Grand Mean/Standard Deviation (SDev)</b>						<b>3.3</b>	<b>0.9</b>

**Source:** Field Data (2022)

Statement 5, "I frequently use slides and projectors in my Social Studies teaching," tutors exhibit strong consensus, with a high mean score of 4.5. Around 90% of tutors agree or strongly agree with this statement, indicating widespread usage of these

traditional multimedia tools. Similarly, Statement 6, "I encourage students to search for Social Studies content using the Internet as part of their learning experience," garners significant agreement, with a mean score of 4.2. Nearly 90% of tutors endorse the encouragement of internet searches, recognizing their value in facilitating interactive learning experiences.

Meanwhile, Statement 7, "Assignments are frequently distributed and collected electronically via email in my Social Studies classes," portrays a nuanced viewpoint. Tutors express moderate agreement, with a mean score of 2.3. Approximately 50% of tutors agree or strongly agree, indicating a split perspective on the frequency of electronic assignment management.

Lastly, Statement 8, "I often require students to make presentations using multimedia resources as part of their coursework," resonates strongly with tutors, as evidenced by a high mean score of 4.2. Around 90% of tutors agree or strongly agree, highlighting widespread endorsement of multimedia presentations as valuable pedagogical tools.

In summary, the dataset highlights the diverse landscape of multimedia integration in Social Studies instruction, with tutors exhibiting varying degrees of agreement across different aspects. With a grand mean of 3.3, tutors express an overall sense of uncertainty regarding the integration and frequency of multimedia resources in Social Studies instruction. This suggests a lack of strong agreement or disagreement among tutors, leaning towards a neutral stance. Furthermore, the standard deviation of 0.9 indicates minimal variability in tutors' perceptions, highlighting a consistent level of neutrality across all statements.

## Interview Responses from Tutors

Regarding participants' thoughts on multimedia usage, they expressed diverse perspectives reflecting the potential benefits and challenges associated with its integration. Tutor 1 described:

*"I think multimedia resources are really helpful in Social Studies classes because they make learning more interesting and interactive. But to use them well, we need to plan ahead and make sure we have access to them at school, and that they match what students are learning."*

This sentiment was echoed by Tutor 3, who remarked:

*"In today's digital age, multimedia resources are incredibly useful for teaching and learning. They add a lot to our lessons, making them more interesting and meeting different ways students learn."*

Concerning the motivation for multimedia integration, participants raised that leveraging multimedia resources allows for more engaging and dynamic learning experiences. According to Tutor 4:

*"As educators, our aim is to make learning engaging and dynamic. Using multimedia resources helps me achieve that by accommodating different learning styles and keeping students interested in what we're studying."*

Similarly, Tutor 14 added:

*"Being able to project notes and access online resources instantly makes teaching much smoother. It lets me seamlessly incorporate extra materials and multimedia content to explain difficult concepts."*

Regarding the preferred multimedia resources, participants mentioned a combination of animations, images, and interactive simulations as showed in the survey report. Tutor 3 also emphasized, *"I encourage students to explore online databases and*

*educational websites to access supplementary materials related to our Social Studies topics."*

Regarding the frequency of multimedia usage, participants shared their efforts in integrating multimedia components regularly into their lessons. Tutor 8 emphasized:

*"The use of multimedia in my lessons, you see, allows for a more dynamic and engaging learning experience. Ooh, let me say, it really helps to clarify complex concepts and keep students interested"*

Similarly, Tutor 9 highlighted her commitment to integrating multimedia resources into her teaching, stating:

*"I make a conscious effort to include multimedia elements in my lessons consistently. While I may not use them in every session, I ensure that multimedia resources are utilized frequently enough to enhance student engagement and comprehension."*

On the belief in widespread usage of multimedia resources, participants raised their observations and reflections. Their responses highlighted the awareness among tutors regarding the potential benefits of multimedia resources, while also acknowledging the diverse factors that influence their widespread implementation in Social Studies instruction. Tutor 5 noted a statement similar to that of tutor 10 :

*"While I can't speak for all my colleagues, I believe many of them recognize the value of multimedia resources in Social Studies instruction. However, factors like access to technology and training may influence the extent to which multimedia is used across classrooms."*

Similarly, Tutor 12 shared their perspective, stating:

*"From my interactions with fellow educators, there's a general acknowledgment of the benefits of multimedia in teaching Social*

*Studies. However, the level of adoption varies depending on individual preferences, technological infrastructure, and institutional support."*

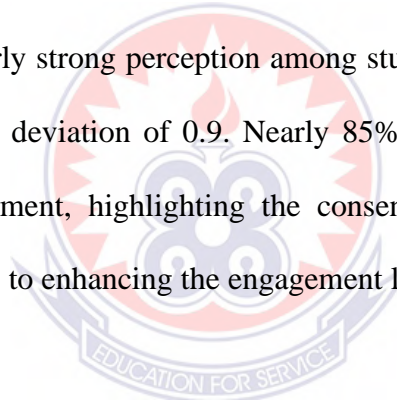
The interview findings from tutors provide qualitative depth to complement the quantitative survey results on multimedia integration in Social Studies instruction. Tutors expressed positive views on multimedia's benefits, such as enhancing engagement and accommodating diverse learning styles, aligning with their higher agreement in the survey on using slides, projectors, and internet searches. They highlighted motivations like making lessons dynamic and clarifying complex concepts, supporting their frequent use of multimedia resources reported in the survey. Preferences for animations, images, and interactive simulations in interviews echoed desires for more varied multimedia use seen in survey disparities. Interviews also noted efforts to integrate multimedia regularly, contrasting with mixed survey results on actual frequency. Acknowledging factors like technology access and training, interviews offered context for varied survey views on multimedia's effectiveness and implementation challenges. Together, these findings deepen the understanding of how tutors perceive and integrate multimedia in Social Studies, bridging qualitative insights with quantitative data to reveal nuances in multimedia use in educational contexts.

