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PUPIL'S ATITTUDES TOWARDS ICT INTEGRATION IN A SOCIAL STUDIES CLASSROOM: A CASE OF AZELE GUZE VILLAGE ZAMBIA

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ABSTRACT

The use of information and communication technologies (ICT)s in education systems in Zambia has become more popular especially in urban areas. Additionally, it has been realised in recent years that there are immense benefits in applying ICTs in the social studies classroom. Among others, the benefits include enhancing pupils' levels of understanding and attainment in social studies. Consequently, the Ministry of General Education (MoGE) and some non- governmental organisations (NGOs) such as iSchool and Impact Network, advocate for, and promote the use of ICTs in the classrooms. A case in point is that of Waseka Primary school in Katete rural district in a Village called Azele Guze. The aim of the study was to find out pupils 'attitudes towards ICT instruments used in a social studies classroom. The study was guided by the theory of Diffusion of Innovation which is one of the most utilized theories in the studies related to ICTs integration in education. In this theory, Rogers (2003) asserts that the adopter's attitude is a crucial factor for adoption of a new technological innovation. Thus, the attitude pupils portray towards the ICTs used in the classroom, might influence the success or failure of such an intervention. The study used a case study design, qualitative methods and instruments of data collection were also used for the purpose of collecting in-depth information. The findings revealed that children of Azele Guze Village attending school at Waseka primary hold positive views towards the use of ICTs in the learning of Social Studies. As a result, attendance and performance of the pupils had greatly improved. The study further showed that although there were ICTs available in the classrooms, they were not adequate to the extent that each pupil could have one and use at the same time in the classroom. Resulting from the findings, the study recommends that the MoGE should enact the ICT draft policy, which will give proper direction and guidance to schools and stakeholders on the Ministry's official position regarding the use of ICTs in education. Further, it is recommended that the school managers should take a proactive role in collaborating with government and other non-government organisations to lobby for support in the supply of necessary ICTs instruments to be used during teaching and learning processes.

Key Words: Pupils, attitude, information communication technology (ICT), social studies

Background

The government of Zambia has placed great emphasis on information and communication technology (ICTs) for its potential to accelerate social economic development. This has been demonstrated by its inclusion in the Fifth National Development Plan (FNDP), 2006 -2010; by the country's participation in the E-African Commission; by the enactment of the ICT policy; and, more currently, by the MoGE Draft ICT policy (Mwale, Chilala & Kumar, 2011). As a result, ICTs integration in different sectors of the economy including education is being supported

Authorities governing Zambian education, scholars alike and some actors in the private sector, are also emphasizing the importance of imparting pupils with knowledge, skills values and attitudes for independent and meaningful learning. Doolittle & Hicks (2003) have argued that this aim can be achieved better with the integration of ICT into teaching and learning processes. In addition, the philosophy that undergirds school curricula in Zambia has also shifted towards constructivism an epistemology that advocates for pupils to be active seekers of knowledge rather than passive recipients of it. Constructivism challenges the traditional goals of education and proposes re-structured and innovative teaching approaches such as use of ICTs (Ayas, 2006). Constructivism essentially endorses the idea that the learner constructs his or her own knowledge by use of new forms of pedagogies such as ICTs (Doolittle and Hicks, 2003; Rice and Wilson, 1999; Roblyer & Edwards, 2000; Sunal & Hass, 2002; Windschitl, 2002).

In the teaching and learning of social studies, ICT is an important tool. This is so because the social studies curriculum in Zambia is both interdisciplinary and multidisciplinary meaning that it covers content and methods from the social sciences (history, civic education geography and religious studies). The implication of this is that the subject of social studies deals with a myriad of abstract concepts and themes that may prove difficult for some young pupils in primary schools whose cognitive skills are still developing. Thus, the integration of ICTs in the social studies lessons simplifies and brings to reality abstract issues. For instance, a YouTube video in a social studies classroom would bring to reality the abstractness of the stages of a river from the source to the mouth. In dealing with this problem, Beck & Eno, (2012) have asserted that ICT integration into education might also have some ramifications for social studies. Dede (2008) adds that ICTs also have the ability to bring visual images of real life experiences through movies, documentaries and still images into the classroom.

What's more, the children in rural areas who have never experienced life in the city, are given an opportunity through social studies lessons and by use of ICTs such as videos, to experience reality in the classroom. In support, Yanpar, (2011) as quoted in Cener *et.al* (2015) noted that social studies is about real life for the real world. Thus, it is important to incorporate real life issues in dealing with social studies pupils. It is also true that pupils' learning is more lasting when they deal with real life situations and when they see, hear, feel and touch during the teaching learning processes.

