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Unpacking Technological Pedagogical Content Knowledge Level of Religious and Moral Education Teachers

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Abstract
The focus of this study was to unpack' Technological Pedagogical Content Knowledge (TPACK) level of Religious and Moral Education (RME) teachers in Ghana, as well as the gender difference of teacher on their TPACK level. The researcher employed descriptive survey as the research design. Questionnaire was used as the research instrument to collect data from the teachers. The census technique was used to include all 136 RME teachers all 68 Public Junior High Schools in the KEEA Municipality for the study. The study revealed that RME teachers have high levels of TK, CK, PK but low level of TPACK. The study also unearthed that there was a statistically significant gender difference of teachers with respect to their TPACK level in that, male teachers were observed to have high TPACK level than their female counterparts. Based on the findings of the study, conclusions and recommendations are discussed in this work.
Keywords: Technological, Pedagogical, Content, Knowledge, Teachers, Gender
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1.0 Introduction

Generally, education all over the world has had binary focal objectives: to assist learners grasp the knacks of literacy and numeracy and to assist them build wholesome personality. It has been understood that to create and maintain a civil society, there must be education for character as well as for intellect. Education also help learners to acquire knowledge and skills to live a decent life in the society (Abroampa, 2007). However, these skills can only serve beneficial purposes through the process of education, provision of avenues for learners to become fully-fledged human through the exploit of their knowledge, understanding and skills to advance the cause of humanity (Lickona, 1993). According to Pelled (1996), a great and continuing purpose of education has been the development of sound moral and spiritual values in children. To fulfil this purpose, society calls upon all its social institutions to play a key role in the upbringing of young people. This is put squarely at the doorstep of the Religious and Moral Education teacher.

Expertly, teachers are persons who are trained, certified, and certificated in both theory and practice of education. They are very important in the life cycle of students through his brilliance, influence, character, self-discipline, and exemplary qualities because the teacher is saddled with responsibility of imparting positive knowledge and information to the life of students. According to Hippocrates as re-echoed by Umar et al (2004), the teacher affects eternity, he/she can never tell where his/her influence stops. Therefore, the influence of a well-trained, dedicated, qualified and approachable teacher in teaching can never be under-estimated.

According to Dunmire (2010), in the 21st century, learners are engrossed and fascinated by technological/ICT processes, applications and resources. For students to function effectively around these technological resources, teachers need to instil in students the needed competencies and skills to positively use ICT resources innovatively in addressing societal problems and aspirations. By doing so, the teacher needs to be equipped with the requisite knowledge, skills, and competencies to effectively blend technology with content and pedagogy.

For that call, Mishra, and Koehler (2006), recently introduced the union of three different types of knowledge as representative of what teachers need to know, "technological pedagogical content knowledge" as a build-up of Shulman's initial pedagogical content knowledge. It is expounded by Mishra and Koehler (2006), that quality teaching requires developing a nuanced understanding of the complex relationships between technology, content, and pedagogy, and using this understanding to develop appropriate, context-specific strategies and representations. Technological pedagogical content knowledge (TPACK) is an understanding that emerges from interactions among content, pedagogy, and technology knowledge. Therefore, the need for teachers to use technology during their instructional periods appears to be a key component in almost all perfection plans for education and educational transformation programmes (National Council for Accreditation of Teacher Education, 1997; Davis & Falba, 2002; International Society for Technology in Education, 2002; Dawson, Pringle & Adams, 2003; Thompson, Schmidt, & Davis, 2003). However, the knowledge the knowledge that is required of teachers appears to be affected by the gender of teachers.

The model of technological pedagogical content knowledge (TPACK) argues that developing good content requires a thoughtful interweaving of all three key sources of knowledge: technology, pedagogy, and content. The core of the argument is that, there is no single technological solution that applies for every teacher, every

course, or every view of teaching (Mishra and Koehler, 2006). Therefore, developing insight into the technological pedagogical content knowledge of moral educators is paramount in the quest for teachers' knowledge level in teachers' technological knowledge and implementation.