#### **4.4 Effects of Multimedia Integration on Student Learning Outcomes in Social Studies**

The research question focused on gathering data from both students and tutor participants to explore the effects of multimedia integration on student learning outcomes in Social Studies. This investigation aimed to examine how the use of multimedia resources influences students' academic performance and understanding

of Social Studies topics. The data from Table 4.5 presents students' perceptions regarding the influence of multimedia integration on their learning outcomes in Social Studies.

Starting with Statement 1 ("The use of multimedia tools enhances my understanding of Social Studies concepts"), the data reveals a resounding consensus among students, as evidenced by the high mean score of 3.9 and the narrow standard deviation of 1.0. Approximately 78% of students expressed agreement or strong agreement with this statement, indicating a prevailing perception of the beneficial role multimedia resources play in deepening comprehension within Social Studies. Moving to Statement 2 ("Multimedia tools make Social Studies lessons more engaging"), the data indicates a similarly strong perception among students, with a mean score of 4.1 and a narrow standard deviation of 0.9. Nearly 85% of students agreed or strongly agreed with this statement, highlighting the consensus that multimedia resources contribute significantly to enhancing the engagement level of Social Studies lessons.



**Table 4.5: Effects of Multimedia Integration on Student Learning Outcomes in Social Studies**

<b>Statement</b>	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>	<b>Mean (M)</b>	<b>SDEV</b>
1. The use of multimedia tools enhances my understanding of Social Studies concepts.	7	36	22	138	7	3.9	1.0
2. Multimedia tools make Social Studies lessons more engaging.	10	13	17	153	10	4.1	0.9
3. Multimedia tools help me retain information better in Social Studies classes.	11	33	35	89	11	4.0	1.2
4. I feel more motivated to participate in Social Studies classes when multimedia tools are used.	17	45	56	137	17	3.5	1.1
5. It provides a great motivation to learn Social Studies.	8	26	22	156	8	4.0	1.0
6. It facilitates learning anytime and anywhere.	0	26	37	141	0	4.0	0.9
7. The use of multimedia improves my learning outcomes (test score) in Social Studies.	16	34	28	165	16	3.7	1.1
<b>Grand Mean (M)/ Standard Deviation (SDev)</b>						<b>3.9</b>	<b>1.0</b>

**Source:** Field Data (2023)

Regarding Statement 3 ("Multimedia tools help me retain information better in Social Studies classes"), students exhibited a notable agreement, reflected in the mean score of 4.0 and the standard deviation of 1.2. Approximately 79% of students expressed agreement or strong agreement with this statement, indicating a prevailing belief in the efficacy of multimedia resources for aiding memory retention in Social Studies. Moving to Statement 4 ("I feel more motivated to participate in Social Studies classes when multimedia tools are used"), the data reveals a moderate level of agreement among students, with a mean score of 3.5 and a standard deviation of 1.1. Around 70% of students agreed or strongly agreed with this statement, suggesting that while

multimedia integration enhances motivation to some extent, there may be variability in its impact across different student cohorts.

Considering Statement 5 ("It provides great motivation to learn Social Studies"), the data demonstrates a strong consensus among students, with a mean score of 4.0 and a standard deviation of 1.0. Nearly 79% of students agreed or strongly agreed with this statement, highlighting the pervasive perception that multimedia integration serves as a potent motivator for learning Social Studies. Moving on to Statement 6 ("It facilitates learning anytime and anywhere"), the data indicates a strong agreement among students, with a mean score of 4.0 and a standard deviation of 0.9. Approximately 85% of students agreed or strongly agreed with this statement, emphasizing the widespread belief in the flexibility and accessibility afforded by multimedia resources in facilitating learning beyond the confines of the traditional classroom setting.

Finally, considering Statement 7 ("The use of multimedia improves my learning outcomes (test score) in Social Studies"), the data reveals a moderate level of agreement among students, with a mean score of 3.7 and a standard deviation of 1.1. Around 73% of students agreed or strongly agreed with this statement, indicating a prevailing perception that multimedia integration positively influences learning outcomes in Social Studies. However, the variability in responses suggests that while multimedia resources may contribute to improved test scores for many students, their impact may vary depending on individual learning styles and preferences

With a grand mean score of 3.9 and a standard deviation of 1.0, the data from students' perceptions regarding the influence of multimedia integration on their learning outcomes in Social Studies indicates a notable level of agreement across all

statements. This suggests a prevailing consensus among students regarding the positive impact of multimedia resources on various aspects of their learning experiences. The relatively low standard deviation further indicates a consistent level of agreement among students, highlighting the robustness of their perceptions regarding the efficacy of multimedia integration in enhancing learning outcomes in Social Studies.

#### **4.5 Barriers to the Use of Multimedia Resources in Social Studies Instruction**

The final research question explored tutors' perceptions of the barriers to effective use of multimedia resources in Social Studies instruction. Table 4.6 provides a comprehensive overview of these perceptions, highlighting various challenges faced by tutors in integrating multimedia tools into their teaching practices. Statement 1 underscores the significant hindrance posed by limited access to multimedia equipment, with all tutors strongly agreeing (SA) or agreeing (A) to this statement. The high mean score of 4.5, coupled with a narrow standard deviation of 0.5, indicates a unanimous consensus among tutors on this issue. In statement 2, concerning the insufficient training and support provided to tutors resulting in ineffective integration of multimedia resources, it's notable that 80% of tutors either agreed or strongly agreed with this sentiment.