In line with Zambia's policy direction to integrate ICTs in education there are initiatives and projects currently being implemented. These include: 'Computers for Zambian Schools', a registered trust established by the local educational and ICT specialists, representatives from the British Council; 'School Net Zambia', an initiative that promotes access to satellite television and video in schools; 'One World Zambia', involved in lobbying and advocacy in ICTs for developmental issues, including education; 'iSchool Zambia', involved in the selling of classroom tablets installed with the Zambian primary school curriculum and teachers' short courses as a form of Continuing Professional Development (CPD); and 'Impact Network' concerned with the distribution of iSchool teachers and pupils tablets in schools in Katete rural district in the Eastern Province of Zambia (Isaacs, 2007).

Statement of the problem

In today's changing world, there has been a recognition that there is need to integrate ICTs in Education. The role that lCTs play in every sector of the economy cannot be overemphasised be it in health, education or governance. This is because of the worldwide recognition that lCTs can advance both the learning and teaching processes for both the learners and the teachers respectively (Njobvu et al, 2010). As a result, the ICT policy with regard to education aims at integrating ICTs in the education system, including primary education. Consequently, there have been efforts to promote and facilitate the integration of ICTs in the teaching and learning processes in the primary school curriculum, including social studies (Ministry of Communication and Transport (MCT), 2006). However, we do not know the attitudes of rural based pupils towards the use of ICTs instruments in the teaching and learning of social studies. If attitudes are negative, pupils are less likely to participate effectively or enjoy their lessons consequently, compromising their attendance in school and their performance in class. On the other hand, if attitudes are positive, it would be necessary to ensure that they are used efficiently, effectively and for the right purposes, hence this study

Study objectives

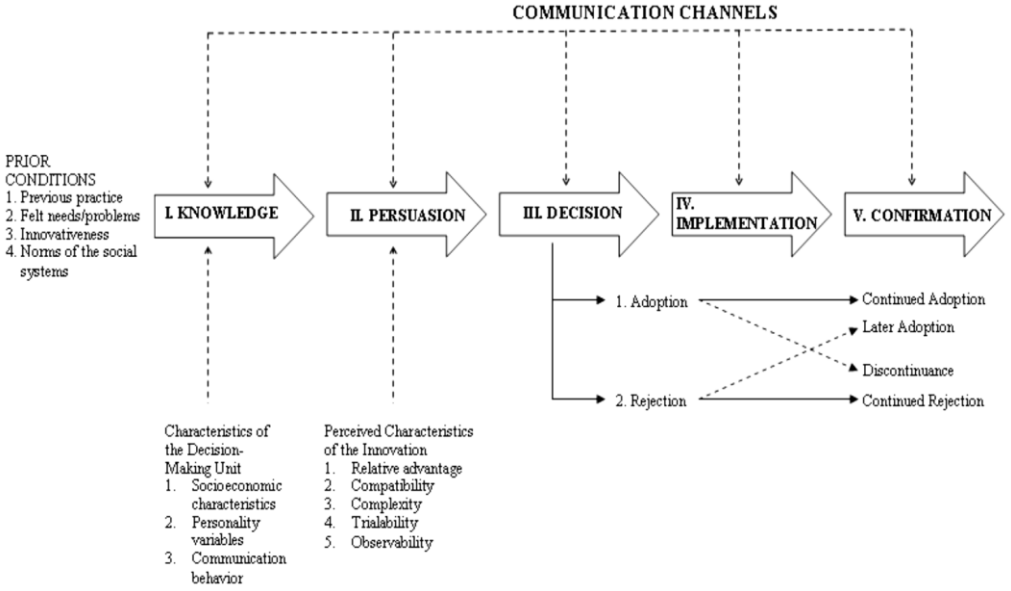
a) To establish the availability and relevance of ICT tools at Waseka primary School.

c) To find out pupils' attitudes towards the use of ICTs in a social studies class at Waseka

Theoretical framework

This study was guided by the Diffusion of Innovation theory (Rogers, 2003), which provides a theoretical framework to ICT integration in education. In this theory, Rogers stresses the centrality of a user's attitude towards a new technology or innovation. He asserts that the adopters' attitude is a major determinant of the adoption or rejection of a new technological innovation in education. Rogers also argues that the innovation-decision process involves five steps: (1) knowledge, (2) persuasion, (3) decision, (4) implementation and (5) confirmation. Hence, a person goes through these five stages while deciding on the adoption or rejection of the innovation. These stages typically follow each other in a time-ordered manner. This process is shown in figure 1.

Figure 1



Source: Sahin (2006)

The Diffusion of ICTs innovations to pupils in rural based social studies classrooms would require that they are knowledgeable of how to use the ICTs by way of the training provided to them by the teacher; understand why they are using the new innovation by persuasion, considering the perceived characteristics of the innovation as shown in Figure 1, which speaks to the attitudes; and then decide on whether to adopt or reject it. If they do accept it then it can be implemented and confirmed.