2.0 Context and Purpose of the Study

Several studies have explored the concept of Technological Pedagogical Content Knowledge (TPACK) on teachers. However, most of these studies (Zhou, Zhang and Li, 2011-China; Forsell, 2011-California; Chai, Koh and Tsai, 2011-Singapore) focused on preservice teachers to the neglect of the actual or permanent practicing teachers. In addition, most of these studies (Kihoza, Zlotnikova, Bada and Kalegele, 2016; Engida, 2014) were conducted within different subjects and socio-cultural contexts as well as levels either than Junior High School teachers in Ghana. In the Ghanaian context, the few studies (Acquah, 2017; Kwakye, 2016; Agyei and Voogt, 2012) all focused on student teachers, whilst Asare-Danso, 2017 focused on College of Education tutors.

Again, studies on TPACK of teachers with respect to their demographic backgrounds have proven to be much worth to deal more with. This is because there are contrasting results or findings and hence tend to be inconclusive on the matter. Scholars like (Lin, Tsai, Chai and Lee, 2013 in Singapore; Horzum, 2013; Alazzam, Bakar, Hamzah and Asimiran, 2012 in Malaysia), found a significant gender difference regarding the Technological Pedagogical Content Knowledge of Teachers within Europe, and Asia as well as in Africa. On the contrary, (Karakaya and Yazici 2017; Kavanoz, Yüksel and Özcan, 2015; Karaca, 2015; Jang and Tsai, 2012), also disclosed that there were no significant difference between male and females teachers with respect to their Technological Pedagogical Content Knowledge levels. Therefore, in the void of actual teachers TPACK knowledge level and how and the effects of gender difference regarding TPACK level, this study sought to fill the gaps.

3.0 Research Questions

The following Research question and hypothesis directed the study;

1. What is the level of RME teachers' Technological knowledge?
2. What is the level of RME teachers' Content knowledge?
3. What is the level of RME teachers' Pedagogical knowledge?
4. What is the level of RME teachers' Technological Pedagogical Content knowledge?

4.0 Hypothesis

H_0: There is no statistically significant difference between male and female teachers with respect to the level of their

Technological Pedagogical Content Knowledge.

H_1: There is statistically significant difference between male and female teachers with respect to their Technological

Pedagogical Content Knowledge.

5.0 Methodology

According to Amedahe and Gyimah (2016), research design can be conceived of as the sum scheme for soliciting responses to the research questions or for testing hypothesis. Design employed for the study for the study was the descriptive cross-sectional survey. This design enables the exploration of the current state of a phenomenon and its vivid description (Gall, Gall, & Borg, 2007; Leavy, 2017). Creswell (2014) opines that the cross-sectional survey allows for the collection of data on a wide range or across board at the same time within a short period of time. This design enabled the researcher to collect data from teachers in all sixty-eight junior high schools in the Komenda-Edina-Eguafo-Abirem (KEEA) to determine their technological pedagogical content knowledge level. The census method was employed to include all 136 RME teachers in all 68 Public Junior High Schools in the KEEA Municipality.

5.1 Sample

The focus of the study was to Public Junior High School Teachers teaching Religious and Moral Education in the Komenda-Edina-Eguafo-Abirem Municipality in the Central Region of Ghana. There are sixty-eight Public Junior High Schools in the Municipality. The population of the study comprised of all RME teachers in all sixty-eight Junior High School (PJHS) in the KEEA Municipality. The choosing of government assisted, or public junior high schools was considered right for the study because it is assumed generally that it is the government schoolteachers who have undergone proper or formal training in the field of teaching in their respective teaching subjects. Again, it is these teachers in the public schools that serve as part-time teachers in the private schools and some of those who are full time teachers in the private schools are mostly retired government schoolteachers (Bosu, 2010). Hence, they would be the best to respond to the items excellently. There was two RME teachers in

each of the sixty-eight schools, making 136. That was therefore used as the sample size for the study. The use of the census enabled the researcher to provide the true measure of the population as well as enabling all teachers teaching the RME subject in the Municipality to be studied (Cara, 2019).