**Table 4.6: Tutors perception on the barriers to the use of multimedia resources**

Statement	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	Mean (M)	SDEV
1. Limited access to multimedia equipment hinders their effective utilization in Social Studies classes.	0	0	0	20	5	4.5	0.5
2. Insufficient training and support provided to tutors result in ineffective integration of multimedia resources.	0	0	7	10	8	4.0	0.6
3. Inadequate availability of relevant and up-to-date multimedia content for Social Studies topics poses a challenge.	0	0	5	12	8	4.3	0.6
4. Technical issues disrupt the smooth implementation of multimedia resources.	0	0	0	5	20	4.6	0.5
5. Time constraints and curriculum demands limit the extent of multimedia tools incorporation.	0	0	6	8	11	4.2	0.7
6. Resistance to change among tutors and students hinders the adoption of multimedia resources.	8	6	0	8	9	2.8	1.5
7. Lack of awareness or understanding of the benefits of multimedia integration inhibits its effective utilization.	5	3	0	10	10	2.8	1.4
8. Limited financial resources allocated for multimedia equipment procurement and maintenance hinder their utilization.	0	0	4	9	12	4.3	0.6
<b>Grand Mean (M)/Standard Deviation (SDev)</b>						<b>3.9</b>	<b>0.8</b>

**Source:** Field Data (2023)

The mean score of 4.0 suggests a significant acknowledgment of this barrier, indicating a prevalent perception among tutors. The narrow standard deviation of 0.6 reinforces the consistency of this perception, highlighting the need for enhanced professional development and support structures to empower tutors in effectively integrating multimedia resources into Social Studies instruction. Similarly, statement 3 emphasizes the challenge of inadequate availability of relevant and up-to-date multimedia content, with 90% of tutors agreeing or strongly agreeing.

The mean score of 4.3, accompanied by a standard deviation of 0.6, suggests a high level of agreement among tutors regarding this barrier. Technical issues, as outlined in statement 4, are also deemed significant, with all tutors agreeing (A) or strongly agreeing (SA) to this statement. The mean score of 4.6 and a standard deviation of 0.5 reflect a strong consensus among tutors on the disruptive nature of technical issues. Moreover, time constraints and curriculum demand, highlighted in statement 5, emerge as limiting factors, with 90% of tutors agreeing or strongly agreeing. The mean score of 4.2, alongside a standard deviation of 0.7, indicates a substantial level of agreement among tutors regarding this barrier.

In contrast, statements 6 and 7 shed light on internal barriers, such as resistance to change among tutors and students, and lack of awareness or understanding of the benefits of multimedia integration. While these barriers are acknowledged, the mean scores of 2.8 for both statements suggest a more diverse range of perceptions among tutors. The higher standard deviations of 1.5 and 1.4, respectively, indicate greater variability in tutors' responses to these issues. Finally, statement 8 underscores the financial constraints faced by institutions, with 90% of tutors agreeing or strongly agreeing to this statement. The mean score of 4.3 and a standard deviation of 0.6 suggest a notable level of agreement among tutors regarding this barrier.

Overall, the grand mean score of 3.9 indicates a prevailing acknowledgment among tutors of the multifaceted challenges hindering the effective utilization of multimedia resources in Social Studies instruction. The relatively low standard deviation of 0.8 further suggests a consistent level of concern and consensus among tutors regarding these barriers.

## Interview Responses from Tutors

When asked about the hesitancy among Social Studies teachers to utilize multimedia in class, participants shared a common sentiment regarding the various barriers they encounter. Their comments aligned with the survey data, providing real-world insights into the specific obstacles faced by tutors in integrating multimedia resources into their teaching practices in the Colleges of Education in the study area. Tutor 5 expressed frustration, citing limited access to multimedia equipment as a real hindrance to their teaching creativity. She lamented:

*"Limited access to multimedia equipment is a big problem. Imagine having cool ideas for class, but you can't use them because the tech is old or there just isn't enough of it. It's frustrating!" This frustration is something many teachers feel when they're stuck with not having functional tools to make lessons fun and interactive."*

Tutor 8 added:

*"Exactly, the lack of appropriate ICT infrastructure limits what we can do in class. Without access to essential tools like computers and projectors, it's challenging to create interactive learning experiences for students."*

Additionally, participants mentioned inadequate ICT-ready classrooms as a barrier to effective multimedia integration, noting the lack of classrooms equipped with the necessary technology and infrastructure to support multimedia learning. According to

Tutor 12:

*"Our classrooms are not designed for multimedia integration. There are no interactive whiteboards or audio-visual equipment, which makes it hard to engage students in interactive learning activities."*

Participants raised concerns about inadequate internet bandwidth, citing it as a barrier to effective multimedia integration. They shared that slow or unreliable internet connections hindered their ability to access online resources, conduct research, or stream multimedia content during lessons. According to Tutor 7:

*"I often face challenges with slow internet speeds in the classroom. It's frustrating when I can't access the online resources I need for my lessons, especially when trying to show videos or interactive simulations."*

Tutor 8 added:

*"Yes, inadequate internet bandwidth is a real problem. There are times when I have to abandon planned activities because the internet is too slow to load the multimedia content. It disrupts the flow of the lesson and affects student engagement."*

Participants emphasized the challenge of time constraints and curriculum demands.

According to Tutor 14:

*"Social Studies teachers often have packed schedules and strict curriculum requirements to adhere to. Finding the time to research, select, and incorporate multimedia resources into lessons can be daunting. Some teachers may avoid using multimedia simply because they feel they don't have the time to properly implement it."*

Some tutors acknowledged the resistance to change among teachers and students alike, emphasizing the need to embrace innovation for improved learning outcomes.