Literature review

In his study, Ayas (2006) notes that it is almost impossible to ignore the pervasiveness of information technology within education and that technology has become a valuable resource to educators. Similarly, Almekhlafi and Almeqdadi (2010) affirm that technology integration in the classroom has become an important aspect of successful teaching because it allows students to learn more in less time and, also allows schools to focus on global learning environments if used appropriately. Consequently, many researchers have tried to investigate such integration (Zhao, 2007; Almekhlafi and Almeqdadi, 2010; Ayas, 2006; Isaacs, 2007 and Monteith, 2004). Among other issues, the present study attempted to establish whether rural based teachers appreciate ICTs available in their school, as an influence on the ways in which their pupils perceive these ICTs.

According to Lam and Lawrence (2006), technology not only gives learners the opportunity to control their own learning process, but also provides them with ready access to a vast amount of information. On the other hand, Jonassen, (2000) adds that during the 20th century, education embraced technology believing that it could facilitate unique learning environments or contribute unique features to make traditional learning more powerful and effective. Technology promised smarter, better educated and more fulfilled learners. The significance of the works by Lam and Lawrence (2006) and Jonassen (2000) is that they touch on aspects that the current study explores. For example, the present study seeks to confirm whether issues raised by the two scholars are true for Zambia, especially in the rural areas of the country.

A comprehensive study by Mason *et al* (2000) presented guidelines for the use of technology within social studies education, suggesting that social studies educators need to focus on (a) utilising technology to engage students in learning experiences that are impossible without it, (b) integrating technology to support student learning not just to teach technology skills, (c) reducing the digital divide, while presenting learning experiences with technology that encourages critical thinking and decision-making skills in all students, (d) developing the knowledge and skills necessary for students to be active and productive citizens in a democratic society, and (e) conducting ongoing investigations of how technology can be used to enhance teaching and learning in the social studies.

Masons *et al'*s (2000) study is similar to the current study in that both studies focus on the use of ICTs in social studies education. While focusing on some of the aspects pointed out in Masons' study, the current study will further attempt to understand in detail the attitudes pupils hold with regard to the integration of ICTs in the teaching and learning of social studies.

Research design

The study largely used qualitative methods and instruments of data collection, processing and analysis. Since the study sought to have an in-depth understanding of pupils' attitudes towards the integration of ICTs in the teaching and learning of social studies, a case study was used.

Study site and setting

Waseka Community School is found in the Eastern Province of Zambia in a village called Azele Guze, in Katete district which is about 490 kilometres away from Lusaka, the capital. It was originally constructed by Care International but was later adopted by Impact Network in 2013 which implemented the eSchool 360. This was a holistic solution that empowered teachers with ICT knowledge and skills for efficient and effective lesson delivery. Impact Network has partnered with iSchool in training and supplying teachers with ICTs at the school. Waseka primary school is among the ten (10) schools in Katete rural that are running the eSchool 360 Project. Waseka serves children from Azele Guze village and other surrounding villages, in Katete.

Target population

Pupils, teachers and the head teacher at Waseka Primary School constituted the target population. This target population was considered to be ideal because it was directly involved in the integration of ICTs in the teaching and learning processes in the primary school curriculum, including social studies.

Sample size

The sample size was 30 consisting, 3 teachers, 1 head teacher, 1 project manager and 25 pupils.

Sampling procedure

The researcher used simple random sampling and purposive sampling techniques. Purposive sampling was used to select the school because the researcher wished to investigate only schools implementing the e-learning programme. The head teacher, project manager and

teachers were also purposively selected. Random sampling was used to select the pupils so that each pupil in the classroom could have an equal probability of being included in the sample.

Research instruments

The instruments used in collecting data were as follows: A structured interview for the one-on-one discussion with teachers, head teacher and project manager, a focused group discussion with the pupils and a structured lesson observation sheet.

Data analysis

A qualitative analytic method called thematic analysis was used in this study. Braun and Clark (2006) assert that thematic analysis in-tells identifying, and reporting patterns (themes) within data. It minimally organises and describes the data sets in detail. However, frequently it goes further than this, and interprets various aspects of the research topic. In the current study, codes were generated from the data and then themes identified. Thereafter, themes were reviewed, defined and issues emerging under each theme interpreted.

Findings and discussions

ICTs availability and relevance at Waseka Primary School

There was evidence that Waseka primary school had integrated ICTs in the teaching and learning processes under the e-learning program conducted by Impact Network. Impact Network had provided teachers' and pupils' tablets, laptops, projectors and speakers. However, emerging empirical evidence from interviews and observations clearly showed that the ICTs available at the school were in short supply. For instance, pupils shared tablets during the lessons.