5.2 Instrument

The instrument employed for the study was questionnaires. The questionnaire was made up of close-ended items. In all, there were 42 closed ended items which were structure into four sections; A, B, C, D and E. Section A dealt with the Gender of teachers while the other sections B, C, D, E and F covered the Technological Knowledge, Content Knowledge, Pedagogical Knowledge, Technological Pedagogical Content Knowledge, and Gender difference of teachers, respectively. The instrument was given to colleague researchers to ascertain how they meet face and content validity. A pilot test was also carried out in the 10 schools with 25 teachers in the Cape Coast Metropolis in the Central Region of Ghana. To determine the reliability, a coefficient of Cronbach's alpha of 0.80 was obtained for the instrument. According to George and Mallery (2003), a Cronbach's co-efficient alpha level of .8 is rated to be good and whilst .9 is rated as excellent. Therefore, an alpha level of .80 is can be said to be excellently reliable instrument.

5.3 Analysis

Questionnaires were analysis with Statistical Package for Social Sciences (SPSS 23.0). Descriptive statistics such as Means and Standard Deviations were used to determine the direction of the responses. Also, independent samples t-test was employed to test the significant difference between male and female teachers. Results were presented in tables.

6.0 Results and Discussion

6.1 Gender of Respondents

Table 1: Gender of Respondents

Gender	No	%
Male	62	45.6
Female	74	54.4
Total	136	100.0

Participants for the study were 136 RME teachers at the JHS level in the KEEA Municipality in the Central Region of Ghana. There were 62 (45.6%) males and 74 (54.4%) females. It can be deduced that a greater number of respondents in the study area were females. This may be attributed to the fact that most females prefer teaching reading subjects like English and RME to calculation subjects like mathematics and the sciences. This could be the leading factor for their choice of subject area regarding what they teach.

6.2 What is the Level of RME Teachers' Technological Knowledge?

This research question sought to find out the technological knowledge level of RME teachers. Teachers were asked to indicate the level of their agreement or disagreement of the items on their TK. Their responses are presented in Table 2

Table 2: Technological Knowledge (TK) Level of RME Teachers

Statement	Mean Test Value= 3.0	SD
I am capable of learning technology easily	4.88	3.42
I keep abreast with new technologies	4.68	.59
I know a lot of different technologies used in teaching RME	3.31	1.19
I know a lot of different technologies used in teaching RME	3.31	1.19
I know a lot of different technologies used in teaching RME	3.31	1.19
I have the skills I need in using technology	3.22	1.35
I can use PowerPoint or similar programmes to create a basic presentation	3.15	1.29
I can install a new programme that I would like to use in teaching RME	2.89	2.06
I have the knowledge to save an image from a website to the hard drive of my computer and or vice versa	2.80	1.39
I am vexed with the creation and editing of images and video clips using the required applications	2.70	1.02
I know how to solve my own technical problems with regards to the use of ICT	2.65	1.02
I can create electronic and website accounts	2.01	.12
Mean of means/Standard Deviation	3.23	1.35

Results from Table 2 gives much evidence to suggest that generally, most RME teachers have high level of technological knowledge since the calculated Mean of means was greater than the test value of 3.0 (MM=3.23,

SD=1.35)**.** However, dwelling on the individual items, the results give indications that there were variations in terms of magnitude in the mean scores and standard deviations. Some of these prominent reasons include the fact that RME teachers strongly agreed that they were capable of learning technology easily (M=4.88, SD=3.42). This finding is essential because technology like culture is not static but rather, it keeps on changing and so teachers should always be ready to learn the new emerging technology for the effective and dynamic teaching in the modern age. Lending this to the TPACK theory, Mishra, and Koehler (2008), argue that technological knowledge involves the knowledge that is required to operate particular technologies. They added that technological knowledge is not fixed and therefore teachers should have the ability to learn new technologies as they keep emerging and changing to effectively make use of them for teaching and learning process in this era of technological advancement. This is because as the nature of technology keeps changing with time, so shall technological knowledge change. Hence, teachers pointing out their ability to learn new technology is of much essence to the age of technology. Again, the teachers pointed out that they keep themselves abreast with new technologies (M=4.68, SD=.59). This suggests that RME teachers are very knowledgeable in terms of different types of technology.