Tutor 4 shared:

*"From my experience, one major reason is the lack of access to adequate training and support. Many tutors especially our colleagues who were "born before computer" feel unprepared or unfamiliar with how to effectively integrate multimedia tools into their lessons. Without*

*proper training, they may hesitate to use these resources, fearing they won't be able to leverage them effectively."*

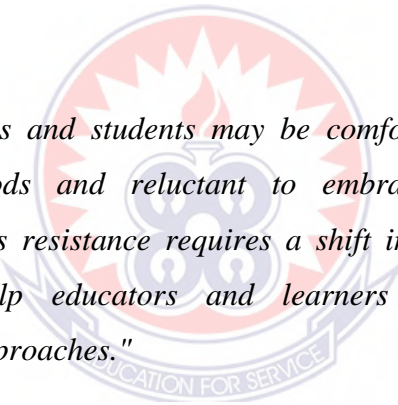
Similarly, Tutor 15 nodded in agreement, adding:

*"Absolutely, and it's not just about having the equipment. Without proper training and support, it's like having a toolbox with no instructions. We need more support to make the most of what we have."*

Participants shared that addressing the challenges associated with the integration of Multimedia Resources in Social Studies instruction requires a comprehensive approach. This approach encompasses several key components, including training, support, awareness-building and a shift in pedagogical mindset.

Tutor 2 shared:

*"Some teachers and students may be comfortable with traditional teaching methods and reluctant to embrace new technologies. Overcoming this resistance requires a shift in mindset and ongoing support to help educators and learners adapt to innovative instructional approaches."*

The logo of the University of Education, Winneba, is a circular emblem. It features a central sunburst or starburst design in white and red. Below the sunburst is a shield with a blue and white pattern. The shield is flanked by two figures, possibly representing students or educators. The entire emblem is set against a red background. Below the emblem, the text "UNIVERSITY OF EDUCATION" is written in a semi-circle, and "FOR SERVICE" is written in a smaller semi-circle below that.

Additionally, Tutor 8 emphasized the importance of awareness and understanding of the benefits of multimedia integration:

*"Many teachers may not fully grasp the potential benefits of incorporating multimedia into their lessons. Without awareness of how multimedia resources can enhance student engagement and learning outcomes, they may not prioritize their use. Increasing awareness and providing examples of successful integration can help alleviate this barrier."*

The interview findings from tutors regarding barriers to the effective use of multimedia resources in Social Studies instruction align closely with the quantitative survey data, providing nuanced insights into the challenges faced by educators in integrating multimedia tools.

In the interviews, tutors consistently highlighted limited access to multimedia equipment as a significant obstacle, echoing the survey result where all tutors agreed or strongly agreed (SA) that this limitation hinders effective utilization (mean score 4.5). Their frustrations with outdated or insufficient technology directly correlate with the quantitative findings, emphasizing the practical implications of inadequate resources on teaching creativity and lesson interactivity. Similarly, concerns over insufficient training and support for tutors were reflected in both the interviews and the survey. Eighty percent of tutors in the survey agreed or strongly agreed that insufficient training impacts the integration of multimedia resources (mean score 4.0), echoing tutors' comments about feeling unprepared and lacking the necessary skills to effectively leverage multimedia tools in teaching.

Interview responses also mirrored the survey findings on other barriers such as inadequate availability of relevant multimedia content, technical issues disrupting lessons, time constraints, and curriculum demands. Tutors discussed these challenges in real-world contexts, citing examples of how these barriers hinder their ability to incorporate multimedia effectively into their teaching practices. Moreover, internal barriers like resistance to change among tutors and students, as well as lack of awareness or understanding of multimedia benefits, were more varied in the interview responses. This variability aligns with the higher standard deviations observed in these survey statements (1.5 and 1.4 respectively), indicating diverse perceptions among tutors regarding these internal barriers.

Overall, the qualitative insights from interviews provide a deeper understanding of the practical implications and personal experiences related to multimedia integration barriers, reinforcing and contextualizing the quantitative survey data. Together, these findings underscore the multifaceted challenges tutors face in adopting multimedia resources in Social Studies instruction, highlighting the need for comprehensive support strategies to enhance their effective use in educational settings.

#### **4.7 Discussion of Findings**

##### **4.7.1 Objective 1: Students' perceptions regarding the use of multimedia resources by tutors in social studies lessons**

The study revealed that students generally perceive a limited integration of multimedia resources in their Social Studies lessons. Across various statements, such as the use of multimedia during instruction, interactive boards, animations and images, and audio-visual resources, students indicated a predominant disagreement or uncertainty regarding their frequency of exposure to these tools. For instance, statements like "My tutor frequently uses multimedia during instruction" and "My tutor makes use of animations and images" garnered mean scores around 2.1, suggesting that a significant majority of students either disagreed or were uncertain about the regularity of multimedia usage in their classes.

This perception highlights a potential gap between tutor intentions and student experiences. While tutors expressed willingness to integrate multimedia resources, students perceived less frequent utilization. Such discrepancies could stem from varying interpretations of what constitutes multimedia use or actual differences in practice across classrooms. The narrower standard deviations across most statements (around 1.1 to 1.3) indicate consistent perceptions among students, albeit with some

variability in responses, implying a shared understanding among students about the current state of multimedia integration.

Furthermore, the notably higher mean score of 3.9 for the statement "My tutor frequently uses slides and projectors" suggests that traditional multimedia tools like slides and projectors are more commonly employed. This indicates a potential disparity in the types of multimedia resources students perceive as being used regularly versus those that are less frequently integrated into instruction, such as interactive boards or animations

The grand mean score of 2.4 indicates a moderate level of exposure, suggesting that while multimedia tools are used to some extent, there is room for improvement in terms of frequency and variety. This finding resonates with De Sousa et al. (2017) case study, which emphasized the impact of multimedia use on teaching and learning outcomes at the tertiary level.

