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Tailoring History to Technology: The History Teacher's Perspective.

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Abstract

This study examined History teachers' perspectives on how History can be tailored to technology to make the subject more interesting. The study specifically sought to find out teachers' perception of the use of technology, the extent of teachers' use of technology in teaching, and challenges teachers face in using technology to teach History. The descriptive survey research design was used in this study. In all, 6 History teachers from three schools formed the sample size for the study. The instrument used to collect data was the interview guide. The main findings were that teachers have positive perceptions about the use of technology in teaching History but did not use technology frequently for instructional purposes. The study also revealed that teachers face the challenge of unavailability of technology resources, lack of enough time, and lack of motivation, in their attempt to use technology in class. It recommended that seminars should be organized for teachers for them to be exposed to the types of technologies and how to use them. Again, Ministry of Education should make technology resources available in schools, and also teachers should innovative and creative by using a variety of technologies in their lessons.

Keywords: History, technology, teaching.

1. Introduction

The changing trend of the world has made technology a basic component of every human organisation. Technological advancement over the years has led to significant and ubiquitous changes in human affairs - changes that hitherto were impossible or at least minimal. The agricultural sector, the health sector, the manufacturing sector, security agencies, and many others have all witnessed progress precipitated by technology. Notwithstanding, progress in application of technology in the field of education has been slow (Afari-Kumah & Tanye, 2009). Vrasidas & McIsaac (2001) indicate that in rich industrialized nations like the United States, technology is abundant in schools and classrooms, but the situation regarding technology in schools is not the same in smaller countries. In Ghana for instance, the technology situation in the second cycle institutions is alarming as the basic and essential technology devices are mostly unavailable or insufficient. A close look at the Senior High School (SHS) level shows that most teachers, for various reasons, do not engage in technology-infused instruction. However, the numerous subjects taught in our schools demand the incorporation of technology. History, one of the elective Art subjects in the school curriculum by its nature requires that its teachers become innovative in how they handle it. Field (2003) admits that History, like every national curriculum subject, has clear requirements to use technology but it seems that History teachers feel a burden to make use of Information and Communications Technology (ICT). This implies that for a long time History teachers have resorted to the old and dogmatic ways of teaching the subject without new technological innovations. As such more students are losing interest in the subject, and gradually, History is losing its place in the Ghanaian educational system.

1.1 Research questions

The following questions guided the study:

1. What perceptions do SHS History teachers have about the use of technology in the teaching of History?
2. To what extent do SHS History teachers use technology in teaching History?
3. What challenges do SHS History teachers face in using technology to teach History?

2. Review of literature

This section takes a perusal of the available relevant theoretical and empirical literature. This is to enable the researchers situate the findings in their appropriate context and relate them to earlier findings.

2.1 Perception

Perception is defined by Schunk (2000) as the attachment of personal meanings to internal and environmental inputs received through the senses and neural impulses. Kalanda (2005) views perception as a method or way of thinking that filters any input based on one's beliefs. He adds that in the process of filtering, different people will have different reactions to an object regardless of whether or not they are from the same environment. To Arterberry (2008), "perception is the use of the senses to acquire information or knowledge about the external world" (p. 1). These definitions point to the fact that perception concerns the nature and manner of interpretation people give to their feelings and experiences with the environment. There are different modes through which perceptions develop. Pickens (2005) identified four stages of perceptual development: stimulation, registration, organisation and interpretation. According to him, an individual accepts stimuli from the senses of sight, touch, smell, taste and hearing and registers them. The stimuli which are selected and registered are in turn organised based on prior experiences, beliefs, opinions or ideas and then interpreted or analysed into understandable forms based on prior experiences. He however adds that what an individual interprets or perceives may substantially differ from reality.

Arterberry (2008) also puts forward two general views of perceptual development: constructivism and ecological views. According to Arterberry, constructivism emphasises the construction of perception through learning. For the constructivist view, the starting point is trying to make sense of sensations. In the ecological view, perceptual development starts at a very different point. Predictions for perceptual development based on this view are that some abilities may be present at birth and those that emerge later are based on a fine-tuning of perceptual processes rather than the emergence of those processes. Thus, a complete process of perceptual development takes into account, physical maturation, the role of experience, and a developing sensitivity to information (Arterberry, 2008).