Furthermore, the teachers pointed to the fact that they know many different technologies that they can use in teaching RME (M=3.31, SD=1.19). In other words, RME teachers demonstrated their consciousness and their efforts to familiarize themselves with technology and hence, can use it in one way or the other. Again, concerning the skills necessary for using technology, RME teachers agreed that they possess the skills they need in using technology (M=3.22, SD=1.35). The teachers further agreed that they have high knowledge about the usage of PowerPoint or similar programmes to create a basic presentation (M=3.15, SD=1.29). This revelation aligns with the point made by Zhang and Martinovic (2008) that most tertiary educational institutions are also going digital where they use the e-learning platform to make teaching and learning accessible to all learners despite the busy schedules of lecturers/tutors. They also added that such a platform is good in enhancing teachers' technological knowledge and making them appreciate the use of digital tools.

In a sharp contrast, the teachers exposed that they have low level of knowledge in creation and editing of images and video clips using the required applications (M=2.70, SD= 1.02). In the same vein, on their ability to create electronic and website account, RME teachers showed that they have low knowledge on this matter (M= 2.01, SD=.12). It can be argued to some extent that RME teachers lack adequate knowledge about the procedures to be followed in installing new computer programmes they want to use, create and edit videos as well as creating their own websites or electronic accounts. This may be because, though teachers interact with technology, their knowledge is not rooted in their deep knowledge as things they have formally learnt but through surface interaction knowledge. Lending this to the TPACK theory, Koehler, Mishra, and Yahya (2007) advanced that technological knowledge comprises knowledge of how to install and remove peripheral devices, install and remove software programmes, and create and archive documents. In the same vein, Ekrem and Recep (2014) stressed that it appears that, even though RME teachers seem plausible or attached to technology, their awareness on technology is not at the desired level of acceptance. This further gives room for the presupposition that RME teachers are, as well, going to be faced with the challenge of using more sophisticated technology resources such as video processing, web page development, creating reusable learning objects, database, multimedia, and composition, as reported in a study by Raman and Yamat (2014).

Even though respondents demonstrated a low level of knowledge on some items, the overall mean (Mean of means) and standard deviation values for the Technological Knowledge (TK) of Religious and Moral Education teachers in the Komenda-Edina-Eguafo-Abirem Municipality (MM=3.23, SD=1.35) justifies that they have high knowledge in technology.

6.3 What is the level of RME Teachers' Content Knowledge?

This research question sought to solicit for responses from teachers on the level of their knowledge of the RME subject they teach. Their responses are presented in Table 3.

Table 3: Content Knowledge (CK) Level of RME Teachers

Statement	Mean	SD
	Test Value= 3.0	
I understand RME concepts, models, ideas, and structural construction well enough to be able to teach effectively	5.25	4.31
My educational background has thoroughly prepared me to teach RME effectively	5.19	4.32
The RME subject is used to build tolerance, respect, understanding and cordial relationship among pupils to become acceptable members of society	4.85	.46
I possess knowledge in topics on all moral issues in the JHS RME syllabus	4.85	.46
I possess high knowledge of all Christian Religion topics in JHS RME syllabus	4.85	.41
I update my knowledge of RME by keeping abreast with developments in RME	4.85	.38
I have high knowledge of all Islamic Religion topics in JHS RME syllabus	4.83	.43
I effectively make use of concepts and relate them to the needs and realities of the society	4.83	.38
I have knowledge in topics on social issues in the JHS RME syllabus	4.83	.38
I possess adequate knowledge in all African Traditional Religion topics in the JHS RME syllabus	4.81	.40
Mean of Means/Average Standard Deviation	4.91	1.19

