

Research Article

# Teachers' Technological, Pedagogical and Content Knowledge in the Junior High School Social Studies Curriculum

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**Abstract:** Knowledge of the content alone is no guarantee for effective teaching and learning, there is the need for teachers to demonstrate high level of technological and pedagogical power. The study examined the technological pedagogical content knowledge of Social Studies teachers' in Junior High Schools in Aowin municipality in the Western North Region of Ghana. The descriptive survey design was used for the study. The population for the study included all Social Studies teachers in the public Junior High Schools in the Aowin Municipality. Simple random and purposive sampling techniques were used to select the Seventy-four (74) Junior High Schools and Seventy-four (74) the Social Studies teachers for the study. The main instrument for data collection was questionnaire. The study revealed that, teachers have adequate content knowledge to teach Social Studies but there are doubts as to whether their knowledge is current. The study also concluded that, teachers were not confident about their technological, pedagogical and content knowledge in Social Studies and this resulted in their negative attitude towards the integration of technology in classroom activities. It is recommended that, the Ghana Education Service should organize In-Service Training and refresher courses for teachers to keep them current and up-to-date their content knowledge in Social Studies. It is also recommended that, teachers should adopt positive attitudes towards learning and using technology in their day-to-day activities.

**Keywords:** Technological, Pedagogical, Content, Knowledge, Junior High School, Social Studies Curriculum

**How to cite this paper:** Bakar, A., Adams, F. H., Tetteh-Osei, F., Ochour, B. K., Ansah, P. O., & Asabere, I. K. (2022). Teachers' Technological, Pedagogical and Content Knowledge in the Junior High School Social Studies Curriculum. *Universal Journal of Social Sciences and Humanities*, 2(1), 34–45. Retrieved from <https://www.scipublications.com/journal/index.php/ujssh/article/view/301>

**Received:** March 31, 2022

**Accepted:** May 16, 2022

**Published:** May 18, 2022



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## 1. Introduction

The global concern among scholars in this contemporary world is the ability and skills of learners to learn about issues and problems about themselves, their immediate and remote internal society and international community [1]. Arguably, learners need a unique and peculiar type of education which will enable them to participate effectively in life. The educational reforms of 1987 in Ghana brought in its wake the introduction of Social Studies as a core subject at the Junior Secondary School. In 1997, it became a core subject at the Senior Secondary School. In Ghana today, there has been general consensus that the fundamental purpose of Social Studies is Citizenship Education [2]. In the context of Ghana, Social Studies is a citizenship education which aims at producing reflective, competent, responsible and participatory citizens" [3]. This goes to support the view of the National Council for Social Studies in United State of America that: the primary

purpose of Social Studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse democratic society in an interdependent world [4].

A student-centered and inquiry-based teaching approach is suggested to enhance students' motivation and engagement, and foster human values and connectedness with personal and societal issues. Research has proven teaching and learning practices may be applied while fostering morals, values and ethics. This implies that teaching techniques, methods and issues with examples based on research, and suggested views which may impact on fostering values, morality and ethics in students' minds, and enhance student motivation and engagement. While it is important to implement the teaching techniques and methods, it is also necessary that teachers are well aware of and regularly informed about new emerging issues, instructional methods and techniques. This may help teachers to develop conceptual tools in the context of teaching morals, values, ethics and character education in teaching and learning [5]. Teacher of Social Studies needs to possess a philosophy of the subject of teaching and learning. The philosophy provides guidance and direction in choosing objectives, and nature of assessment. The development and survival of the state depends upon the attitudinal change which the various subjects including Social Studies through instructional processes build in learners [6].