#### **4.7.2 Objective 2: Tutors' perceptions on the integration of multimedia resources in social studies instruction**

Tutors' perspectives, as indicated by their responses in the survey, reflect a more positive outlook towards the integration of multimedia resources in Social Studies instruction compared to students. Across statements such as the integration of multimedia resources, the use of interactive boards, animations and images, and audio-visual resources, tutors generally expressed varying levels of agreement. For instance, the high mean score of 3.9 for the statement "I frequently integrate multimedia resources into my Social Studies instruction" indicates a strong inclination among tutors to incorporate multimedia elements into their teaching practices. This

aligns with their views on the effectiveness of traditional tools like slides and projectors, where a mean score of 4.5 suggests widespread use and endorsement.

However, there are areas where tutors' perceptions diverge, such as the use of animations and images (mean score of 1.8) and interactive boards (mean score of 2.4). These lower scores indicate varying levels of agreement among tutors, suggesting that while some see value in these resources, others may face barriers or prefer different instructional methods. The consistency in tutors' perceptions, as indicated by a lower standard deviation (around 0.9), suggests a more unified viewpoint compared to students. This coherence could stem from professional experiences and training that shape their understanding and implementation of multimedia in educational settings.

Overall, tutors' perspectives gleaned from both interview data and survey responses underscore a generally positive outlook towards the integration of multimedia resources in Social Studies instruction. However, there is noticeable variability in their perceptions regarding the effectiveness of specific tools. This aligns with Goodova et al. (2015) emphasis on the transformative role of multimedia resources in enriching educational experiences in the contemporary era beyond mere literacy. Strengthening support mechanisms and providing comprehensive training in multimedia utilization could empower tutors to harness these resources more effectively. This, in turn, has the potential to bridge existing gaps between tutor practices and student expectations, ultimately enhancing educational outcomes in Social Studies education.

### **4.7.3 Objective 3: effects of multimedia integration on student learning outcomes in Social Studies**

The third objective of the study investigated the impact of multimedia integration on student learning outcomes in Social Studies within Colleges of Education in the Eastern Region of Ghana. The findings highlight a consistent positive perception among both students and tutors regarding the influence of multimedia resources on various facets of learning.

Students overwhelmingly perceive multimedia tools as beneficial for enhancing their understanding of Social Studies concepts. This finding underscores the consensus among students that multimedia resources play a pivotal role in clarifying and deepening comprehension. Similarly, students find multimedia tools highly engaging, reflecting their belief that multimedia enhances the interactive and stimulating nature of Social Studies lessons. Moreover, students attribute improved retention of information to multimedia use, indicating its effectiveness in aiding memory recall and reinforcing learning.

Furthermore, students express increased motivation to participate in Social Studies classes when multimedia tools are employed, albeit with some variability noted among individual responses. Importantly, students highlight multimedia integration as a motivating factor for learning Social Studies, emphasizing its role in fostering enthusiasm and interest in the subject. Moreover, students perceive multimedia resources as conducive to flexible learning environments, underscoring their versatility and accessibility beyond traditional classroom settings. Lastly, students believe that multimedia integration positively impacts their learning outcomes in Social Studies, though acknowledging differences in its effectiveness among peers.

Tutors' perspectives align closely with those of students, emphasizing the positive influence of multimedia resources on teaching effectiveness, student understanding, engagement, and retention. Tutors also underscore the motivational benefits of multimedia tools, supporting flexible learning environments, and enhancing overall student learning outcomes in Social Studies.

The interview responses from tutors further corroborate the survey findings, emphasizing the observable benefits of multimedia integration in the classroom. Tutors observe that students respond positively to multimedia tools, exhibiting increased engagement and participation when interactive or visual aids are utilized. This aligns with the findings of Boateng et al. (2016), who found that students at the University of Ghana had positive perceptions and attitudes towards using videos for learning in higher education contexts. Additionally, the tutors' observations regarding the impact of multimedia resources on student understanding and retention resonate with Nyarko et al. (2021), who explored the use of multimedia as a pedagogical tool for teaching and learning mathematics in Colleges of Education.

Moreover, tutors highlight the broader implications of multimedia integration on student learning outcomes, emphasizing its role in promoting independent inquiry, catering to diverse learning styles, and facilitating deeper conceptual understanding. These findings align with previous studies conducted by Ogunwuyi (2022), Ofori (2021), Atubi and Obro (2020) and Ediyang and Effiom (2017), which underscore the importance of multimedia resources in modern education and highlight the need for addressing barriers to their effective utilization. The insights gleaned from both the survey data and interview responses underscore the transformative potential of

multimedia integration in Social Studies instruction, paving the way for more student-centered and effective teaching practices in Colleges of Education

#### **4.7.4 Barriers to the use of multimedia resources in social studies instruction**

On the final research question for the study, the findings from both the survey data and the interview responses shed light on the multifaceted barriers faced by tutors in effectively integrating multimedia resources into Social Studies instruction within Colleges of Education. These barriers encompass various dimensions, including limited access to equipment, insufficient training and support, inadequate ICT infrastructure, technical issues, time constraints, resistance to change, and lack of awareness of the benefits of multimedia integration.

Firstly, the survey data in Table 4.7 reveals high mean scores across several statements, indicating that tutors perceive these barriers as significant obstacles to the effective utilization of multimedia resources. For instance, limited access to multimedia equipment, inadequate training and support, and technical issues received mean scores above 4.0, underscoring the severity of these challenges. The interview responses further elucidate the nature of these barriers and provide real-world insights into their impact on teaching practices. Tutors express frustration and limitations due to factors such as limited access to multimedia equipment, inadequate ICT infrastructure, and slow internet bandwidth. These challenges hinder their ability to create interactive and engaging learning experiences for students.