It can clearly be observed from the table that generally, RME teachers have high content knowledge level. All the teachers indicated that they possess a high level of knowledge with respect to the understanding of RME concepts, models, ideas, and structural construction well enough to be able to teach effectively (M=5.25, SD=4.31). Relating this to the TPACK construct, Koehler, and Mishra (2009, p. 63), stipulated that teachers' content knowledge means the teachers' knowledge of the subject matter which made up the curriculum and this would include "knowledge of concepts, theories, ideas, organizational framework, knowledge of evidence and proof, as well as established practices and approaches towards developing such knowledge". It was also discovered from the responses that RME teachers strongly agreed that their educational background has thoroughly prepared them to teach RME effectively (M=5.19, SD=4.32). Again, RME teachers pointed out that the RME subject is used to build tolerance, respect, understanding and cordial relationships among pupils to become acceptable members of society (M=4.85, SD=.46). Paying attention to the results, it can be argued emphatically that RME teachers have a mastery of content. In view of this, National Research Council (2000) and Pundt and Duit (1994) cautioned that the cost of not having a comprehensive base of content knowledge can be quite prohibitive; students can receive incorrect information and easily develop misconceptions about the content area.

Following their responses on the possession of knowledge in topics on all moral issues in the JHS RME syllabus, teachers strongly agreed that they possess high knowledge (M=4.85, SD=.46). They further indicated that they possess high knowledge in all Christian Religion topics in the JHS syllabus (M=4.85, SD=.41), they possess high knowledge in all Islamic Religion topics in the JHS syllabus (M=4.83, SD=.43), as well as possessing high knowledge in all African Traditional Religion topics in the JHS syllabus (M=4.81, SD=.39). These findings resonate with the study of Dinama (2013) which revealed that Religious and Moral Education teachers are knowledgeable in the content they need to possess in teaching a multi-faith Religious Education curriculum. Dinama further posit that mastery of the content knowledge is vital since it enables the teacher to confidently and satisfactorily deliver the various concepts as well as plan, implement and assess its delivery to students. This knowledge is of critical importance especially for Religious and Moral Education teachers since they cover a curriculum that consists of different religions and are expected to master it perfectly to impart some information on religions to learners in an effective and efficient manner (Ibid, 2013).

Moreover, it can be realized from the responses on table 8 that RME teachers pointed to the fact that they are highly knowledgeable in topics on social issues in the JHS syllabus (M=4.83, SD=.38). They further revealed that they update their knowledge by keeping abreast with developments in Religious and Moral Education curriculum ((M=4.85, SD=.38) as well as making effective use of concepts and relate them to the needs and realities of the society (M=4.83, SD=.38). According to Clark (2016), Content knowledge (CK) is teachers' knowledge about the subject matter to be learnt or taught and the content to be covered at school as the syllabus specifies. As Shulman (1986) noted, this knowledge would include knowledge of concepts where Taba (1962) states that "concepts are complex systems of highly obstruct experiences in a variety of context" (p. 128). The teachers' high knowledge of the RME subject could be attributed to the fact that they are not novice teacher and that they have taught the subject for quite long.

6.4 What is the Pedagogical Knowledge Level of RME Teachers?

This research question aimed at knowing teachers' responses on the level of their pedagogical knowledge. Their responses are presented in Table 5

Table 4: Pedagogical Knowledge (PK) Level of RME Teachers

Statement	Mean	SD
	Test Value= 3.0	
I am acquainted with common student understanding and misunderstanding	5.18	4.32
I have adequate understanding of lesson plan preparation (Vertical and Horizontal)	5.04	4.34
I have the knowledge in the organization and maintenance of discipline in classroom	4.77	.42
I organize my teaching based upon pupil's prior knowledge of topics or concepts	4.76	.48
I have knowledge of the Profile Dimension	4.74	.50
I possess the knowledge of the School Base Assessment (SBA) practices	4.74	.49
I know how to assist students to construct knowledge and acquire skills in different ways	4.63	.63
I employ an extensive variety of teaching approaches in a classroom setting (collaborative learning, direct instruction, inquiry learning, problem/ project-based learning etc.)	4.60	.55
I make use of Role Play or Dramatization in teaching RME	4.54	.74
I make use of question-and-Answer method in teaching RME	4.47	.89
I use discussion method in teaching	4.15	1.20
Mean of Means/Average Standard Deviation	4.69	1.32