In order for students to get understanding of facts, concepts and generalisations taught in Social Studies to develop positive attitudes in them, their teachers need to have a strong pedagogical content knowledge in Social Studies [6]. In a classroom setting, a crucial factor for a successful integration of educational technology into teaching is the teacher because she/he directly determines the best instructional practices for the students [7]. Given that teachers are the instructional drivers in the classroom, it is important to help prepare teachers in acquiring technological expertise to better facilitate the learning of the diverse students in the classroom [8]. This knowledge comes from Social Studies courses, education courses, experience, and professional development. This goes to support the view of the National Council for the Social Studies that, the methods course for Social Studies teachers' preparation should focus on the "pedagogical content knowledge that deals specifically with the nature of Social Studies and with ideas, strategies, and techniques for teaching Social Studies at the appropriate level" [4]. Pedagogical content knowledge as the "blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented and adapted to the diverse interests and abilities of learners, and presented for instruction" [9].

The emphasis of Social Studies is on developing the relevant knowledge, skills, attitudes, and values that will enable learners to make reflective decisions and act on them to solve both their personal and societal problems. Therefore, Social Studies in the school setting has a unique responsibility for providing students with the opportunity to acquire knowledge, skills, attitudes and values to function effectively within their local and national society in an interdependent world [6]. Despite the important recognition of social studies in the Ghanaian school system in the form of making it a core subject, personal observation suggests that, the impact of social studies is not being realized. There are increased incidences of environmental destructive behaviours, armed robbery, prostitution and corruption in Ghana. It seems instances of such social vices are becoming an accepted norm. This brings to question how social studies is taught. One aspect of teaching which is key to the realization of our goals is assessment. While it serves various purposes, its core function is to support and enhance student learning [10].

The profile dimensions in the Social Studies Common Core Programme Curriculum (Basic 7 - 10) require that teachers put more emphasis on learners to acquire knowledge through learning experiences. They may also show understanding of concepts by comparing, summarising and re-writing in their own words and constructing meaning from instruction. The learner may also apply the knowledge acquired in some new

contexts [11]. This seems not to be the case in face of growing negative behaviours by students even in the school. What seems to be the problem is the lack of knowledge especially about the goals of Social Studies by some teachers in the classroom. This worrying situation has triggered a lot of research mostly on the knowledge (technological, pedagogical and content) of the teacher [12]. It appears little or no research has been carried out on how the knowledge of the teacher influence how he/she assesses the students in Social Studies despite the argument that, teachers' classroom practices are related to their knowledge of the subject matter (content) and of teaching (pedagogy) [13]. This study therefore sought to fill this literature gap by investigating the technological pedagogical content knowledge of the Social Studies teacher in basic schools in Aowin Municipality in the Western North Region Ghana. The purpose of the study was to examine the technological pedagogical content knowledge of Social Studies teachers' in Social Studies in the Junior High School level in Aowin Municipality. The study sought to answer these three (3) research questions - (1) What is the content knowledge of Social Studies teachers at the Junior High School level? (2) What is the pedagogical knowledge of social studies teachers at the Junior High School level? (3) What is the technological, pedagogical content knowledge of social studies teachers at the Junior High School level?

## 2. Technological, Pedagogical Content Knowledge

The Social Studies curriculum will enable learners to develop skills and competencies through a combination of social constructivism and social realism. These theories emphasise learning as an active process where the learner constructs knowledge rather than acquiring it. Learners will take responsibility for the environment, appreciate the richness and the diversity of Ghana's culture. They will also be willing to take advantage of social changes relating to globalisation, technological advancement and digital literacy. It is envisioned that the curriculum will promote the development of a holistic worldview of learners to make them creative, honest and responsible citizens. It is expected that learners will demonstrate competencies in making independent and healthy choices regarding their personal development and well-being. By developing awareness of themselves, their immediate and wider environment, they become national and global citizens. Learners are to be guided to maximise the opportunities offered by new technologies to express their beliefs and further enhance their moral perspectives and values. The teacher should emphasise these important areas in the day-to-day learning as they are aimed at promoting higher order thinking among learners [11].