Additionally, time constraints and curriculum demands emerged as prominent barriers, with tutors struggling to find the time to research, select, and incorporate multimedia resources into their lessons. This aligns with the findings of Akram et al. (2021b), who found that teachers often report a lack of time to effectively utilize

multimedia resources in their instructional practices. Furthermore, resistance to change among both tutors and students poses a significant barrier to the adoption of multimedia resources. Tutors may feel unprepared or unfamiliar with how to integrate multimedia tools into their lessons, as mentioned by some tutors. This aligns with the findings of Hassan (2021), who identified inadequate technological competencies as a challenge faced by faculty members in adopting multimedia resources in their instructional practices.

Addressing these barriers requires a comprehensive approach that encompasses training, support, awareness-building, and a shift in pedagogical mindset. Tutors emphasize the need for ongoing support and professional development to enhance their technological competencies and pedagogical practices. Increasing awareness of the benefits of multimedia integration and providing examples of successful integration can also help alleviate resistance to change and promote widespread adoption of multimedia resources.

In conclusion, the study's findings underscore the significant role of multimedia integration in enriching Social Studies education by fostering student engagement, enhancing understanding, and improving learning outcomes. The alignment between student and tutor perceptions highlights the potential of multimedia resources to support effective teaching practices and cater to diverse learning needs in contemporary educational settings.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.0 Introduction**

This chapter presents the summary of the study, key findings, conclusion, recommendations, implications for teaching and learning, limitations of the study and suggestions for further studies.

#### **5.1 Summary of the Study**

This section provides a brief overview of the study's key findings, followed by the conclusion drawn from these findings. Additionally, recommendations are offered based on the study's results and suggestions for future research to enhance understanding in the field. The study delved into utilising multimedia resources in Social Studies instruction within Colleges of Education (COE) in Ghana's Eastern region. It aimed to understand student perceptions of this integration and its impact on learning outcomes while assessing tutors' perspectives and identifying barriers to multimedia use. Employing a mixed-methods approach, the study involved twenty five (25) Social Studies tutors and Three Hundred (300) students from three selected COEs: Abetifi, Presbyterian, and Kibi College of Education. Data was collected through questionnaires and interviews, with analysis using qualitative and quantitative methods. The subsequent section presents the key findings derived from the study,

#### **5.2 Key Findings**

1. Regarding students' perceptions of multimedia resource usage by tutors in Social Studies lessons, the study revealed a prevailing tendency towards disagreement or uncertainty among students regarding the frequency of exposure to multimedia resources. Despite some variation in perceptions,

indicated by moderate standard deviations, the mean scores generally suggest that students perceive multimedia resources to be underutilized in their Social Studies instruction.

2. Concerning objective 2, the study revealed that there was a sense of uncertainty among tutors regarding the integration and frequency of multimedia resources in Social Studies instruction. Tutors generally agree on the frequent use of traditional multimedia tools like slides and projectors in Social Studies instruction. However, there is a lack of consensus on the effectiveness and utilization of other multimedia resources. Overall, there is a consensus among tutors on the value of multimedia resources in enhancing Social Studies instruction, although the extent of adoption varies depending on individual preferences and institutional support.
3. On the effects of multimedia integration on student learning outcomes in Social Studies, the study revealed from both students and tutors indicated that multimedia integration positively influences learning outcomes. Both students and tutors perceive multimedia tools as enhancing understanding, engagement, memory retention, motivation to participate, and overall academic success in Social Studies. Additionally, tutors noted that multimedia tools cater to diverse learning styles, promote independent inquiry, and contribute to overall academic growth.
4. With regards to barriers to the use of multimedia resources in Social Studies instruction, the study revealed that tutors face significant challenges such as limited access to equipment, insufficient training, technical issues, time constraints, and curriculum demands. Additionally, internal barriers like

resistance to change and limited appreciation of the benefits of multimedia integration were noted.

### **5.3 Conclusion**

Concerning students' perceptions of multimedia resource usage by tutors, the prevailing tendency towards disagreement or uncertainty underscores a potential gap between pedagogical intentions and student experiences. Despite moderate variations, the overall perception of underutilisation suggests a disconnect between the availability of multimedia resources and their effective integration into instructional practices.

The uncertainty among tutors regarding the integration and frequency of multimedia resources reflects the complexity of instructional decision-making and the diverse approaches employed within the educational landscape. While traditional multimedia tools like slides and projectors are commonly used, there is a lack of consensus on the effectiveness and utilisation of other multimedia resources, highlighting the need for clearer guidelines and support mechanisms.

The positive impact of multimedia integration on student learning outcomes, as perceived by both students and tutors, signifies the potential of these resources to enhance understanding, engagement, and academic success. However, the variability in the extent of adoption and the presence of barriers, such as limited access to equipment and insufficient training, indicate the need for targeted interventions to maximise the benefits of multimedia integration.

Identifying barriers to using multimedia resources underscores the importance of addressing systemic challenges and fostering a supportive environment for innovation and pedagogical experimentation. From resistance to change to technical constraints,

these barriers illuminate the complex interplay of individual, institutional, and contextual factors shaping instructional practices.

#### **5.4 Recommendations**

The study outlines the following recommendations;

1. Educational Administrators should regularly gather student feedback on multimedia usage in Social Studies through surveys or focus groups. This data should drive faculty development initiatives to enhance pedagogy and student engagement.
2. Curriculum Developers and educational policymakers should collaborate to establish clear guidelines and standards for integrating multimedia resources in Social Studies instruction. Additionally, professional development programs should be designed to support tutors in effectively utilising various multimedia tools and technologies.
3. Colleges of Education should allocate resources to procure and maintain multimedia equipment and infrastructure. Furthermore, instructional designers should collaborate with faculty to develop multimedia-rich learning experiences that cater to diverse learning styles and promote a deeper understanding of Social Studies concepts.
4. Educational Policymakers should prioritise investment in faculty training and development programs focused on multimedia integration in Social Studies instruction. Additionally, colleges should establish support structures, such as dedicated technical support teams and funding opportunities, to address infrastructure-related barriers and promote a culture of innovation in teaching and learning.

