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Integrating Technology into Teaching of Religious and Moral Education in Colleges of Education

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Abstract:
This study sets out to investigate the integration of technology by RME tutors in the Colleges of Education in the Volta and Eastern Regions of Ghana. The research design employed for the study was a descriptive survey. Twenty-four (24) RME tutors were involved in the study. The census method was used to involve all the 24 RME tutors in the Colleges of Education in the two regions for the study. Two instruments; questionnaires, and observation checklist were used to collect the data. Statistical Product and Service Solution (SPSS version 16.0) was used to process the data. Descriptive statistics such as percentages, means, and standard deviations were used to analyse and discuss the data. The study revealed that RME tutors' use of technology in the classroom is influenced by external factors such as technology availability, accessibility, technical support, administrative support, and adequate time to learn how to integrate a particular technology into lessons. However, RME tutors do not frequently use audio aids and audio-visual aids in their lessons. It is recommended that the principals of the colleges should make effort to eliminate the factors (such as unavailability of technology, inaccessibility of technology, lack of technical support, administrative support, and inadequate time to learn how to use a particular technology in teaching) that contribute to technology disuse in the colleges of education. Again, the principals of the Colleges of Education in collaboration with the Institute of Education of the University of Cape Coast should plan professional development programmes that will help tutors to integrate emerging technologies into their lessons.

Keywords: *Integration, technology, religious and moral education, teaching*

1. Introduction

For any developing country to make any significant progress in its socio-economic development efforts, substantial resources will need to be directed at improving educational delivery (Government of Ghana, 2004). The key role that Information and Communication Technology (ICT) can play in widening access to education to a wider section of the population, and literacy education for facilitating educational delivery and training at all levels has been recognized (Government of Ghana, 2003). With recent development and advances, technology in education has virtually become a source of concern for educators, teachers, and learners. Technology is being successfully utilized in resolving many of mankind's problems, and as a result, its success is generalized to the teaching-learning situation (Veer, 2006). Generally, it seems that educational systems around the world are now under increasing pressure to use emerging technologies to teach learners the knowledge and skills they need in the twenty-first century, for it is often said that education must keep up with the times.

The rate at which technology is growing is unparalleled. This exponential growth of technology has indeed changed the world, and its impact on every aspect of society is impossible to measure. Spellings (2006) spoke of the unprecedented pace of technological innovation and global competition taking place currently. Spellings (2006) concluded that all Americans must be technically adept and numerically literate regardless of their chosen occupation so that they can make informed decisions and enjoy advancement in their careers. With the emerging technologies, the teaching profession is evolving from an emphasis on teacher-centred or lecture-based instruction to student-centred instruction whereby interactive learning environments are created. A report by UNESCO (2001) supporting this assertion, envisages the transformation of the teaching-learning process and the way teachers and learners gain access to knowledge and information.

Governments and school administrators see the possibility of improving education by letting students learn at their own pace, teaching new skills needed in the modern world, and capturing the engagement and attention of students, something which has become increasingly difficult (Richtel, 2011). It is relevant to state that refusing to integrate technology into teaching and learning is tantamount to educating people who do not have the technological skills to compete and succeed in higher education or in the job market, both nationally and globally. Public and political support for technology use has generated billions of dollars toward increasing its availability to universities and corporate organisations (Minor, Losike-Sedimo, Reglin& Royster, 2013). The US Government, for example, has created a public-

private organisation called "Digital Promise" (Duncan & Hastings, 2011) while the European Commission has made funding for technology in the classroom part of their digital agenda (Kroes, 2011).

The Philippine Government initiated that by the end of 2009, there would be a: 1) provision of appropriate educational technologies to all public high schools; 2) provision of a computer laboratory with basic multimedia equipment to 75% of public high schools; 3) provision of electronic library systems to all public science-oriented high schools; 4) training of 75% of public secondary school teachers in basic computing and internet skills as well as in Computer-Aided Instruction (CAI); 5) integration of ICT in all learning areas, when appropriate; and 6) private sector support (Balmeoet al., 2014).

At the dawn of independence in 1957, Ghana nursed the dream of rapid social and economic development using knowledge and tools derived from Science and Technology. Ghana was the first country in sub-Saharan Africa to launch a cellular mobile network in 1992 (GhanaWeb, 2015). It was also one of the first countries in Africa to be connected to the internet and to introduce Asymmetric Digital Subscriber Line (ADSL) broadband services. In spite of the post-independence push to create the current science and technology capacity, there has been no remarkable progress in ensuring that Science, Technology, and Innovation drive socio-economic activities (Ministry of Environment, Science and Technology, 2009). A major cause was the absence of a definitive and prescriptive National Science and Technology policy document which defined the vision, goals, objectives and priorities for investment in Science, Technology and Innovation (Ministry of Environment, Science and Technology, 2009). This led to the introduction of the National Science and Technology policy in 2002. However, the policy was not implemented.

Advances in science and technology with wide applications, such as innovations in ICT and Internet applications as well as emerging trends in Biotechnology and nanotechnology made it imperative for Ghana to review her science and technology policy in 2009. It can therefore be said that technology is given much attention in Ghana due to the realization worldwide that technologies are able to bring about desired changes only when they are fully integrated into local systems and practices.

According to Groff and Mouza (2008), legislative factors, that is, factors attributed to policy have a greater influence on technology integration in the classroom. As a nation, Ghana has its own policy regarding information technology adoption and use in schools. Efforts to introduce ICT in schools derive from the national ICT for Accelerated Development (ICT4AD) Policy of 2003 and the ICT in Education policy of 2008. The Government of Ghana has placed a strong emphasis on the role of ICT in contributing to the country's economy. The country's medium-term development plan captured in the Ghana Poverty Reduction Strategy Paper (GPRS I & II) and the Education Strategic Plan 2003-2015 all suggest the use of ICT as a means of reaching out to the poor in Ghana (Government of Ghana, 2004).

In 2004, the Ghanaian Parliament passed into law Ghana's ICT for Accelerated Development (ICT4AD) Policy, which is currently at various stages of implementation. This policy represents the vision of Ghana in the information age and addresses 14 priority focus areas including accelerating human resource development and promoting ICT in education. One of the specific objectives of the policy is to facilitate the deployment, utilizationand development of ICT within the educational system to improve educational access and delivery to support teaching and learning from the primary level upwards.

As part of Government of Ghana's plan to build a nation with high sense of technology through science and technology and innovation, the Ministry of Environment, Science and Technology with the support and collaboration of Ministry of Education, the Ministry of Communication and the GETFund, has been distributing free laptops to students, teachers, and schools since March, 2011. The idea behind this was to encourage the integration of technology into teaching and learning at the various level of education.

In the words of Kochhar (2009), "Technology has been successfully introduced in the field of education to make education more productive and more individual; to give instruction a more scientific base; and to make instruction more powerful, learning more immediate, and access to education more equal" (p. 7). Kochhar (2009) added that educational technology has made tremendous progress in the last decade and is continually making great strides in the developing countries of the world. Donahoo and Whitney (2006) are of the opinion that schools cannot hope to improve either the academic achievement of their students or the overall value of their programs without sufficiently integrating technology.