This is the knowledge about the subject matter that is to be learned or taught [14]. Content Knowledge (CK) refers to the body of information that teachers teach to students in a given subject area such as facts, concepts, theories, and principles [15]. A Content Knowledge (CK) strategic thinking incorporates knowing when, where, and how to use domain-specific knowledge and strategies for guiding students' learning with appropriate digital, information and communication technologies [16]. Content knowledge is the knowledge of the subject matter curriculum including key concepts, facts, and procedures. Content Knowledge (CK) is teachers' knowledge about the subject matter to be learned or taught. It includes knowledge of concepts, theories, conceptual frameworks as well as knowledge about accepted ways of developing knowledge. Pedagogy Knowledge (PK) of the social studies teachers is the knowledge about the processes and practices or methods of teaching [14]. Shulman explained that pedagogical knowledge refers to the broad principles and strategies of classroom management and organization and involves lesson planning and implementation, teaching methods, and assessment. Pedagogy Knowledge (PK) is teachers' knowledge about the processes and practices of teaching and learning. It includes knowledge about techniques used in the classroom; the nature of learners; and strategies for evaluating student understanding.

Technology Knowledge (TK) is teachers' knowledge about how to use technology in the classroom. Teachers have to understand information technology broadly enough to

apply it productively in their classrooms and also have the knowledge on how to adapt the purpose of technologies so that they can be used in a technology enhanced way. In addition, a number of researchers stated that teachers need experiences with consistent modeling of effective use and practice of technology in order to become familiar enough with the use of different forms of technology and see the wider range of affordances available [17]. Furthermore, it was found that teachers were more likely to learn and adopt the use of technology when the individual teacher's instructional goal was taken into account, as well as when a community of practice was established to promote the collaborations and reflections during or after the technology education course [18, 19]. The domain of knowledge of technology, which includes the working knowledge and skills needed to use technologies [14].

Teachers' use of technology has offered pedagogy as a role to play out in classroom contexts and to understand the variance in levels of technology integration in education. [14]. TK therefore, requires a deeper, more essential understanding and mastery of information technology for information processing, communication, and problem solving than does the traditional definition of computer literacy. Most standard professional development workshops in educational technology and teacher training technology courses tend to focus on the acquisition of such skills [14]. However, the development of relevant TK requires the ability to learn and adapt to new technologies since technology is frequently changing [20]. Most teachers lack confidence in technology as well as their technology skills. According to them, only 23 percent of teachers surveyed feel prepared to integrate technology into their instruction. Those who use technology do so primarily to present information rather than to provide hands-on learning for students. Some are unclear about policies governing the use of technology. Others are uncomfortable with investing instructional time to deal with possible equipment failures or slow Internet access. Clearly, more of an investment in technology training and technical support needs to be factored into K-12 funding and resource allocation [21].

This is the knowledge about what teaching approaches fit the content and how elements of the content can be arranged for better teaching. The Pedagogical Content Knowledge (PCK) defines teacher's ability to pedagogically adapt content to students of diverse abilities rather than just delivering subject content knowledge [22]. PCK included those special attributes a teacher possessed that helped him/her guide a student to understand content in a manner that was personally meaningful. Shulman wrote that PCK included "an understanding of how particular topics, problems, or issues are organized, presented, and adapted to the diverse interests and abilities of learners, and presented for instruction" [9]. Pedagogical content knowledge refers to how to teach particular content to make it understandable. The intersecting domains of content knowledge and pedagogical knowledge provide the key to successfully teaching in a disciplinary area like Social Studies. Pedagogical Content Knowledge (PCK) is teachers' knowledge of subject-oriented teaching methods. Teachers need to know how to apply the knowledge of pedagogy to the teaching of specific content. PCK covers teaching, learning, curriculum, assessment and the links among curriculum, assessment, and pedagogy [9].

Pedagogical content knowledge includes an understanding of what makes the learning of specific topics easy or difficult; the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons [23]. PCK covers the core business of teaching, learning, curriculum, assessment and reporting, such as the conditions that promote learning and the links among curriculum, assessment, and pedagogy [14]. The key to distinguishing the knowledge base of teaching lies at the intersection of content and pedagogy which includes understanding why some learners experience difficulties when learning a particular concept, while others find it easy to assimilate knowledge about useful ways to conceptualize and represent a chosen concept [24].