### **5.5 Implications for Teaching and Learning**

While the study offers valuable insights into the perceptions and effects of multimedia resource usage in Social Studies instruction, it also points towards the need for holistic approaches to address the challenges and capitalise on the opportunities presented by multimedia integration. By recognising the nuanced dynamics at play and adopting strategic interventions informed by the study's findings, educational stakeholders can work towards creating inclusive, engaging, and effective learning environments conducive to student success and academic excellence.

### **5.5 Limitations of the Study**

Rarely does one study provide all the information about an issue of interest. This means that limitations are issues and matters that go beyond the reach and control of a researcher and therefore limit the outcome of a study and the conclusions drawn (Theofanidis & Fountouki, 2018).

Among the issues encountered include: some respondents were reluctant to answer the questionnaires due to their busy schedules. Although some questionnaires were retrieved late, it did not have any negative bearing on the study.

Again, the distance of from one College of Education to another in the Eastern Region was a barrier to the success of the study.

Lastly, only three out of seven Colleges in the Eastern Region offer Elective Social Studies due to this, the target population was limited and for that matter the study cannot be generalized due the small sample size.

### **5.7 Areas for Further Studies**

1. Future research could investigate the impact of tailored training initiatives on enhancing tutors' proficiency in multimedia integration for Social Studies instruction.
2. It is imperative that these studies are undertaken across various cultural and socioeconomic contexts to examine the universal applicability of findings and to tailor recommendations accordingly.
3. Future studies should encompass longitudinal research designs to track the long-term impact of multimedia integration on student learning outcomes and to identify trends over time.



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## APPENDICES

### APPENDIX A

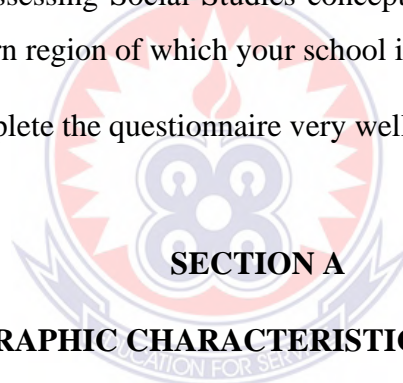
#### Questionnaire for Students

#### MULTIMEDIA INTEGRATION BY TUTORS IN SOCIAL STUDIES INSTRUCTION: EVALUATING STUDENT PERCEPTIONS AND LEARNING OUTCOMES IN COLLEGES OF EDUCATION

Dear Student,

The following questionnaire is intended solely for research purposes. This survey is being used to gather information to explore the perspective of Social Studies tutors and students on the usage, and efficacy of multimedia resources and factors limiting the use of its use in assessing Social Studies concepts in some sampled Colleges of Education in the Eastern region of which your school is one.

Please help me to complete the questionnaire very well. Thank you



#### SECTION A

#### DEMOGRAPHIC CHARACTERISTICS OF STUDENT

Please CHECK [] in the boxes that honestly describe you.

1. What is the name of your college?  
Kibi College of Education [  ]  
Abetifi College of Education [  ]  
Presbyterian College of Education [  ] What is your gender? Male [  ]  
Female [  ]
2. Age range: Below 20 yrs. [  ] 20 -25 [  ] 26 -30 [  ] Above 30 [  ] Which level are you in?  
Level 200 [  ] Level 300 [  ] Level 400 [  ]
3. Which program are you offering? .....

**PART II****Students Perceptions of the Degree of Exposure to Multimedia Resource.****Instructions**

For the following items, please respond according to how you perceive the frequency of exposure to resource in Social Studies instruction. Rate each statement on a scale of 1 to 5.

**1= Strongly Disagree 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree**

If you feel neutral or undecided about a statement, you may select the "Neutral" option (3).

Your honest and thoughtful responses will greatly contribute to our understanding of multimedia usage in Social Studies instruction.

Please CHECK (✓) in the boxes that reflect your thinking

Statement	1	2	3	4	5
1. My Social Studies tutor frequently uses multimedia during instruction					
2. My tutor makes use of Interactive boards.					
3. My tutor uses animations and images.					
4. My tutor makes use of audio-visual resources.					
5. My tutor frequently uses slides and projectors.					
6. My tutor makes us search for Social Studies content using the Internet.					
7. We frequently receive and send our assignments through our emails.					
8. We frequently receive and send our assignments through our emails.					

**PART III****Students Perception on the influence of multimedia integration on student learning outcomes**

Rate each statement on a scale of 1 to 5. Rate each statement on a scale of 1 to 5. 1= Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

Please CHECK (✓) in the boxes that shows your concern.

<b>Statement</b>	<b>1 (Strongly Disagree)</b>	<b>2 (Disagree)</b>	<b>3 (Neutral)</b>	<b>4 (Agree)</b>	<b>5 (Strongly Agree)</b>
1. The use of multimedia tools enhances my understanding of Social Studies concepts.					
2. Multimedia tools make Social Studies lessons more engaging.					
3. Multimedia tools help me retain information better in Social Studies classes.					
4. I feel more motivated to participate in Social Studies classes when multimedia tools are used.					
5. It provides a great motivation to learn Social Studies.					
6. It facilitates learning anytime and anywhere.					
7. The use of Multimedia can extend the knowledge I acquire about a particular concept of the subject.					
8. The use of multimedia improves my learning outcomes (test score) in Social Studies.					