It is relevant to state that technology in itself cannot change education. It could cause a change when integrated into the curriculum (Muir–Herzig, 2004). It is also worth noting that technology itself does not support learning. It can play out its full potential only when it is well integrated into learning environment (Otto & Albion, 2004; Voogt&Knezek, 2008). The integration of appropriate technology into the teaching and learning of RME, like any other subject, has the potential to improve teaching and learning efficiency. Understanding the design, relevance and application of educational technology is fundamental to promote student's interest and motivate them to take more responsibility for their own learning.

1.1. Statement of the Problem

The important role that technology plays in education has put pressure on educators to reform schools. Over the past decade, educational stakeholders including administrators, parents, and even politicians have pushed toward the use and integration of educational technology in the classroom (Minor et al., 2013). Governments and non-governmental organisations are therefore spending a huge amount of money on technology integration in the educational sector. For instance, Brant (2010) posits that spending for technology in 2009 across all levels of education in the US was over 63 billion dollars.

In Ghana, the previous government distributed free laptops to students, teachers, and schools between March, 2011 and December, 2016 under its Better Ghana ICT Project. Some schools also benefited from the few projectors which were distributed. Whether they are adequate or not, technologies such as computers, projectors, internet, and digital cameras are available in the Ghanaian classrooms (Suallah, 2013; Acquah-Dugan, 2015). This notwithstanding, RME teachers do not make use of instructional technologies/resources (Owusu, 2015).

Again, several studies (e.g. Yidana, 2007; Sarfo & Ansong-Gyimah, 2011; Agyei, 2012; Agyei & Voogt, 2012; Owusu-Ansah, 2013; Amidu, 2013; Suallah, 2013; Acquah-Dugan, 2015; Owusu, 2015) on technology integration have been conducted in the Ghanaian classrooms. Even though studies (e.g. Amidu, 2013; Suallah, 2013) on technology integration have been conducted in the colleges of education, it appears, however, that studies have not been conducted on technology integration in Religious and Moral Education (RME) at the colleges of education in Ghana, hence this study.

1.2. Purpose of the Study

The thrust of this descriptive study was to investigate technology integration by RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana. The specific objectives of the study were to:

- Identify the technologies which RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana often integrate into the teaching and learning of RME.
- Describe the external factors that influence RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana to integrate technology into the teaching and learning of RME.

1.3. Research Questions

The following questions were formulated to guide the study:

- What technologies do RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana often integrate into RME lessons?
- What external factors influence RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana to integrate technology into RME lessons?

2. Literature Review

2.1. Theoretical Framework

The theoretical framework of the study is derived from Constructivism because the study fits into this psychological school of thought. Constructivist learning is associated with Jean Piaget (1955), Jerome Bruner (1961), and Lev Vygotsky (1978). Constructivism stresses on what goes on in the mind of the learner during the learning process. The constructivist revolution has brought new conceptions of learning and teaching (Marshall, 1996; Philips, 1998; Steffe& Gale, 1995) and has become the overriding view of how students learn (Mayer, 2004). The constructivists believe that learning takes place with the help of the mind. They believe that learners are not a passive recipient of information; they are active agents that construct their own knowledge in their mind. Resnick (1989) argued that "Learning occurs not by recording information but by interpreting it" (p. 2). Learners are therefore seen as sense-makers. In other words, the knowledge-acquisition metaphor had to be replaced by the knowledge-construction metaphor (Mayer, 2004). According to Piaget (1955), the construction of knowledge is done through three processes, namely: assimilation, accommodation, and equilibrium. Assimilation and accommodation are two sides of adaptation.

The constructivists believe that learning is a social activity and that the environment that people learn has a great influence on their learning. It is relevant to state that as learners interact with teachers, instructional resources/technologies, and their fellow learners, learning takes place. Vygotsky (1978) referred to the difference between what the child can learn on his own and what the child can learn through the help of others as the "zone of proximal development". According to him, what children can do on their own in the learning process is their level of actual ability, and what children can do with the help of others in the learning process is their level of potential ability.

Constructivism, according to Phillips (1998), takes many forms. However, the underlying premise is that learning is an active process in which learners are active sense makers who seek to build coherent and organised knowledge (Mayer, 2004). It, therefore, follows that learners must be active during learning. The implication is that active teaching methods such as group discussions, hands-on activities, and interactive games should be employed during the teaching-learning process. It is believed that learning, which occurs in the context of problem-solving, is more likely to be retained and applied than inert knowledge acquired through more traditional teaching methods. Constructivist Gooden (1996) perceives technology as a toolbox filled with skills for better learning by creating new materials, not a tool for performing a particular task. McClintock (1992) opines that in a constructivist-learning environment, technology plays an acknowledged and purposeful role in the day-to-day activities, but does not become the object of instruction. When used in a constructivist manner, students utilize technologies to (a) manipulate data, (b) explore relationships, (c) intentionally and actively process information, (d) construct personal and socially shared meaning, and (e) reflect on the learning process (Jonassen, Peck & Wilson, 1999). Constructivist-learning environments are likely to encourage learners to actively process and organise information by making the internal cognitive connection.

2.2. Empirical Review

Teachers are seen as the most important ingredients for success when using and integrating technology (Mandellet al., 2002). Teachers are said to be central to the creation of a technology-integrated environment that is

learner-centred and motivating (Beckett et al., 2003). If teachers fail to integrate technology into teaching and learning activities, learners' exposure to technology will remain limited and inequitable. It, therefore, becomes imperative for teachers to use technology frequently in the classroom. Technology integration research has identified several critical variables thought to be important in regard to achieving effective technology integration, such as teacher characteristics, access to technology, support, and so on (Inan & Lowther, 2010). It is argued that if teachers are provided with technologies such as laptops, LCD/DLP projectors, and software, both teachers and learners would be motivated in the teaching and learning process (Abdullah, Abidin, Luan, Majid, & Atan, 2006). The empirical evidence suggests that availability of technology, access to technology, technical support, administrative support, peer support, and community support have direct or indirect effect on technology integration in the classroom (Hadley & Sheingold, 1993; Gulbahar, 2008; Alharbi, 2013).

Balmeoet al. (2014) carried out a study which had a focal point engaged in the integration of technologies in the educational environments where students with special learning needs are housed.Fifty-threee (53) teachers employed in the special education schools in Baguio City were selected for the study. The questionnaire was employed as the main data collection instrument for the study. The study results showed that in the special education schools in Baguio City, there is the integration of technology, but not to an extensive level. The study revealed that technologies such as a whiteboard, computer, dictionary, clock and laptop are frequently used in the classroom for effective teaching-learning process. These technologies are frequently used because they are readily available. Balmeo et al. (2014) stated, "Whiteboard resulted in being one of the most available technologies in teaching students with special need in the SPED schools in Baguio City. It is approximately used three times a week for classroom interaction." (p. 13). Whiteboard is commonly used by teachers and students for writing and for projecting pictures, videos, and texts.Nikian, Nor, and Aziz (2013) also researched into Malaysian teachers' perception of applying technology in the classroom. This qualitative study involved seven teachers who teach English Language in Malaysia. The study employed interview as an instrument for data collection. The findings indicated that all respondents use computers and the Internet regularly.