This is the teachers' knowledge of using technology with different learning subjects. Teachers must have a deep understanding of the manner in which the subject matter can be changed by the application of particular technologies. They also need to understand which specific technologies are suited for addressing subject-matter learning in their domains. The choice of technologies affords and constrains the types of content ideas that can be taught, likewise, certain content decisions can limit the types of technologies that can be used [14]. Consequently, social studies teachers need to master more than the subject matter they teach; they must also have a deep understanding of the manner in which the subject matter can be changed by the application of particular technologies [25].

This is teachers' knowledge of using technology with different teaching methods. Teachers must understand how teaching and learning change when particular technologies are used in particular ways. TPK includes knowing the pedagogical affordances and constraints of a range of technological tools as they relate to disciplinarily and developmentally appropriate pedagogical designs and strategies [26]. Technological pedagogical knowledge (TPK) is knowledge of the existence, components, and capabilities of various technologies as they are used in teaching and learning settings, and conversely, knowing how teaching might change as the result of using particular technologies in a particular way [14]. TPK becomes particularly important because most popular software programs (example, Word, PowerPoint, Excel etc.) are not designed for educational purposes but are usually designed for the business environments. Most software tools are rarely created as solutions to pedagogical problems, as a result converting these general tools for classroom teaching is neither trivial nor obvious; it requires the teacher to engage with the affordances and constraints of particular technologies in order to creatively repurpose these technologies to meet specific pedagogical goals of specific content areas [27].

Technological, Pedagogical Content Knowledge (TPACK) is defined as understanding the connections and interactions between and among content knowledge (subject-matter that is to be taught), technological knowledge (computers, the Internet, digital video, etc.), and pedagogical knowledge (practices, processes, strategies, procedures and methods of teaching and learning) to improve student learning [14]. The Technological Pedagogical Content Knowledge (TPACK) framework represents a new way of thinking about preparing teachers to teach and learn with technology. The TPACK framework advocates the incorporation of the three fundamental knowledge types among teachers, content knowledge (CK), pedagogy knowledge (PK), and technology knowledge (TK), and emphasizes the importance of the interactions and the complexities among all three basic knowledge domains. In other words, the TPACK framework goes beyond looking at these three knowledge domains in isolation but examines the new kinds of knowledge that gather at the intersections between and among the three domains, PCK, technological content knowledge (TCK), technological pedagogical knowledge (TPK), and TPACK, with the understanding that effective and quality teaching lies in TPACK, as noted by [14].

Although TPACK begins with the T (technology), the framework does not reflect on intent that technology be the driver of instructional decisions; in fact, it is quite the contrary. A study reviewed literature on teacher planning and the use of digital technology and concluded that effective planning was primarily organized by learning activities and content goals. Consistent with the framework that emphasized the interaction of content, pedagogy, and technology knowledge, they recommended beginning with learning goals and activities in a content area and then selecting and using digital tools and other resources to help teacher and students meet the learning goals [28]. Thus, teacher in-services too often emphasized the use of technology in isolation from content area learning outcomes. A similar point when they said that one reason new technologies have failed to transform education is because "most innovations have focused exceedingly on the technology rather than more fundamental issues of how to

approach teaching subject matter with these technologies" [14, 29]. They also have tried to show the complexity of the teaching process by suggesting that the goal is an empowered teacher who has a deep knowledge of the content and who can envision the approach that will help her students best learn this material, and finally use the technologies that can help students achieve the outcomes of the lesson. TPACK (Technological Pedagogical Content Knowledge) is teachers' knowledge of using technology with different teaching methods in accordance with subject content [14, 29].