Table four obviously gives that indication that RME teachers possess high level of pedagogical knowledge, since the overall mean of means and standard deviation (Mm= 4.69, SD=1.32) is higher than the test value. It can be realised from the table that majority of RME teachers indicated that they are highly knowledgeable concerning the common student understanding and misunderstanding (M=5.18, SD=4.32). In addition, the RME teachers indicated that they have adequate understanding of lesson plan preparation (M=5.04, SD=4.34). Again, RME teachers showed that they possess high knowledge in organising and maintenance of discipline in the classroom (M=4.77 SD=.42). Judging from the results, it can be stated that RME teachers possess adequate knowledge of learning theories and how they apply it in the classroom situation. Juxtaposing with the TPACK theory, it is affirmed that pedagogical knowledge is generic in the sense that it cuts across content areas to include knowledge of learning theories and how they apply to the classroom (Koehler & Mishra, 2008). Teachers immeasurable knowledge of the pedagogy may be probably be because they have taught for long and therefore their teaching methods, techniques and personal skills have advanced their knowledge level of pedagogy. Again, it could also be attributed to the fact that the effective and rigorous nature of their teacher education programme adequately prepared them for the teaching profession and hence their high response to the questions could not be underrated.

6.5 What is the level of RME teachers' Technological Pedagogical Content Knowledge?

This purpose of this research question was to find the teachers' ability to combine technology, content, and pedagogy. Their responses are presented in Table 6.

Table 5: Technological Pedagogical Content Knowledge (TPACK) Level of RME teachers

Statement	Mean	SD
	Test Value= 3.0	
I can search and use online materials that effectively demonstrate a specific principle in my subject area	3.30	.76
I can use technology to facilitate scientific inquiry in the classroom	2.38	.60
I am able capable to use technology to make efficient illustrations of content that departs from textbook methods	2.36	.66
I can choose technologies to be used in my classroom to aid smooth and effective teaching and learning process	2.35	.69
I can teach lessons that suitably fuse my content, technologies, and teaching techniques	2.29	.66
I able to construct activities to assist learners to form different demonstrations of the content using appropriate technologies (e.g., Webspiration, Mindmaps, and Wikis)	2.24	.50
I can design inquiry activities to guide students to make sense of the content knowledge with appropriate technologies (e.g., simulations, web-based materials)	2.23	.49
I can make comprehensive discussion on topics in my subject area and facilitate students' online collaboration with appropriate tools. (e.g., Google Sites, Discussion Forums)	2.20	.48
I can use technology in student assessment to modify instruction	2.18	.45
I can use technology to predict students' skill/understanding of a particular topic.	2.05	.33
I can create self-directed learning activities of the content knowledge with appropriate technologies (e.g., Blogs, Web quests).	2.04	.30
Mean of means/Standard Deviation	2.21	.49

The results from Table 5 present considerable verification to extrapolate that generally, most RME teachers have low level of Pedagogical Content Knowledge (TPACK), since the calculated Mean of means was lesser

than the test value of 3.0, (MM=2.21, SD=.49). However. Despite the lower level of the teachers' knowledge, their knowledge level varied among the various items tested. Among them was the fact that teachers indicated they have high level of knowledge on their ability to search and use online materials that effectively demonstrate a specific principle in my subject area (M= 3.30, SD=.76). Juxtaposing with the technological knowledge of teachers, it is no surprising that teachers indicated that they could search for information they need to use online. Most teachers in Ghana are familiar with the usage of mobile and android smartphones, which in effect are the avenues with which they use to get the stuffs they need. They use them to search for meaning of words, definitions of terms and explanations to key concepts to boost their teaching in the classrooms. Hence, the response of teachers on this item is not surprising.