According Brun and Hinostroza (2014), teachers use technologies in teaching quite frequently, and to some extent, teachers also teach their students how to use technologies. They reported:

> Regarding the frequency of ICT use in teaching and learning activities, results show that 76% and 74% of teachers used projection systems and computers, respectively, in half or more of their lessons, whereas most of the remaining hardware resources show percentages below 10%. It's noteworthy that while 44% of teachers reported the use of digital learning resources in half or more of their lessons, only 13% or less reported the same frequency regarding multimedia or educational software (p. 229).

The remaining hardware resources which showed percentage below 10% were audio equipment, interactive whiteboards, digital cameras, mobile devices, and videoconferencing systems. One might be tempted to argue that the low percentage of teachers using some specific technologies is as a result of their lower availability. However, findings of the same study indicated that those technologies were available. Whether or not this reflects the situation in Ghana is established in the current study. Unlike the above studies, this study collected data from students and also made use of observation checklist to cross-validate the responses provided by the tutors.

With regards to external factors that influence the use of technology in the classroom, empirical data puts forward that availability of technology, access to technology, technical support, administrative support, peer support, and community support have direct or indirect effect on technology integration in the classroom (Gulbahar, 2008; Mereku, Yidana, Hlordzi, Tete-Mensah, & Williams, 2009; Alharbi, 2013; Mai & Hong, 2014). Mereku, Yidana, Hlordzi, Tete-Mensah, and Williams (2009) conducted a study on Ghana's Report on ICT. Five institutions, representing the nation's pre-tertiary and tertiary educational institutions, were purposively selected for the study. The study employed both quantitative and qualitative methods to collect data. Thus, structured questionnaire and interview guide were used to collect data from students, educators, and school administrators. The findings indicated that availability of ICT syllabuses/manual, ICT teachers who are willing to provide educators and learners with training and availability of computers and computer laboratories that can be accessed periodically are some of the factors that encourage the usage of ICT in tertiary institutions.

Inan and Lowther (2010) conducted a study with the aim to examining the direct and indirect effects of teachers' individual characteristics and perceptions of environmental factors that influence their technology integration in the classroom. They developed a research-based path model to explain causal relationships between these factors which were tested based on data gathered from 1,382 Tennessee public school teachers. The results indicated that computer availability, directly and indirectly, increases teacher technology use. Again, it was found that technology integration is influenced by support from peers, administration, and the community. Thus, teachers who get technical assistance, encouragement or approval from colleagues, heads of departments, principals et cetera are likely to integrate technology into their teaching. More often than not, teachers need assistance while integrating technology. This is particularly so when installing and using software or handling technical issues (Sandholtz& Reilly, 2004). Consequently, Sandholtz and Reilly (2004) emphasize the importance of the availability of technical support in the school setting. Sandholtz and Reilly (2004) indicated that when technical support is available to handle hardware and software troubleshooting, teachers are able to use technology more quickly and are more productive in their classrooms.

Similarly, Alharbi (2013) investigated the attitudes of teachers towards using technology where Saudi Arabia's educational technology integration was compared to that of the United States. The study employed interview as the main instrument for data collection. Ten (10) participants (5 from Saudi Arabia and 5 from the United States of America) were interviewed. One of the research questions sought to find the factors that influence teachers' use in the classroom. The

study revealed that unavailability of technologies was one of the reasons why teachers in Saudi Arabia were not integrating technology into their lessons. Alharbi (2013) wrote, "For example, Internet connections are not available to teachers in Saudi Arabia in the schools even though these teachers desire to have it." (p. 57). Another factor that was found to influence teacher technology integration was support from administration. The findings indicated that whereas teachers in Saudi Arabia were struggling to get support from their schools, the majority of teachers in the United States feel very positive about the support they receive from their institutions.

Mai and Hong (2014) conducted a study recently in Mekong Delta, Vietnam on factors affecting secondary school English teachers' adoption of technologies in Southwest Vietnam. The study sought rich descriptions of the current environment of technology integration and teaching practices accompanying it in English Language Teaching at the secondary level. A qualitative research design was used. The main data collection methods were an open-ended questionnaire and semi-structured interviews in English. Different sources of information and various types of data collection methods were used to minimize the biases that might occur in qualitative research. Fifty (50) English teachers from secondary schools in Can Tho and Dong Thap took part in the study. The open-ended questionnaire was adapted from a number of previous studies in the related area of ICT in teaching. The findings of this study indicated that external factors have a significant impact on teachers' uptake and integration of ICT in their classrooms. The first influential factor was ICT availability and accessibility. This was followed by technical support. The teachers in these provinces' technology use were also influenced by their colleagues' activities. Thus, they integrate technology into their lessons if they get support or motivation from their peers. The teachers indicated that they expect more encouragement from their colleagues in their uptake of ICT.

With the exception of Merekuet al., (2009)'s study, all the above studies were conducted outside Ghana. Merekuet al., (2009)'s study involved both pre-tertiary and tertiary institutions. Besides, the study was not geared towards a particular discipline. Accordingly, the current study focused on Colleges of Education in Ghana. Specifically, it looked at the external factors that influence RME tutors in the Colleges of Education to integrate technology into their lessons.

3. Methods

3.1. Research Design

The researchers employed descriptive survey for the study. Data were collected from both RME tutors and students. RME tutors and students were given questionnaires to complete. The study also made use of observation checklist. Each tutor who was involved in the study was observed two times during teaching-learning process on different occasions. Thus, data were collected at a point in time. Taking into consideration the objectives of the study and the research questions, the descriptive research design was found to be appropriate for the study. Descriptive studies, according to Rao (2006), accurately portray the characteristics of a particular situation or groups or individuals. According to Fink (2001), the design also enables the researcher to describe, observe and document aspects of a situation as it naturally occurs rather than explaining it. It enables the researcher to produce a good amount of responses from a wide range of people.

This design has its own weaknesses. Fraenkel and Wallen (2000) point out that a problem common in a particular human environment may not be exactly the same in another environment and hence the generalization of this study may not be valid in the different human environment. Again, getting a significant number of questionnaires completed and returned so that meaningful analysis could be made is one difficulty with the use of the descriptive survey design. Notwithstanding these weaknesses, the design was chosen because its advantages outweigh the weaknesses.

3.2. Population

The population of the study was 24 RME tutors and 314 second year students offering RME as an elective subject in the Colleges of Education in the Volta and Eastern Regions of Ghana in the 2015/2016 academic year. The first-year students were exempted because they read RME as a general course for only one semester that is the first semester. The third-year students were also exempted because they were out of campus for off-campus teaching practice. The researchers intended to cross-check students' responses with the responses provided by the tutors.