Technological Pedagogical Content Knowledge (TPACK) is the basis of effective teaching with technology, requiring an understanding of the representation of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help redress some of the problems that students face; knowledge of students' prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge to develop new epistemologies or strengthen old ones [14]. TPACK represents a class of knowledge that is central to the social studies teachers' work with technology. Other researchers have argued that knowledge about technology cannot be treated as context-free and that good teaching requires an understanding of how technology relates to the pedagogy and content [27, 30]. Thus, social studies teachers need to develop fluency and cognitive flexibility not just in each of the key domains (TK, PK, and CK) of the TPACK framework, but also in the manner in which these domains and contextual parameters interrelate, so that they can construct effective solutions to students' mathematical problems [31, 32].

Teachers relevant knowledge toward technology integration in schools will help them to implement Information and Communication Technology in their classroom practice. However, the success of this implementation will improve students' performance, during the lessons. [27, 33]. Teachers' attitudes toward technology in school, such as gender and age, had an indirect impact affecting teachers' level of confidence and knowledge had leverages to change or to construct the non-heritably acquired characteristics of a person (such as confidence and knowledge), which had a possibility to change the attitudes and beliefs of a person [33, 34]. However, teachers' high level of ICT motivates students' in learning comparison with the level of teachers' non-usage of ICT in the classroom. This implies that students would be dissatisfaction from the studying process due to teacher's inability to use this technology effectively and creatively [33, 35]. In another study, more than half of the teachers surveyed did not believe that their pre-service programs prepared them well in either technology or 21st century skills [36]. Yet, only 20 percent of states require technology training or testing for recertification or participation in technology-related professional development [37]. Teachers with different attitudes toward and beliefs about the usefulness of ICT in instructional contexts leads to high levels of student competences. This posits that teachers' beliefs about the accessibility and usefulness of digital information promote enhancement of learning that improve students' skills and achievement. [38]. Recently, researchers and educators have devoted more attention to how technology can be used to engage students in alternative ways. Specifically, a number of studies have examined how digital games can be used to present content in new and engaging ways.

### 3. Materials and Methods

The descriptive survey design was used for the study. The population for the study included all Social Studies teachers at the public Junior High Schools in the Aowin Municipality. Simple random and purposive sampling techniques were used to select the junior high schools and the Social Studies teachers for the study. Seventy-four (74) public Junior High schools were conveniently selected out eighty-nine (89) school. The remaining fifteen (15) schools were not selected because accessibility became a problem, this did not affect the validity and reliability of the study once all the Junior High Schools uses

homogenous curriculum. All the seventy-four (74) Social Studies teachers in the selected Junior High Schools were purposively selected for the study. The main instrument for data collection was questionnaire. The analysis of the data collected was guided by the research questions. Results were presented using frequency counts and percentages. The means and standard deviations was also calculated to describe the direction of response.

#### 4. Results and Discussions

##### 4.1. Content Knowledge of Social Studies Teachers at the Junior High School Level

This section sought to find out the content knowledge of Social Studies teachers that are relevant to the teaching and learning of the subject on the research question - *What is the content knowledge of Social Studies teachers at the Junior High School level?* Data from the responses of the teachers to the questionnaire provided relevant information that indicated the content knowledge of the social studies teachers. The section of the questionnaire that focused on this question had six items. The items were generally written in positive form with the responses on a five-point Likert scale measure with Strongly Disagree (SD) taking "1", Disagree (D) takes code 2; Undecided(U) taking 3; Agree (A) takes code 4 and Strongly Agree (SA) taking code 5. The individual items relating to the research question were analysed using frequencies, percentages and means. The mean of means was used to analyse the general content knowledge of the teachers. A mean score range of between 1.0 and 1.50 is indicative of strongly disagree, 1.51 to 2.50 is indicative of disagree, 2.51 to 3.5 is indecision, 3.51 to 4.50 is agree and from 4.51 to 5.0 is indicative of strongly agree. [Table 1](#) presents the content knowledge of the Social Studies teachers.