## APPENDIX B

### Questionnaire for Tutors

#### MULTIMEDIA INTEGRATION BY TUTORS IN SOCIAL STUDIES

#### INSTRUCTION: EVALUATING STUDENT PERCEPTIONS AND LEARNING OUTCOMES IN COLLEGES OF EDUCATION

Dear Tutor,

The following questionnaire is intended solely for research purposes. This survey is being used to gather information to explore the perspective of Social Studies tutors and students on the usage, efficacy of multimedia resources and factors limiting its use in assessing Social Studies concepts in some sampled Colleges of Education in the Eastern region of which your school is one.

Please help me to complete the questionnaire very well. Thank you



#### PART I

#### DEMOGRAPHIC CHARACTERISTICS OF TUTOR

Please CHECK (✓) in the boxes that honestly describe you.

1. College of education

Kibi College of Education [ ]

Abetifi College of Education [ ]

Presbyterian College of education [ ]

2. What is your gender? Male [ ] Female [ ]

3. Age range 30 - 40 [ ] 41 - 50 [ ] 51 - 60 [ ]

4. What is your highest qualification?

Master's Degree [ ] Doctorate Degree [ ]

5. Length of teaching experience at the College

3-5years [ ] 6-10years [ ] 11-15years [ ] 16-20years [ ]

## PART II

### Perceptions of Tutors Regarding the Integration and Frequency of Use of Multimedia Resources in Social Studies Instruction within Colleges of Education in the Eastern Region of Ghana

For the following items, please respond according to how you perceive the integration of multimedia resource in Social Studies instruction. Rate each statement on a scale of 1 to 5.

**1= Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree**

Please CHECK (✓) in the boxes that reflect your thinking

Statement	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
1. I frequently integrate multimedia resources into my Social Studies instruction.					
2. I use interactive boards for enhancing Social Studies instruction.					
3. I utilize animations and images to supplement Social Studies lessons.					
4. I incorporate audio-visual resources to enrich Social Studies instruction.					
5. I frequently use slides and projectors in my Social Studies teaching.					
6. I encourage students to search for Social Studies content using the Internet as part of their learning experience.					
7. Assignments are frequently distributed and collected electronically via email in my Social Studies classes.					
8. I often require students to make presentations using multimedia resources as part of their coursework.					

### PART III

#### Tutors Perception on the Perceived Influence of Multimedia Resources

Rate each statement on a scale of 1 to 5.

**1= Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree**

Please CHECK (✓) in the boxes that reflect your thinking

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
1. I feel more motivated to incorporate multimedia tools in my Social Studies instruction when planning lessons.					
2. Using multimedia tools improves my job performance.					
3. The use of multimedia tools enhances students' understanding of Social Studies concepts.					
4. Multimedia tools contribute to increased engagement among students in Social Studies classes.					
5. The use of multimedia tools positively impacts students' retention of information in Social Studies classes.					
6. It provides great motivation for students to learn Social Studies.					
7. Multimedia tools facilitate flexible learning environments for students.					
8. The use of multimedia extends students' knowledge about specific Social Studies concepts.					
9. The use of multimedia improves students' learning outcomes (test scores) in Social Studies.					
10. Multimedia tools permit easy explanation and learning of Social Studies concepts					

**PART IV****Tutors Perception on Perceived barriers to the use of Multimedia Resources in Colleges of Education**

Rate each statement on a scale of 1 to 5.

**1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree**

Please CHECK (✓) in the boxes that reflect your thinking

<b>Statement</b>	<b>1 (Strongly Disagree)</b>	<b>2 (Disagree)</b>	<b>3 (Neutral)</b>	<b>4 (Agree)</b>	<b>5 (Strongly Agree)</b>
1. Limited access to multimedia equipment hinders their effective utilization in Social Studies classes.					
2. Insufficient training and support provided to tutors result in ineffective integration of multimedia resources.					
3. Inadequate availability of relevant and up-to-date multimedia content for Social Studies topics poses a challenge.					
4. Technical issues disrupt the smooth implementation of multimedia resources.					
5. Time constraints and curriculum demands limit the extent of multimedia tools incorporation.					
6. Resistance to change among tutors and students hinders the adoption of multimedia resources.					
7. Lack of awareness or understanding of the benefits of multimedia integration inhibits its effective utilization.					
8. Limited financial resources allocated for multimedia equipment procurement and maintenance hinder their utilization.					

## APPENDIX C

### Interview Guide for Teachers

#### MULTIMEDIA INTEGRATION BY TUTORS IN SOCIAL STUDIES INSTRUCTION: EVALUATING STUDENT PERCEPTIONS AND LEARNING OUTCOMES IN COLLEGES OF EDUCATION

Dear Tutor,

This interview guide is intended solely for research purposes. This survey is being used to gather information to explore the perspective of Social Studies tutors and students on the usage, efficacy of multimedia resources and factors limiting its use in assessing Social Studies concepts in some sampled Colleges of Education in the Eastern region of which your school is one.

Please help me with your response. Thank you.

#### SECTION A - BACKGROUND INFORMATION OF TEACHERS

- **Name of school:**  
.....
- **Name of teacher (Pseudonym):**  
.....
- **Sex:** Male: [ ] Female: [ ]
- **Highest Academic Qualification:**
- **Number of years teaching Social Studies:** .....
- **Date for Interview:** .....

## SECTION B

1. *What are your thoughts on the usage of multimedia resources in Social Studies instruction?*
2. *Why are you motivated to employ multimedia in the classroom? (If you use it)*
3. *What type of multimedia resource do you often use in your class?*
4. *How frequently do you utilize multimedia in your classroom?*
5. *Do you believe the use of multimedia resources is widespread among your colleagues in Social Studies lessons?*
6. *How do your students react to them when used?*
7. *Which areas of the student accomplishment are directly influenced by multimedia resource?*
8. *Why are most Social Studies teachers hesitant to utilize multimedia in class?*
9. *What are the concerns and obstacles in ensuring multimedia-based instruction in this college?*