There were seven (7) Colleges of Education in the Volta Region of Ghana as of the time of the study. These were: Evangelical Presbyterian College of Education, St. Francis College of Education,St. Teresa's College of Education,Jasikan College of Education, Peki College of Education, Akatsi College of Education, and Dambai College of Education. There were six (6) Colleges of Education in the Eastern Region of Ghana as of the time of the study. These were Abetifi College of Education, Presbyterian College of Education, S. D. A. College of Education, Presbyterian Women's College of Education, Mount Mary College of Education, and Kibi College of Education. In all, the study covered 13 Colleges of Education. As of the time of the study, there were 24 RME tutors in all the 13 Colleges of Education selected for the study. There were twenty (20) male RME tutors and four (4) female RME tutors. There were 314 second year students offering RME as an elective subject in the colleges selected for the study. So, in all, the population was 338.

3.3. Sample and Sampling Procedures

Due to the small number of RME tutors, the study employed census method to involve all the 24 RME tutors in the study. This made it possible to collect data from and about each of the tutors in the population. One advantage of the census method is that there is no need to worry about sampling error (Ogah, 2013).

Purposive sample technique was used to select second-year students who were reading RME as an elective subject. The second-year students were selected on the basis that they have been taught by the RME tutors for three semesters so they would be in the right position to give concrete information about the RME tutors with regards to the tutors' use of technology in RME lessons. The third-year students could have been selected but they were out of campus for off-campus teaching practice. Upon realizing that the second-year students were few, the researchers decided to involve all of them in the study. In all, 338 respondents (24 tutors and 314 students) were selected for the study.

3.4. Data Collection Instruments

The research instruments which were used for data collection were questionnaires supplemented by observation checklist. The questionnaires were used to elicit information from both RME tutors and students. Thus, two sets of questionnaires (one for tutors and another one for students) were developed for the study. The questionnaire for students and the observation checklist were developed to collect data in order to cross-validate the responses given by the tutors. The questionnaires were used due to the reason that it has a high response rate. Again, it helps to retrieve information easier and quicker rather than to interview every respondent, especially when they are many. Its limitations may be perceived in the areas of the fact that respondents may not give appropriate answers to the items since the method usually involves the use of structured items.

The self-administered questionnaire for the RME tutors had three (3) sections. Section A dealt with demographic data of RME tutors. This section had both open and closed-ended questions. There were seven (7) items under this section. Section B sought information on how often RME tutors integrate technologies into their lessons. Respondents were made to indicate how often they use the stated technologies. The section had ten (10) items. Section C sought information about the external factors that influence RME tutors to integrate technology into their lessons. Section C had seven (7) items.

The questionnaire for students had two (2) sections. Section A concentrated on demographic data of the students. The section was made up of both open and close-ended questions. There were six (6) items under Section A. Section B focused on how often RME tutors use technologies in RME lessons. Students were therefore asked to indicate how often their tutors use the stated technologies in lessons. There were ten (10) items under Section B.

All the items, except those under Section A on both tutor and student questionnaires, were designed on a five-point Likert-type scale. In section B of the tutors' questionnaire, respondents were asked to rate on a five-point scale ranging from 1 (*never*) to 5 (*very often*). In Section C, respondents were made to rate on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). In section B of the student questionnaire, respondents were asked to rate on a five-point scale ranging from 1 (*never*) to 5 (*very often*). The observation checklist which was developed for the study had eleven (10) items. It mainly sought to gather information on whether or not RME tutors integrate technologies into their lessons. The observerrated on a two-point scale, 1 (*yes*) and 2 (*no*).

3.5. Validity and Reliability of Instrument

In order to determine the content validity of the instruments, the questionnaires, and the observation checklist were presented to two professors, Professor Seth Asare-Danso (University of Cape Coast) and Professor Theophilus A. Ossei-Anto (Kwame Nkrumah University of Science and Technology) who are experts to ascertain their validity. The suggestions, as given by the professors were used to effect the necessary changes to improve upon the validity of the instruments. Thereafter, a pilot test of the instruments was conducted whereby the questionnaires and the observation checklist were administered in three Colleges of Education in the Central Region of Ghana, namely Komenda College of Education, Our Lady of Apostle (OLA) College of Education and Fosu College of Education. These Colleges of Education were chosen for the pilot test because of proximity and some identifiable characteristics of interest and similarities. Apart from using the same curriculum (in terms of content and pedagogy) as used by the population chosen for the study, students from Komenda College of Education, Our Lady of Apostle (OLA) College of Education, and Fosu College of Education write the same examination with the students from the Colleges of Education selected for the study This examination is conducted by the University of Cape Coast. Besides, distribution of facilities to the Colleges of Education in these Central, Eastern and Volta regions by the government is done evenly. The teachers from these colleges also had similar characteristics in terms of qualifications. Seven (7) RME tutors and 86 students were involved in the pilot test.

The data gathered from the pilot test were analysed and the Cronbach's alpha was established for the items that fall under the five research questions. On the tutors' questionnaire,Cronbach's alpha of 0.73 and 0. 81 were obtained for the items under Sections B and C respectively.On the students' questionnaire,Cronbach's alpha of 0.95 was obtained for the items under Sections B.Cronbach's alpha for the observation checklist was 0.71. The pilot test helped to establish the reliability of the instruments and gave the researchers an idea of the expected responses. According to Fraenkel and Wallen (2000), thealpha coefficient of 0.7 or higher is reliable.

3.6. Data Collection Procedures

A discussion was held with the RME tutors and students to agree on a convenient time to administer the instruments. Data collection took place between 30thMay, 2016 and 11thJuly, 2016. All data were collected by the researchers. On the first day of data collection, the observation was made after which the questionnaires were given to both the tutors and the students. This happened in the colleges where there were second-year students who were offering RME as an electivesubject. Each of the nine tutors who were teaching the second year RME students at the time of data collection were observed twice. The questionnaires were retrieved on the second meeting. In colleges where there were

no second-year students offering RME as elective, the researchers gave the questionnaires to the RME tutors to complete them after which they were collected the following week.

The attitude of some respondents (both tutors and students) was bothersome to the researchers. Some of the students did not answer the questionnaire. Others demanded financial benefits before they responded to the questionnaire. Some of the tutors felt that the researchers were assessing them, with regards to technology integration. Consequently, some of them did not want to allow the researchers to do the second observation. Some of the tutors felt the researchers would waste their time and were therefore reluctant. However, these problems were overcome with the help of the college principals.

3.7. Data Processing and Analysis

The data which were collected from the tutors and students through the questionnaire and the one collected through observation were edited and coded. The researchers checked for the inaccuracy of the questionnaires after they had been retrieved in order to find out whether all the items had been responded to. This helped the researchers to discard those which were not fully completed. Afterward, the Statistical Package for Service Solutions (SPSS) version 16.0 was used to process the data. Descriptive statistics was employed in the analysis of the data since the design for the study was descriptive. The biographic data of both students and tutors' questionnaires were analysed using frequencies and percentages. The research questions were analysed and discussed using mean and standard deviation.