**Table 1.** Content knowledge of social studies teachers.

Statement	SD (%)	D (%)	U (%)	A (%)	SA (%)	M	SD
Social Studies is an integration of the social science disciplines and the humanities.	1 (1.4)	1 (1.4)	1 (1.4)	36 (48.6)	35 (47.3)	4.39	.72
I have various ways and strategies of developing my understanding of social studies		1 (1.4)	6 (8.1)	48 (64.9)	19 (25.7)	4.15	.61
I can use a historical way of thinking		14 (18.9)	23 (31.1)	22 (29.7)	15 (20.3)	3.51	1.02
The purpose of the Social Studies education is to prepare learners for life.				39 (52.7)	35 (47.3)	4.47	.50
I have adequate knowledge in social studies		5 (6.8)	24 (32.4)	35 (47.3)	10 (13.5)	3.68	.80
I have up-to-date knowledge in social studies	1 (1.4)	11 (14.4)	41 (55.4)	20 (27.0)	1 (1.4)	3.12	.72

(Group Mean = 3.89; Group SD = 0.54)

Results from [Table 1](#) reveal that 36 teachers representing 48.6% agreed that the content of social studies is an integration of disciplines from the social sciences. Another 35 (47.3%) strongly agreed to the assertion that the content of social studies is an integration of disciplines from the social sciences. A mean score of 4.39 implies that, the teachers agreed that social studies is an integration of content from the social sciences. [Table 1](#) further reveals that 48 teachers representing 64.9% of the teachers agreed that they possess ways and strategies of developing an understanding of social studies. This suggests that, majority of the teachers have developed conceptual understanding of the content of social studies. Similar results were recorded for using a historical way of thinking, knowledge of the purpose of social studies for students and having adequate knowledge in social studies. However, 41 of the teachers representing 55.4% of the

teachers were undecided as to the whether they possessed up-to-date knowledge of the content of social studies. This recorded a mean score of 3.12 pointing to a state of indecision. This seemingly lack of confidence of having up-to date knowledge suggests to some extent an inherent weakness in technology. The basis for this argument stems from the fact, in this era of technological advancement, most current issues are found in the internet. Therefore, knowledge in the use of technology coupled with the right attitude can propel a teacher to remain current in his/her field of study. A group mean score of 3.89 suggests that, the teachers possess adequate content knowledge to teach social studies at the Junior High School level. The finding of the study is in contrast to a similar research on Social Studies Teachers' Content Knowledge in Senior High Schools in the Sekondi-Takoradi Metropolis in the Western Region of Ghana published in *American Journal of Social Science Research* reported that, many Social Studies teachers lack the content knowledge to teach social studies since they do not know what the general objectives of the subject are [39]. Also, they therefore do not select facts which address the attainment of these goals and objectives. The study however confirms the findings on a previous study that majority of the Social Studies teachers, 108 (83%) that participated in her study had sufficient knowledge of the social studies subject with (M= 4.10; SD=0.6) within the curriculum of the school [40]. Content knowledge refers to the deep understanding a teacher has regarding the subject matter, including facts, concepts, and structures within the subject. Knowledge' is a form of connective knowledge that extends teachers' basic knowledge about other fields prior to constructing collaborative learning [9]. This knowledge is usually attained during teacher preparation studies, but may also be reinforced through content specific professional development opportunities [41]. This means that those who were not certain as to whether they updated their knowledge or not might not have considered the various options open to them in upgrading their knowledge.