The teacher is an important element in classroom interaction. As such their perceptions do have an impact on what they teach and how they teach it. Baylor and Ritchie (cited in Miima, Ondigi, & Mavisi, 2013) argue that the use of technology in the teaching and learning process depends to a large extent on teachers' perception, which is a key factor in determining their pedagogical practices. Raman & Mohamed (2013) support the idea by indicating that teachers' perceptions are vital as it will determine their level of technology usage in their lessons. Zhao (2004) posits that "without teachers' acceptance and commitment to technology use, integration of technology into curriculum is not likely to succeed" (p.30). Teachers' perceptions about the use of technology in teaching can therefore affect their efficiency or practical use of technology in History lessons.

Amengor (2011) studied the perception of History teachers towards ICT in the teaching and learning of History. The study reported that 95.6 % of the respondents believed ICT makes teaching more effective, 80.6 % believed ICT helps to meet the varying needs of students while 85.1% believed ICT increases their productivity. The results show that the teachers had fairly good perception towards ICT. This is because the History teachers believe that ICT will bring them and their students' advantages, such as making their teaching effective, meeting the varying need of students, motivating their students, promoting collaboration among students, enhancing students' interest and increasing teachers' productivity.

Another study by Haydn (2001) on ICT and History teachers reported that most teachers expressed fairly positive views about the potential of ICT to improve teaching and learning in History, although many also stated that they felt under pressure to use computers in their teaching. Studying the perceptions of Social Studies teachers towards the use of technology, Gulbahar & Guven (2008) reported that teachers believed that technology will bring them advantages, but lacked the basic skills of computer usage.

In a survey conducted by the European Association of History Educators (EUROCLIO) (1998) on the use of ICT in History Education in Europe, it was revealed that while young History teachers were able to use computers, the elderly teachers had strong resistance to them. According to the study, younger teachers were found to be more interested and better skilled at using computers in their lessons. Again, the study found that in Malta, the general attitude of History teachers towards using ICT in History education was negative in the case of both older and younger teachers. Notwithstanding, the study concluded that young History teachers have positive perceptions about using ICT in History education.

Buabeng-Andoh (2012) as part of his study explored teachers' perception of technology in giving instruction. According to the findings, majority of the respondents perceived that ICT can offer opportunities to teachers to obtain educational resources from the internet to enrich course content and also can improve teaching and learning processes. Again, majority of the respondents also agreed that ICT can enhance students' participation and feedback to teachers and also improve students' collaboration. The study concluded that teachers' perceptions of the application of ICT in the teaching and learning environment were positive. These studies demonstrate that teachers of History value the use of technology in their lessons. Clearly, teachers' perceptions of ICT are likely to be crucial in their successful integration. It could therefore be deduced from the related studies above that History teachers who have positive perceptions about technology are likely to use more of such technologies in their lessons. These positive perceptions must be seen in teachers' actual adoption of technology in the teaching process.

2.2 Extent to which teachers use technology

The frequency or otherwise of History teachers' use of technology in teaching largely depends on their perceptions and well as the conditions of the institutions in which they work. These conditions notwithstanding, Fisher (2000) observes that teachers of History "should view ICT as a tool that can make the teaching and learning of History more stimulating, rewarding and rigorous for all" (p.48). According to Earle (2002), using technology in teaching is to the teacher, a very personal process. He adds that it involves teacher preparation, teacher commitment, teacher follow-up and resolved teacher concerns as well as a three-level process of confidence, competence, and creativity. Again, he contends that the focus of the integration of technology should be on the effectiveness of teaching and learning and that "teachers need to be able to make choices about technology integration without becoming technocentric by placing undue emphasis on the technology for its own sake without connections to learning and the curriculum" (p.16). Field (2003) adds that History teachers should use technology when they can identify its benefits to the lesson. He continues that there is no point at all for History teachers to use ICT just for its own sake. Thus teachers should not ask what History can do for technology, but ask what technology can do for History. In adapting to technology use, Field (2003) observes that History teachers must ensure that the objectives of using the technology are clear, and highlight how it helped achieve those objectives.

A study by Ruto & Ndaloh (2013) on the use of instructional materials for the teaching of History and Government in Kenya found that 62% of teachers in the study used textbooks frequently while 54% used maps. Again, 80% of the respondents reported to have never used the radio in teaching History and Government in their schools with only 3% reporting frequent usage. This study is corroborated by that of Oppong (2009) who reported that apart from the History textbook, History teachers did not make use of other instructional and technologically oriented resources such as audio media, visual media and audio-visual media in History lessons.

A similar study by Adeyinka (1989) also revealed that technology aids such as television and radio, slides, projectors, films and film-strips were either never used to teach History in majority of schools or only sometimes or rarely used in a few of them. The results of these studies show that the use of technology tools for instruction is an area which has not been explored by most History teachers.