4. Results and Discussion

This chapter is divided into two. The first section deals with the analysis of biographic data of respondents. This includes items like gender, age, and years of experience in teaching RME. Data on the biography of respondent were analysed through the computation of frequencies and percentages. The second section deals with the discussion of the results. Data gathered for the purpose of addressing the research questions were analysed through computation of means of means distribution and standard deviation.

4.1. Presentation of Demographic Results

This section describes the demography of respondents. Data were gathered from both tutors and students. The return rate for the tutors' questionnaire was 100%. Data was collected from all the 24 RME Tutors. Out of the 314 student questionnaires administered, 218 were retrieved. Thus, the return rate for the students' questionnaire was 69.4%. On the part of the tutors, issues such as respondents' gender, age, and years of experience in teaching RME among others were captured. On the part of the students, data were collected on their gender, age, how long they have been using technology in their learning, the kind of technologies they use in their learning, and whether or not they are receiving training on preparation, selection, and utilization of technology. Table 1 presents the demographic data of tutors.

Variable	Subscale	N	%
Gender	Male	20	83.3
	Female	4	16.7
Age (in years)	31-40	3	12.5
	41-50	18	75.0
	Above 50	3	12.5
Teaching experience (in years)	Less than 1	1	4.2
	1-5	4	16.7
	6-10	9	37.5
	11-15	6	25.0
	Above 15	4	16.7
Use of technology in teaching (in years)	Less than 1	2	8.3
	1-5	11	45.8
	More than 5	10	41.7
	Never	1	4.2
Training in preparing, selecting and utilizing technology during professional training	Yes	20	83.3
	No	4	16.7
Training on technology in current institution	Yes	16	66.7
	No	8	33.3

Table 1: Demographic Data of Tutors
Source: Field Data, 2016

As reported in Table 1, 20 (83.3%) of the RME tutors who were involved in the study were males whilst 4 (16.7%) were females. This indicates that the majority of the RME tutors in the study were males emphasizing the male dominating nature of tutors with regard to the teaching of the subject.

Regarding the age distribution of the RME tutors, the results from Table 1 shows that 3 (12.5%) of the tutors in the study were aged between 31 and 40 years, 18 (75.0%) were aged between 41 and 50 years, and 3 (12.5%) were above 50 years. This shows that the majority of the tutors were between 31 and 50 years. This will be of benefit to the Colleges of

Education if management is able to provide the necessary technologies and develop training programmes that will endow this age group with the requisite skills and knowledge needed to integrate technology into teaching.

With respect to how long RME tutors have been teaching the subject, 1 (4.2%) has taught for less than 1 year, 4 (16.7%) have taught for between 1 and 5 years, 9 (37.5%) have taught for between 6 and 10 years, 6 (25.0%) have taught for between 11 and 15 years, and 4 (16.7%) have taught for over 15 years. This shows that a significant majority of the tutors have handled the subject for quite a long time and therefore have enough experiences.

Concerning how long RME tutors have been using technology in their teaching, the results from Table 1 show that 2 (8.3%) have been using technology in teaching for less than 1 year, 11 (45.8%) have been using technology in teaching for between 1 and 5 years, 10 (41.7%) have been using technology in teaching for over 5 years, whilst 1 (4.2%) has never used technology in teaching. This indicates that a greater number of tutors have been using technology in teaching for some time so they have some level of experience in integrating technology into their lessons.

It is also clear from Table 1 that an overwhelming majority 20 (83.3%) of tutors, indicated that they received training in the preparation, selection and utilization of technology during their professional training whilst 4 (16.7%) indicated that they did not receive training. The results from Table 1 also show that 16 (66.7%) of the tutors received some form of education and training on technology in the institutions they are working with but 8 (33.3%) of the tutors did not receive any form of education and training in the institutions in which they are teaching. Thus, a significant majority of the tutors have the requisite skills to integrate technology into their lessons. This, however, does not mean that tutors do not need training regarding the preparation, selection, and utilization of technology any longer. New technologies are coming so tutors need to abreast themselves so that they can keep with the time. Besides, whether tutors integrate technology into their lessons or not is also established in the study.

Table 2 shows the demographic data of students. The data was analysed with the use of frequencies and percentages.

Variable	Subscale	N	%
Gender	Male	116	53.5
	Female	101	46.5
Age (in years)	16-20	11	5.1
	21-25	188	86.6
	26-30	18	8.3
Use of technology in learning (in years)	Less than 1	67	30.9
	1-5	57	26.3
	More than 5	31	14.3
	Never	62	28.6
Technologies used in learning	Flip charts	8	3.7
	Television	3	1.4
	Radio	4	1.8
	Digital camera	1	0.5
	Digital video recorder	1	0.5
	Computer (desktop/laptop)	61	28.1
	Internet	69	31.8
	None	70	32.3
Receiving training in preparing, selecting and utilizing technology as part of professional training	Yes	155	71.4
	No	62	28.6

Table 2: Demographic Data of Students
Source: Field Data, 2016

As indicated in Table 2, 116(53.5%) of the students who took part in the study were males, whereas 101 (46.5 %) were females. This is an indication that the majority of students in the study were males which emphasised the male dominating nature of students regarding the study of the subject. It appears that more males are into RME than females. It was, therefore, not surprising that the majority 20 (83.3%) of the RME tutors in the Colleges of Education in the Volta and Eastern Regions were males.

Concerning the age distribution of the students, the results from Table 2 indicate that 11 (5.1%) of the students involved in the study were aged between 16 and 20 years, 188 (86.6%) were aged between 21 and 25 years, and 18 (8.3%) were between the ages of 26 and 30 years. This shows that the majority of the students were between 21 and 30 years.

It is evident from Table 2 that 62 (28.6%) students have not been using technology in their learning. Sixty-seven (67) of the respondents, which represents30.9%, affirmed that they have been using technology in their learning in less

than a year. Fifty-seven (57) of the respondents, representing 26.3%, pointed out that they have been using technology in their personal studies between 1 to 5 years. Thirty-one (31), representing 14.3% said they had been using technology in their lessons for more than 5 years. It can be said that the majority 155 (71.4%) of the students use technology in their personal studies. It can be deduced from this that students are already engaging expansively with technology. Learners would, therefore, be glad and motivated if technology is integrated into teaching.

It is observed from Table 2 that 8 (3.7 %) of the students indicated that they use flip charts in their learning. Three (3) of the respondents, which represent 1.4% also affirmed that they use television in their personal studies whilst 1 (0.5%) of the respondents indicated he/she uses a digital camera in learning. Whereas 4 (1.8%) of the respondents reported that they use theradioin their personal studies, 1 (0.5%) affirmed he/she uses digital video recorder in his/her learning. It is evident from Table 2 that the technologies which are mostly used by learners are computer and the Internet. Again, 61 (28.1%) and 69 (31.8%) of the learners indicated that they use acomputer and the Internet respectively. It is possible that learners are using these two technologies because they are available and accessible. It can also be that learners find these two technologies helpful. For instance, they can save their important files on the computer and use the Internet to access information via the World Wide Web.