#### **4.2. Pedagogical Knowledge of Social Studies Teachers at the Junior High School Level**

This section presents finding and discussions on the research question- *What is the pedagogical knowledge of social studies teachers at the Junior High School level?* Pedagogical knowledge is a vehicle through which the teacher conveys the content to the students. This question sought to find out the pedagogical knowledge of social studies teachers that are relevant to the teaching of social studies. Data from the responses of the teachers to the questionnaire provided relevant information that indicated the content knowledge of the Social Studies teachers. The section of the questionnaire that focused on this question had seven items. The items were generally written in positive form with the responses on a five-point Likert scale measure with Strongly Disagree (SD) taking "1", Disagree (D) takes code 2; Undecided(U) taking 3; Agree (A) takes code 4 and Strongly Agree (SA) taking code 5. The individual items relating to the research question were analysed using frequencies, percentages and means. The mean of means was used to analyse the general content knowledge of the teachers. A mean score range of between 1.0 and 1.50 is indicative of strongly disagree, 1.51 to 2.50 is indicative of disagree, 2.51 to 3.5 is indecision, 3.51 to 4.50 is agree and from 4.51 to 5.0 is indicative of strongly agree. Table 2 presents the pedagogical knowledge of the social studies teachers.

Table 2 reveals that 51(68.9%) of the teachers agreed that they how to assess the performance of their students. Two of the teachers representing 2.7% however disagreed to this assertion. This recorded a mean score of 4.18 suggesting that on the average, teachers professed knowledge of assessing their students. Items that recorded similar results included adapting teaching based on what students understand or did not understand (M= 3.99, SD= 0.67); assessing students learning in different ways (M= 4.12, SD= 0.86); using a wide range of teaching approaches in a classroom setting (M= 3.97, SD= 0.74); knowing how to organize and maintain classroom management (M= 4.19, SD= 0.73) and knowing the rationale for teaching social studies (M= 3.97, SD= 0.81). However, the

teachers were undecided ( $M = 3.35$ ,  $SD = 0.29$ ) on the assertion that they are familiar with common students understanding and misconception about social studies. A group mean of 3.97 suggests that social studies teachers had adequate pedagogical knowledge in teaching social studies. This is not different from the findings on a similar study that rated the pedagogical competence of social studies teachers as high [40].

**Table 2.** Pedagogical knowledge of social studies teachers.

Statement	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	SD
I know how to assess student performance in a classroom	2 (2.7)		1 (1.4)	51 (68.9)	20 (27.0)	4.18	.71
I can adapt my teaching based on what students understand or do not understand		1 (1.4)	14 (18.9)	44 (59.5)	15 (20.3)	3.99	.67
I can assess student learning in different ways	3 (4.1)		5 (6.8)	43 (58.1)	23 (31.1)	4.12	.86
I can use a wide range of teaching approaches in a classroom setting		4 (5.4)	9 (12.2)	46 (62.2)	15 (20.3)	3.97	.74
I am familiar with common students understanding and misconceptions about social studies	1 (1.4)	12 (16.2)	30 (40.5)	22 (29.7)	9 (12.2)	3.35	.94
I know how to organise and maintain classroom management		2 (2.7)	8 (10.8)	38 (51.4)	26 (35.1)	4.19	.73
I know the rationale for teaching social studies at the basic level.	1 (1.4)	2 (2.7)	13 (17.6)	40 (54.1)	18 (24.3)	3.97	.81

(Group Mean = 3.97; Group SD = 0.29)

#### 4.3. Technological, Pedagogical and Content Knowledge of Social Studies Teachers at the Junior High School Level

This section also presents findings and discussions on the research question - *What is the Technological, Pedagogical and Content Knowledge of social studies teachers at the Junior High School level?* In this era of technological advancement, there is the need for the Social Studies teacher to carefully and effectively blend technology, content and pedagogy so as ensure meaningful learning. This question sought to find out the Technological, Pedagogical and Content knowledge of social studies teachers that are relevant to the teaching of social studies. Data from the responses of the teachers to the questionnaire provided relevant information that indicated the content knowledge of the social studies teachers. The section of the questionnaire that focused on this question had three items. The items were generally written in positive form with the responses on a five-point Likert scale measure with Strongly Disagree (SD) taking "1", Disagree (D) takes code 2; Undecided (U) taking 3; Agree (A) takes code 4 and Strongly Agree (SA) taking code 5. The individual items relating to the research question were analysed using frequencies, percentages and means. The mean of means was used to analyse the general content knowledge of the teachers. A mean score range of between 1.0 and 1.50 is indicative of strongly disagree, 1.51 to 2.50 is indicative of disagree, 2.51 to 3.5 is indecision, 3.51 to 4.50 is agree and from 4.51 to 5.0 is indicative of strongly agree. Table 3 presents the Technological, Pedagogical and Content knowledge of the social studies teachers.