In contrast to the above-mentioned item, teachers demonstrated a low level on the rest of all other items, such as the knowledge in their ability to use technology to facilitate scientific inquiry in the classroom (M=2.38, SD=.60). Again, teachers pointed out that they possess low level of knowledge on the capability to use technology to make efficient illustrations of content that departs from textbook methods (M=2.36, SD=.66). In like manner, teachers showed that they lack high level of knowledge on the selection of technology to be used in their classroom to aid smooth and effective teaching and learning process. (M= 2.29, SD.66). The basis of the TPACK framework is the complex relationship that exists among technology, content, and pedagogy. As Koehler & Mishra (2006), it is required of teachers to understand this complex relationship. The issue here is that, teaching with technology, especially advanced ones will be difficult to achieve in the KEEA Municipality since teachers lack knowledge in this area. Teachers' lack of knowledge of adequate knowledge here could result from several factors. Such factors like inadequate training or formal knowledge acquisition of in technological application in teaching and learning. Though computing is taught in Ghanaian schools, courses on the educational institutions to train teachers on the use of technology in teaching is lacking. Therefore, teachers are only used to standardized technologies like the white board and marker, pens, erasers, etc. while the use of projectors and other technologies that are essential for teaching are lacking. It could also be that, teachers.

6.6 Hypothesis

H_0: There is no statistically significant difference between male and females teachers with respect to their Technological Pedagogical Content Knowledge (TPACK) level.

H_1: There is a statistically significant difference between male and females' teachers with respect to their Technological Pedagogical Content Knowledge (TPACK) level.

The essence of this hypothesis was to know whether a difference exists between male and female teachers regarding their TPACK knowledge. In order to identify the differences in gender with respect to their TPACK level of RME teachers, the obtained data were analysed using independent sample t-test. The independent variable was gender of Religious and Moral Education teachers and the dependent variable was Technological Pedagogical Content Knowledge (TPACK) preparedness.

Table 6: T-Test Results on Difference between Male and Female Teachers with Respect to the Level of their Technological Pedagogical Content Knowledge (TPACK)

Gender	Mean	SD	*T*	df	*P*
Male	3.74	0.781	-3.228	685	0.001
Female	3.51	1.123	-3.196		

Results from Table 6 indicated that there was a statistically significant difference between male and female teachers regarding their Technological Pedagogical Content Knowledge (TPACK) level. This is evident as (M= 3.74, SD = 0.781) was found for male teachers while female teachers had (M = 3.51, SD = 1.123); t (685) = 3.196, $p < 0.05$, (p=0.001). This implies that male teachers have higher technological pedagogical content knowledge than their female counterparts do. Therefore, the researcher rejects the null hypothesis. This could probably be because the male teachers explore more with technological; using technological tools and applications to do things and as well engaging in lots of technological gadgets than their female counterparts. In that case, it would be no surprising that the knowledge level of male teachers regarding their TPACK will be higher than their female counterparts. This resonates with that of Karaca (2015) whose study found out that there was a significant difference in the scores for males (M=125.4, SD=17.4) and females (M=132.5, SD=15.1); t (140) =2.63, p = 0.01 which suggest that gender influences RME teachers' Technological Pedagogical Content Knowledge.

7.0 Conclusion and Recommendations

Despite the fact that RME teachers were found to be highly knowledgeable in technology especially on their ability of learning new technologies easily, keeping abreast with new technologies, knowing technologies that can be used in teaching and their knowledge on the usage of PowerPoints to create a basic presentations as solicited from their responses; They were found to lack high knowledge in installing new programmes that they would like to use in teaching, saving, creating and editing of images and video clips creating and editing

websites. This finding draw attention to the two-sidedness of teachers' technological knowledge. The first being that though teachers know but may not be able to practice in that they might have been finger pointed knowledge but not actually a practicable knowledge. Again, it can also imply that though teachers really know it but lack of provision of such technologically enabled environments and equipment prevents their practice. Also, teachers' inability to create, editing videos and others can hinder their practice in teaching of the RME subject because, for the lesson in RME to be, real and practical teachers require to create video scenarios and practical lessons for the students to watch. This therefore will require extra help. It can only be assumed that teachers will be able to use technology in their teaching endeavours. The Ministry of Education through the Ghana Education should therefore take it as a matter of urgency to organize training programmes to teachers on the use of common technologies, applications, and tools that will help teachers to get a grip of the needed materials surfing the internet.