One hundred and fifty-five (71.4%) of the learners affirmed that they were receiving training on the preparation, selection, and utilization of technology as part of their professional training. It can be that the management of the Colleges of Education are aware of the benefits that instructional technology can offer to both tutors and learners, and thus, they are compelled to train the would-be-teachers to integrate technologies into their lessons. Meanwhile, 62 (28.6%) of the respondents were of the view that they were not receiving training on the preparation, selection, and utilization of technology as part of their professional training. Perhaps, these students are not aware of the training they are receiving on technology. It can also be that students are generally receiving training on technology in a different subject but not in RME. However, the conclusion remains that the majority of the respondents affirmed that they are receiving training on preparation, selection, and utilization of technology as part of their professional training.

4.2. Presentation of Main Results

This section presents the results of data collected to answer the five research questions formulated to guide the study. It comprised data from the questionnaires (from both tutors and students) and observation checklist.

- Research Question 1: What technologies do RME tutors in the Colleges of Education in the Eastern and Volta Regions of Ghana often integrate into RME lessons?

The purpose of research question 1 was to find out the frequency of use of technology by RME tutors during teaching-learning process. The statistical tools used for the data analysis were means and standard deviations. The responses provided by the RME tutors are shown in Table 3.

Technology	Mean	SD
Flip charts	2.29	0.81
Marker board	4.63	0.49
RME textbook	4.50	0.51
Radio	2.20	0.98
Digital camera	1.67	0.87
Digital video recorder	1.83	0.92
Television	2.13	0.95
Internet	2.88	1.08
LCD/DLP projector	2.00	0.98
Computer (desktop/laptop)	3.08	1.21

Table 3: Technologies often Used by RME Tutors
Source: Field Data, 2016
Scale: 1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Often, 5 = Very Often

RME tutors (M = 2.29; SD = 0.81) indicated that they rarely used flip charts in their teaching work. The use of flip charts in lesson presentation could help tutors to entwine their words and images into a unified message, making their presentation interesting. Effective use of flipcharts in lessons has the potential to help learners focus and remember the core points in the lesson presentation, thereby enhancing students' understanding of the topic being taught. It follows that both tutors and learners would not enjoy these advantages since the tutors seldom use flip charts. Perhaps, tutors failed to use flip charts in their lessons because they felt the lessons, they presented did not require the use of flip charts.

It is also clear from Table 3 that RME tutors (M =2.13; SD =0.95) used television on the odd occasion in their lessons. The use of television in lessons can help learners to easily retain information. Perhaps tutors did not use it because they believed that the use of television in teaching might consume their time. Concerning the use of radio in teaching, a mean of 2.20 and a Standard Deviation of 0.98 was achieved. This is an indication that the RME tutors (M = 2.20; SD = 0.98) hardly used the radio in their teaching activities. It is possible that these technologies were not available or tutors did not have access to them, for tutors had already asserted that their use of technology in teaching is influenced by the availability of technology (M = 4.17; SD 0.82) and access to technology (M = 4.13; SD = 0.74).

The use of digital camera and digital video recorder recorded the low means, 1.67 and 1.83 respectively. Standard deviations of 0.87 and 0.92 were obtained for digital camera and digital video recorder respectively. This is an indication

that RME tutors hardly used digital camera and digital video recorder in their teaching work. It was revealed from Table 3 that the majority (M = 4.50; SD = 0.5I) used RME textbook in their lessons very often. It is also evident from Table 3that RME tutors (M = 4.63; SD = 0.49) used marker board very often. It was observed that there were marker boards in all the classrooms in the colleges which were involved in the study. Apart from writing on maker boards, tutors also use marker board for projecting pictures, videos, and texts through the use of the LCD/DLP projector. It is plausible that tutors used marker boards and RME textbooks frequently because they were the most available and accessible technologies in the Colleges of Education. This conclusion is drawn based on the reason that tutors asserted that their use of technology in teaching is influenced by the availability of technology (M = 4.17; SD 0.82) and access to technology (M = 4.13; SD = 0.74).

From Table 3, RME tutors were of the view that they sometimes used a computer in their teaching activities (M = 3.08). Tutors can use computers to prepare their lessons. They can also keep files or materials on the computer and use them during lesson presentation. It is relevant to note, however, that a high standard deviation (1.21) was recorded which indicates that respondents' level of congruence was very low. In most cases, computers are used together with projectors for PowerPoint presentation. This might make one think that RME tutors would sometimes use LCD/DLP projectors since they sometimes use computers in their teaching activities. Tutors (M = 2.00; SD = 0.98) pointed out that they seldom used an LCD/DLP projector in their lesson presentations. It could be that this technology was either not available or it was not accessible in the Colleges of Education. Another possible reason for the tutors' failure to use LCD/DLP projectors might be lack of technical support because tutors (M = 4. 17; SD = 0.64) had already indicated that their use of technology is influenced by the training they received on the technology

Finally, RME tutors (M = 2.88) indicated that they sometimes used the Internet in their teaching activities. The Internet has become one of the most important teaching and learning resources to both teachers and students in our time. Tutors can have access to much useful information via the Internet. One might be compelled to believe that teachers would take advantage and make use of the Internet often but this is not the case with RME tutors. The reasons as to why tutors did not use the Internet often were not established in this study. It could be that tutors do not have access to the Internet in the Colleges of Education. It can be seen, however, that respondents were heterogeneous in their responses (SD = 1.08). It is possible that some tutors used the Internet very often while others did not use it at all.

- Research Question 2: What external factors influence RME tutors at the Colleges of Education in the Eastern and Volta Regions of Ghana to integrate technology into RME lessons?

Research Question 2 sought to identify the justification for tutors' use of instructional technology during teaching-learning process. Data was analysed with the use of means and standard deviations. The responses elicited from the RME tutors are presented in Table 4.

Factors	Mean	SD
My use of technology in teaching is influenced by availability of technology in the college	4.17	0.82
My use of technology in teaching is influenced by access to technology	4.13	0.74
My use of technology in teaching is influenced by technical support I receive on technology	4.17	0.64
My use of technology in teaching is influenced by the support I get from administration	3.67	0.96
My use of technology in teaching is influenced by the time I get to learn how to integrate it into my lessons	3.92	0.83
My use of technology in teaching is influenced by the support I get from my colleagues	3.13	1.15
My use of technology in teaching is influenced by the support I get from the community in which the college is situated	2.50	1.22
Mean of Means/ASD	3.67	0.91

Table 4: External Factors Which Influence RME Tutors to Integrate Technology into RME Lessons
Source: Field Data, 2016
Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

From Table 5, respondents agreed that their use of technology in teaching is influenced by the availability of technology in the college (M = 4.17; SD = 0.82). This implies that RME tutors are likely to integrate technology into their lessons if those technologies are readily available. It is one thing for a technology to be available, and another thing to have access to such a technology. It is therefore not surprising that RME tutors were of the view that they used technologies in RME lessons when such technologies were accessible (M = 4.13; SD = 0.74).