Results from Table 3, 54 students representing 73.0% of the teachers asserted that they select effective teaching approaches to guide students' thinking and learning in social studies. It recorded a mean score of 3.96 meaning the teachers select the best approaches that promote effective learning. However, a mean score of 2.96 for "I can teach lessons that appropriately combine social studies, technologies and teaching approaches" and 3.01 for "I can select technologies to use in the classroom that enhance what I teach and

what students learn” shows that teachers were undecided. A group mean of 3.31 suggests that teachers were indifferent about their TPACK competence. This study is not different from the findings of previous research that; most teachers lack confidence in technology as well as their technology skills. According to them, only 23 percent of teachers surveyed feel prepared to integrate technology into their instruction [42]. Meanwhile, teachers’ attitudes towards and expertise with technology has been identified as key factors associated with technology use in the classroom [27, 33]. Teachers need to hold a positive attitude towards technology in order to use it effectively in their teaching. Moreover, their pedagogical beliefs and existing teaching practices will shape how they incorporate technology in the classroom [34]. This suggests, teachers who remain indifferent about their competence in using technology should develop better attitude so as to effectively incorporate technology in social studies classrooms.

**Table 3.** Technological, Pedagogical and Content Knowledge of Teachers.

Statement	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	SD
I can teach lessons that appropriately combine social studies, technologies and teaching approaches	11 (14.9)	21 (28.4)	11 (14.9)	22 (29.7)	9 (12.2)	2.96	1.30
I can select effective teaching approaches to guide student thinking and learning in social studies	3 (4.1)	1 (1.4)	4 (5.4)	54 (73.0)	12 (16.2)	3.96	.80
I can select technologies to use in my classroom that enhance what I teach and what students learn	7 (9.4)	26 (35.1)	8 (10.8)	25 (33.8)	8 (10.8)	3.01	1.23

(Group Mean = 3.31; Group SD = 0.56)

### 5. Conclusions and Recommendations

The study revealed that, teachers have adequate content knowledge to teach Social Studies but there are doubts as to whether their knowledge is current. Although teachers have adequate pedagogical knowledge, they are not sure of the misconceptions of the students about Social Studies. The study also concluded that, teachers were not confident about their technological, pedagogical and content knowledge in Social Studies. This resulted in their negative attitude towards the integration of technology in classroom activities.

It is recommended that, the Ghana Education Service should organize In-Service Training and refresher courses for teachers so as to keep them current and up-to-date since teachers were not sure as to whether their content knowledge about Social Studies was current. It is further recommended that, teachers should adopt positive attitudes towards learning and using technology in their day-to-day activities. There is the need for government to make more investment in technology training and technical support by allocating funding and resource.

**Author Contributions:** Conceptualization, AB and FHA; methodology, FHA and BKO; formal analysis AB and BKO; investigation; AB, FHA, FTO, BKO, POA, and IKA; Resources, AB, FHA, FTO, BKO, POA, and IKA ; data curation AB, FHA, FTO, BKO, POA, and IKA ; writing-original draft preparation, AB, FHA BKO and FTO; writing-review and editing, AB, FHA, FTO and BKO; visualisation, AB, FHA, FTO, BKO, POA, and IKA ; supervision EAQ, LAT, BKO, JDO, KO, and FA; project administration, AB, FHA, FTO, BKO, POA, and IKA. Authors have read and agreed to the published version of the manuscript.

**Funding:** “This research received no external funding”

**Data Availability Statement:** Data is available on request from the corresponding author.

**Acknowledgments:** We acknowledge respondents for their time with us.

**Conflicts of Interest:** “The authors declare no conflict of interest.” “No funders had any role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results”.

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