The European Association of History Educators (EUROCLIO) (1998) conducted a survey on the use of ICT in History Education in Europe. It was reported that CD-ROM was the most widely used form of ICT in History education, followed by computers. The results also indicated that some countries have special websites for educational purposes. According to the study, though ICT was used in History education in several countries, they were not generally and very frequently used as its use was restricted to a certain schools and a few teachers.

Doppen (2002) in his study also indicated that History teachers used computers for curricular and instructional purposes as well as administrative tasks, such as recording students' grades, and posting them on the Internet. Again, teachers in the study agreed on using technology to teach Historical thinking, multiple perspectives and Historical empathy.

In his study on History teachers' use of ICT, Haydn (2001) revealed that a few teachers made substantial use of ICT in their History lessons, while most respondents fell between 'some', and 'little' use. Almost all respondents said that they used television and video more often in the classroom than computers. Very few respondents however reported using ICT extensively for assessment purposes. This study indicates that television and video were used more frequently in the teaching of History and thus was seen as the most helpful resource for teaching History.

2.3 Challenges to Technology Use

The use of technology in teaching is effective in making teaching better and improving students' learning. However, like any other endeavor, teachers are bound to face some challenges in their attempt to integrate technology into their classroom activities. Raman & Mohamed (2013) observed that there are several obstacles that affect the frequency of the use of technology among subject teachers. To Anderson (2008), most of these challenges arise as a result of the required changes that accompany the introduction of new technology into the classroom. He adds that many educators feel the onset of technology-based instruction is intimidating, intrusive, and aimed at replacing traditional modes of instruction. Bingimlas (2009) posits that studying the obstacles to technology integration in education will help educators overcome them and become more proactive technology adopters in the future. He adds that identifying the possible challenges to technology integration in schools is an important step in improving the quality of teaching and learning.

Maholwana-Sotashe (2007) lists the following as challenges teachers face in technology integration; unavailability of infrastructure, lack of hardware and software, lack of internet access, lack of ICT competent teachers, insufficient training, resistance to change and insufficient knowledge possessed by teachers, lack of technical support, insufficient funding, and lack of appropriate ICT policies. Similarly Choudhry & Buchanan (2009) cite reliability, lack of time and lack of training among the challenges. Morehead & LaBeau (2005) recognise time as the greatest inhibitor to technology integration.

Doppen (2002) as part of his study examined the factors that affect History and Social Studies teachers' use of technology in classroom instruction. The results showed that the major barrier to the use of technology was the teachers' own self-efficacy. The study reported that whether the technology infrastructure was optimal or inferior did not appear to matter. Rather, it was the teachers' individual disposition that determined whether they integrated technology in the classroom or not.

Amengor (2011) discovered in his study that History teachers face numerous barriers in their efforts to use technology in teaching History. The results showed that 71.6% of the respondents agreed that they did not have sufficient time to prepare instructional materials using ICT whiles 77.6% agreed that they did not have enough technical knowledge to prepare instructional materials using ICT. Again, 86.6% agreed that they did not have easy access to computers, overhead projectors, printers and scanners, 73.2% pointed to insufficient instructional software, 79.1% agreed to the absence of a reward system to encourage ICT usage whiles 52.2% of the respondents agreed that deficiency in professional development opportunities for teachers was a major barrier

Haydn (2001) also found in his study that 30 out of 42 History teachers indicated lack of time to plan how to integrate computers into History lessons as the most influential, and the most common barrier to ICT use. This was closely followed by difficulty in getting access to computers, and the pressure to cover curriculum content. Other barriers indicated by the respondents were lack of confidence/knowledge of how computers work, anxiety about the classroom management implications of the use of computers, and ideological resistance to the use of computers.

3.0 Methodology

The descriptive survey design was adopted for the study. The target population for the study comprised all teachers of History in all the Senior High Schools that offer History in the Cape Coast metropolis. However, the accessible population was made up of History teachers in three (3) conveniently selected Senior High Schools that offer History in the metropolis. In the three schools, there were six (6) History teachers. The census method was used to select all six History teachers. This formed the sample size for the study. The instrument used for collecting data was the interview guide. The structured interview guide, made up of both open-ended and closed-ended questions covering all the research questions, was employed to interview the History teachers. Each teacher was interviewed separately and their responses recorded. The interview lasted for about 25 minutes for each teacher. Data gathered from the interview were categorised in relation to the research questions raised, inferences from literature were then drawn to support the findings.