From Table 4, RME tutors in the Colleges of Education affirmed that their use of technology in teaching is influenced by the technical training they receive on technology (M = 4.17; SD = 0.64). Some technologies are easy to operate. Others, however, are quite difficult to use. Hence, tutors would need a specialist to help train them on how to operate such technologies. If technicians are available in the institutions, they could help tutors if the tutors encounter any technical problem as they integrate technology into their lessons. Without the technical know-how, tutors might see the use of technology worthless regardless of its availability and accessibility. Consequently, RME tutors were of the view that they would integrate technology into their lessons if they get support from administration (M = 3.67; SD =0.96). More often than not, tutors believe that it is the responsibility of the college administration to make instructional technologies

available and accessible in the institutions. It is also expected that the college administration would provide the technical support for effective integration to take place. Thus, if the technological needs of tutors are provided, they are likely to integrate technology into their lessons.

Again, RME tutors indicated that their use of technology in teaching is influenced by the time they get to learn how to use that technology in their lessons (M = 3.9; SD = 0.83). Teachers cannot just select any technology and bring it to the classroom. They need ample time to learn it, test it before they can integrate it into their lessons. It appears that tutors do not have enough time for the subject itself, let alone to select appropriate technologies and test them before they use the technologies in the classroom.

Surprisingly, tutors were not certain as to whether their use of technology would be influenced by the support they get from their colleagues (M = 3.13). Meanwhile, tutors indicated that they would integrate technology if they get technical support (M = 3.67). Perhaps they did not believe that some of their colleagues can give the technical support they might need. It could also be that tutors know the technical-know-how of their colleagues and realise they are the same. However, respondents' level of congruence in their responses was very low (SD = 1.15)

Again, the RME tutors were not certain as to whether their use of technology in teaching is influenced by the support they get from the community in which the college is situated (M = 2.50). It could be that tutors have not received any support from the community. Tutors also affirmed that their use of technology in the classroom is influenced by technical support (M = 4.17; SD = 0.64). It, therefore, follows that if the community makes technology available and accessible, and the necessary technical support is provided tutors are likely to integrate them into teaching and learning. It can be seen that respondents were heterogeneous in their responses (SD = 1.22). It might be possible that whereas some believe that the support they get from the community can influence them to integrate technology into their lessons, others have their reservations. Suffice it to say, RME tutors in the Colleges of Education have affirmed that their use of technology in teaching is influenced by a number of factors. It was found from the current study that availability of technology, accessibility of technology, technical support, support from administration, and time move tutors to use technology in the classroom.

4.3. Analysis of Data Gathered from Students

As a backup data to research question one, second-year students who were offering RME as an elective subject were asked to indicate how often their tutors use technology in their lessons. This was done to help check whether the data gathered from the tutors were truly reflecting the situation on the ground in relation to tutors' use of technology in teaching. The responses as given by the students are presented in Table 5.

Technology	Mean	SD
Flip charts	1.65	0.97
Marker board/chalkboard	4.96	0.19
RME textbook	4.76	0.43
Radio	1.43	0.97
Digital camera	1.32	0.79
Digital video recorder	1.29	0.69
Television	1.45	0.97
Internet	2.50	1.39
LCD/DLP projector	1.81	1.27
Computer(desktop/laptop)	2.38	1.44

Table 5: Students' Responses on Technologies Often Used by RME Tutors
Source: Field Data, 2016
Scale: 1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Often, 5 = Very Often

The results, as shown in Table 5, show that students' opinions about their tutors' use of technology in teaching reflected the responses of their tutors regarding the use of flip charts, LCD/DLP projector, and the Internet. Students (M = 1.65; SD = 0.97) affirmed that their tutors almost never used flip charts in their teaching. Students (M = 1.81) also indicated that their tutors seldom used an LCD/DLP projector. However, the responses of students on tutors' use of LCD/DLP projector were polarized (SD = 1.27). Regarding tutors' use of the Internet, students' (M = 2.50) responses were in agreement with the tutors' (M = 2.88). Students opined that their tutors sometimes used the Internet in their teaching. However, just as the responses of the RME tutors were polarized (SD = 1.08), students' responses were polarized too (1.39). It could be that whereas some students saw their tutors use the Internet often in teaching, others have never seen their tutors use the Internet in their teaching. It can be concluded that some tutors used the Internet in their teaching activities occasionally.

Students (M = 4.96; SD = 0.19) strongly affirmed that their tutors made use of marker board during teaching and learning process. Students (M = 4.7; SD = 0.43) moreover indicated that their tutors used RME textbook very often in their lessons. This is in agreement with the responses given by tutors. It was found from the tutors' point of view that marker board and RME textbook were the most frequently used technologies. Students (M = 2.38) also affirmed that their tutors rarely used a computer in their lessons. Notwithstanding this affirmation, it is worth noting that respondents' level of congruence in their responses was very low (SD = 1.44).

However, students (M = 1.45; SD = 0.97) established that their tutors never used television in their lessons. Concerning RME tutors' use of radio in lessons, students (M = 1.43; SD = 0.97) affirmed that the tutors never used that technology. Furthermore, students (M = 1.32; SD = 0.79) were of the view that their tutors never used digital camera. Again, the majority (M = 1.29; SD = 0.69) indicated that RME tutors in the Colleges of Education never used digital video recorder. It could be seen that students' responses were not in total disagreement with the responses of tutors. From Table 3 RME tutors indicated that they rarely used these four technologies.

On the same topic, the researchers observed nine RME tutors who were tutoring during the time of the data collection on two different occasions. The data was analysed with the use of frequencies and percentages. The results from the observation are summarised in Table 6 below.

Statement	Subscale	N	%
Tutor uses flip chart	Yes	0	0.0
	No	18	100.0
Tutor uses marker board	Yes	18	100.0
	No	0	0.0
Tutor uses RME textbook	Yes	15	83.3
	No	3	16.7
Tutor uses digital camera	Yes	0	0.0
	No	18	100.0
Tutor uses video recorder	Yes	0	0.0
	No	18	100.0
Tutor uses television	Yes	0	0.0
	No	18	100.0
Tutor uses Internet	Yes	4	22.2
	No	14	77.8
Tutor uses radio	Yes	0	0.0
	No	18	100.0
Tutor uses LCD/DLP projector	Yes	0	0.0
	No	18	100.0
Tutor uses computer	Yes	2	11.1
	No	16	88.9

Table 6: Results from Observation
Source: Field Data, 2016

Out of the 18 observations made, none of the nine tutors made use of flip chart, television, digital camera, digital video recorder, and LCD/DLP projector. Even though in one of the colleges one could find a television in most of the classrooms, none was put on during the period of data collection. However, 4 (22%) observations were made about tutors using the internet. This was probably due to the reason that tutors needed information on a new topic, "Dimensional Approach to Religious and Moral Education", which was then introduced into the syllabus. Two of the tutors used their laptops which were connected to a modem to access the Internet. In the other two observations, the tutors used their mobile phones to access the Internet. The only instructional technologies which were found to be used often per the observation were marker board 18 (100.0%) and RME textbook 15 (83.3%). It could, therefore, be concluded that RME tutors in the Colleges of Education integrate visual aids (marker board and RME textbook) to the neglect of visual and audio-visual aids.