It was not surprising to have known the extent to which teachers had advanced their content knowledge as they pointed out that they understand RME concepts, models idea and structural construction well enough to be able to teach, possessing of knowledge in all moral and social issues in RME, knowing all Christian, Islamic and African Traditional religions topics in the JHS RME syllabus in Ghana. This was because their educational backgrounds have prepared them well enough to be able to handle their subjects. It can also be argued from the angle that teachers' enormous knowledge could be due to the years of their teaching experiences. It is undeniable fact that the years of teaching experience affects teacher knowledge and skills, in that the more you teach, the more you understand what you teach. It can therefore be said that teachers' knowledge of the RME subject could be the result of the above-mentioned factors. The Ministry of Education through the Ghana Education Service should organize regular in-service training for the RME teachers to enhance the knowledge of their subject. Also, teacher-training institutions should revamp their Curriculum to ensure that the quality of the standards will not fall out

In like manner, the level of RME teachers' Pedagogical knowledge was also found to be high in that, teachers indicated that they are familiar with common students understanding, had adequate knowledge of lesion plan, organizing of teaching based on pupils' prior knowledge. Regarding assessment teachers showcase high knowledge of the School Based Assessment as well as employing an extensive variety of teaching approaches like role play/dramatization discussion and Question and Answer methods in their teaching. Here it can be realised that teachers had full grips of what pedagogical knowledge entails. Teachers' knowledge could be due to factors such as their years of teaching experience that had made them advanced in their methods and skills in teaching. Also, it could be attributed to the quality of training they acquired during their schooling or teacher training education. The quality of training they got could be a much bearing on their on the quality of their knowledge. In that manner, teacher-training institutions should harness the quality of their training given their students. The Ghana Education Service should make regular in-service training an essential tool in maintaining and improving teachers' pedagogical knowledge for effective classroom learning activities.

Despite the fact that teachers indicated a high level of Technological, Pedagogical and Content knowledge, they could not suitably fuse content, technology and teaching techniques. They fingered out that they could not use technology to make efficient illustrations of content that departs from textbook methods, incapable of using technology to facilitate scientific inquiry in classroom, unable to create self-directed learning activities of the content knowledge with appropriate technologies, as well as weak ability to even use technology in assessment to modify instruction. This outcome could probably emanate from the fact that RME teachers have not receive any formal training on how they can blend advanced technology with their content and pedagogy. In that case, using technology in teaching will become a serious problem the teachers. The emphasis here is advanced technology because in the TPACK theory where, books, pends white board and marker are placed under standard technology are not norms or traditional forms of teaching and learning strategies that are already used in Ghana and therefore, there would not be much of a need to emphasize. In this case, effective teaching and learning in the 21st century Ghanaian classroom really suffers. This raises a serious call to the Ministry of Education through the Ghana Education Service and National Council for Curriculum and Assessment (NCCA) to make technology part of the teacher education programmes studied in Ghanaian schools. In this I it is well anticipated that course that are included will be geared towards the training of teachers on how they can teach or blend technology, content and pedagogy for effective teaching in modern Ghana. The Ghana Education Service should also provide schools with technological resources as well as providing intensive training given to teachers on the use of familiar advanced technological gadgets like smartphone and how they can operate them to get information for themselves as use them appropriately.

Knowing that TPACK knowledge is affected by gender of the RME teachers as inferred from the variables tested; males teachers had high level of TPACK than their female teachers, it is come to bear on the Ghana Education Service to draw the interest of female teachers on advanced technology to by providing incentives and scholarships for female teachers to help them to be equip and fast learn the needed skills that are needed for teaching in the 21st century classroom.

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