4.0 Results and Discussion

4.1 Teachers' Perceptions about Technology Use

The focus of this section was to find out the perceptions teachers have of the use of technology in teaching History. It was gathered from the interviews that teachers generally have positive perceptions of technology use in History lessons. The study found that teachers believed that technology makes History more concrete and not abstract, making it easily comprehensible and more lively as well as making them meet the varying needs of students. It was also found teachers saw technology as something that can help students to easily recall events, make contributions in class and also ask questions because they understand the events better. This result is in consonance with previous findings of studies by Amengor (2011); Buabeng-Andoh (2012); and Haydn (2001). These studies reported that teachers saw technology as being useful in meeting the varying need of students, motivating their students, promoting collaboration among students, enhancing students' interest, enhancing students' participation, and helping students understand concepts in more effective ways. Other findings of this study indicate that technology increases teachers' motivation to teach History and makes teachers teach effectively. It could thus be said that teachers see technology as crucial in determining their inclination, dedication and commitment toward teaching History.

4.2 Extent of Teachers' Technology Use in Teaching History

This section sought to find out how frequently teachers used technology in the teaching of History. It again aimed at finding out the ways teachers employed technology in class and also sought to know whether teachers, apart from using technology in the classroom, also employed technology for other educational purposes. The results show that most History teachers did not make use of technologies in teaching. Even those who used them did so occasionally. This implies that History teachers are likely to rely heavily on the History textbooks and other resources that may not stimulate the interest of students. This concurs with earlier studies by Adeyinka (1989); Oppong (2009) and Ruto & Ndaloh (2013) that History teachers used textbooks frequently and did not make use of other instructional and technologically oriented resources such as audio media, visual media and audio-visual media in History lessons. On the use of technology for other educational purposes, the findings of the study are consistent with studies by Doppen (2002); and Haydn (2001). These studies showed that History teachers used computers for curricular and instructional purposes such as researching information on Historical

topics and the preparation of teaching materials, as well as for administrative tasks, such as performing assessment, recording students' grades, and posting them on the Internet.

The findings suggest that teachers do not make frequent use of technology in teaching History eventhough they used them for other educational purposes. It could thus be said that teachers of History, to a large extent, do not employ technology in their teaching activities

4.3 Challenges Teachers Face in Using Technology to Teach History

The findings point out that the unavailability of technology resources was a major problem to teachers' use of technology. This confirms the position of Maholwana-Sotashe (2007) that unavailability of infrastructure, lack of hardware and software, lack of internet access and other of ICT resources as factors for low technology patronage among teachers.

Another challenge found was time. Teachers complained they did not have enough time to use technology in class. This result is consistent with the results of previous studies by Amengor (2011); and Haydn (2001). These studies concur on teachers' lack of have sufficient time to prepare instructional materials using technology as well as time to plan how to integrate computers into History lessons as the most influential, and the most common barrier to technology use. Again, the study found that lack of administrative support was challenge that militated against teachers' desire to employ technologies in teaching History. In all the findings revealed that teachers faced a major challenge with the unavailability of technology resources that could be used to teach. Another challenge found was the lack of time to use the various technologies in class as well as the lack of motivation from the school administration in terms of the provision of the needed technologies for teaching. These challenges, to a great extent, hindered teachers' use of technology in the teaching of History.

5.0 Conclusions and Recommendations

History teachers have positive perceptions of technology in the teaching of History. This could be as a result of the advantages technology brings to the teaching of History. History teachers should translate their positive perceptions of technology into practical use of technology. School heads should make teachers inculcate the habit of making the teaching of History concrete by adopting one or more technologies in their lessons to facilitate teaching and also aid learning.

Also, History teachers sparingly use technology for instructional purposes. It is likely that they resort to the traditional methods of teaching the subject, without any technological innovation. It is recommended that History teachers should be made to know that technology use is not restricted to entering students' grades and keeping records. They should be made aware of the many different ways of using technology to facilitate instruction. Teacher associations must also conscientise their members about the role of technology in education. Again, teachers must be innovative and creative and know how best to diversify their mode and manner of use of technology both for instructional and other educational purposes.

Furthermore, History teachers' low patronage of technology in lessons is as result of the challenges they face. These challenges gradually erode their intrinsic desire to employ technologies in their lessons. The government through the Ministry of Education must make technology resources like computers, projectors, television, atlas, videos, among others available in Senior High Schools. Again, school heads should ensure that History is given the required number of periods on the school time-table. This would help teacher get enough time to plan and use technology in their lessons.

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