5. Discussion and Conclusions

5.1. Discussion

College tutors' use of technology in teaching and learning activities serves a lot of purposes. It is not only the tutors who benefit from using technology in their lessons; students benefit greatly. Apart from helping to achieve the immediate purpose, which is the success of teaching and learning in the classroom, college tutors' use of technology in the classroom serves as an example for the would-be-teachers. Modelling is an important subject matter in Religious and Moral Education. The student teachers who will in no time be in the classroom as professional teachers are likely to teach the way they were taught. Thus, as role models, RME tutors in the Colleges of Education cannot afford but to integrate technology into their lessons for their own benefit and for the benefit of the students. It is against this backdrop that the Research Question 1 sought to find the tools RME tutors integrate into their lessons. This study found that technologies such as marker board, RME textbook, computer, and the Internet were used in the Colleges of Education. This findings support the study of Balmeo et al. (2014) which found out that there was the integration of technology in special education schools in Baguio City.

Balmeo et al. (2014) found that technologies such as computer, whiteboard, and laptop were frequently used. In this study, however, the technologies found to be often used in the Colleges of Education were marker board and RME textbook. Other technologies such as computer and the Internet were occasionally used. It was revealed that RME tutors used computers occasionally in their lessons. This contradicts the studies of Nikian, et al. (2013), and Brun and Hinostroza (2014), which also found that computers were regularly used in the classrooms. The current study also contradicts the findings of Nikian, et al. (2013) and Ismail et al., (2010) which revealed that teachers often integrated the Internet into their teaching.

Previous studies (Nikianet al., 2013; Brun&Hinostroza, 2014) have found that LCD/DLP projector was often used in the classrooms. Surprisingly, the current study found that RME tutors in the Colleges of Education in the Volta and Eastern Regions of Ghana did not use LCD/DLP projectors in their teaching activities. Thus, it contradicts the above studies. Moreover, the current study has revealed that RME tutors rarely integrated technologies such as flip charts, television, digital camera, and a digital video recorder into their lessons. This confirms Brun and Hinostroza (2014), who found out that audio equipment, digital cameras, and videoconferencing systems were not frequently used in the classroom.

The findings of Research Question 1 have indicated that the only technologies which were being integrated into RME lessons frequently in the Colleges of Education were marker board and RME textbook. Other technologies such as computers and the Internet were also used in the Colleges of Education but they were used occasionally. Tutors can use technology to develop critical thinking in learners and help learners increase their confidence level by exposing them to a variety of technologies which will be of benefit to them. Tutors can even use technology to enhance their subject knowledge. RME tutors can access information from areas such as RMEonline, TeachRME, and BBC religion. During the data collection period, it was observed that most RME lessons were tutor centred. Learners sat down quietly and listened to the tutor. This does not make learners active.

Tutors' failure to integrate technology into RME lessons could be attributed to a number of reasons. Even though tutors affirmed that their use of technology was influenced by factors such as availability of technology, access to technology, technical support, administrative support among others, it cannot be concluded that these were the reasons why they were not integrating technology into their lessons. Hence, a critical investigation needs to be conducted to find why RME tutors do not use technology in RME lessons frequently.

For effective technology integration to be achieved in schools, certain factors need to be put in place. The current study has found that a number of factors influence tutors to integrate technology into their lessons. The study revealed that tutors were likely to use technology in their lessons if such technologies were readily available and tutors had access to them. Again, it was found that other factors such as technical training on how to use a particular technology, administrative support, and enough time to learn how to integrate such technology into RME lessons influence Tutors use of technology in their teaching. The findings confirm several studies (Gulbahar, 2008; Mereku, Yidana, Hlordzi, Tete-Mensah, & Williams, 2009; Inan & Lowther 2010; Alharbi, 2013; Mai & Hong, 2014) which found out that availability of technology, accessibility of technology, technical support, administrative support, and time has direct or indirect effects on technology integration in the classroom. It therefore implies that if these factors are not addressed, tutors, especially those who are not willing to integrate technology into RME lessons, might justify their technology non-usage to such factors.

It was however discovered from the study that RME tutors were not certain as to whether support from peers and community had effects on their use of technology in the classroom. The findings contradict the studies of Inan and Lowther (2010) and Mai and Hong (2014) who found out that support from peers and support from the community were contributing factors to technology integration in the classroom. Perhaps, RME tutors believed that since they received training on the selection, preparation, and utilization of technology, they did not need to rely solely on the community and their peers for support before they integrate technology into their lessons.

5.2. Conclusions

Based on the findings of the study the following conclusions could be made:

RME tutors did not make effective use of technology in the classroom. It can be said that RME tutors used marker board and RME textbooks during lesson presentations. However, tutors made a limited use of computers and the Internet to the neglect of other technologies such as LCD/DLP projectors, flipcharts, digital video recorders, digital cameras, radios, and televisions. Thus, RME tutors used visual aids (especially marker board and RME textbook) to the neglect of audio aids and audio-visual aids. Furthermore, it was found that apart from the use of marker boards and RME textbooks, RME tutors did not make frequent use of any other technology to teach RME. This is quite worrisome because these tutors are training young adults to teach in the basic schools. It is plausible these student-teachers would not integrate technology into their lessons. They are likely to teach the way they were taught, that is, teaching in abstract.

Again, external factors such as availability of technology, accessibility of technology, technical support, support from administration, and time to learn how to use a particular technology instigate tutors to integrate technology into the teaching and learning of RME. Thus, effective technology integration is likely to occur in any institution where these necessities are fully provided. Tutors, especially those who do not want to integrate technology into their lessons, could attribute their technology disuse to lack of the aforementioned factors.

5.3. Recommendations

In light of the findings and conclusions outlined, the following recommendations are made:

- The Ministry of Education, the Institute of Education of the University of Cape Coast, and the principals of the colleges should make effort to eliminate the factors (such as unavailability of technology, inaccessibility of technology, lack of technical support, administrative support, and enough time to learn how to use a particular technology in teaching) that contribute to technology disuse in the colleges of education.
- The principals of the colleges of education in collaboration with the Institute of Education of the University of Cape Coast should plan professional development programmes that will help tutors to integrate emerging technologies into their lessons
- Technologies have repercussions for conventional teaching and learning. The key to fundamental, wide-ranging educational reforms is designing and implementing successful technology-enabled teacher education programme. Thus, student-teachers must be exposed to emerging technologies that facilitate teaching and learning. It, therefore, follows that College of Education tutors themselves must abreast themselves with emerging technologies that enhance teaching and learning. They must incorporate it into their teaching activities and encourage student-teachers to integrate them into their activities as well.

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