The problem of inadequate ICT tools in schools is not only common to Waseka primary but to most schools in Zambia. Similarly, in their study, Hennessy *et al* (2011) demonstrated that there is either luck or inadequate ICTs tools in most schools in Zambia and Africa. The head teacher and projector manager noted that since there was no policy direction guiding schools to integrate ICTs in the teaching and learning processes in primary schools, the MoGE has not prioritised the purchase of ICT tools in primary schools. Be that as it may, there is need for the school to take a pro-active role in lobbing for funds to purchase the ICTs required at the school.

As the case was, Waseka primary was largely dependent on the MoGE and Impact Network to provide ICTs tool required at the school.

That said, availability of these ICTs at Waseka is important because it has a bearing on the pupils' attitudes. Availability, also means that pupils have hands on experience with the ICTs hence are knowledgeable. In addition, teachers reported that pupils were trained in the use of the available ICTs tools hence, faced little or no challenges in their use. What this means, as Rogers (2003) puts it in his theory is that pupils will be able to appreciate the importance of ICTs in the classroom thereby, developing a positive attitude towards the new innovation.

Encouragingly, teachers supported the idea of integrating ICTs in the classroom. This is important because, the support teachers give pupils in the implementation of ICTs in the classroom has a bearing on the pupils attitude. One teacher specifically stated that "*ICTs in education is the way to go because the world today is largely influenced by technology*. *Technological changes in society have also affected education in as far as teaching and learning is concerned*." This is in line with a study conducted by Mikre (2011: 1) which asserts that:

> "ICTs are making dynamic changes in society. They are influencing all aspects of life. The influences are felt more and more at schools. Because ICTs provide both students and teachers with more opportunities in adapting learning and teaching to individual needs, society is, forcing schools aptly respond to this technical innovation."

In addition, the study revealed that the available ICT tools at the school were relevant for the teaching and learning of social studies. Interviews with teacher also showed that ICTs led to positive motivational outcomes, focused learning and handling of learning tasks. For instance one teacher explained as follows:

> "*ICTs make work easy for both the teacher and pupils, for instance, when learning about the market or the industries in the cities, pupils are able to see pictures of how the people at the market move, behave and speak and how these industries operate. This helps them understand the lesson better, respond positively to tasks and encourages them to come to school the following day*."

Findings further showed that ICTs available at the school were relevant because they promoted constructivist ways of learning. That is to say, pupils are actively involved in the learning

process thus, able to make reasoned and informed decisions concerning challenges of their communities. These findings are in tandem with what Sunal and Hass (2000) state. For their part, Sunal and Hass (2000) assert that constructivism is a learning theory based on the notion that people are active knowledge seekers powered by innate curiosity. Thus constructivism challenges the traditional goals of education and proposes re-structured and innovative teaching approaches such as ICTs (Ayas, 2006). In his theory, Rogers (2003) demonstrates that for an individual to have a positive attitude towards an innovation, it should have relative advantage over previous methods. Clearly, constructivist methods of teaching and learning have relative advantage over traditional methods.

Pupils' views towards ICTs integration in a social studies classroom

From the observations, Pupils showed confidence and seemed to enjoy the social studies lessons. For example, one pupil mentioned that *I enjoy Zupads (pupils' tablets) because there are nice cartoons and I can easily workout my tasks'.* The motivation arising from the use of these ICTs was linked to enhancements in social studies attainments. Teachers said that pupils using tablets were able to retain what they learnt much easier than those they taught without the tablets. Pelgrum (2001: 2) supports these findings by noting that ICTs are not only the backbone of the information age, but also an important catalyst and tool for inducing educational reforms that change our students into productive knowledge seekers.

It was also revealed that both girls and boys were eager, confident, independent and free to use ICTs in the social studies lesson. For instance, at the beginning of the lessons, pupils impatiently received the tablets and at the end of the lesson unwillingly, handed them back to the teacher. Teachers also, reported that sometimes pupils go beyond them in working out tasks. These findings are supported by Passey et al (2004) whose study reported that pupils gained confidence because they could do things and show things they had not been able to do before, that they could explore more, and share ideas with others without fear.

The study further established that teachers' attitudes towards ICTs integration in the teaching and learning processes of social studies were positive because ICTs supported effective implementation of the curriculum. In turn, this positively influences the pupil's attitudes. A study by ("Primary Induction", n.d:8) is supportive of the findings of this study as it states that:

> "ICTs contribute to raising standards across the curriculum by improving the effectiveness of teaching. Teaching materials that use ICTs allow pupils to engage with the content of the lesson in a variety of ways visually, with

> sound and movement, and with the ability to revisit and repeat learning as required. Pupils can be actively involved in their learning exploiting the interactivity and the potential for communication that ICT offers."

In addition, data obtained from the interviews with the teachers showed that absenteeism reduced and attendance increased. Meaning ICTs have an encouraging effect on the pupils. These findings are supported by Barton (2007) (quoted in Omollo, 2013) who indicated that ICT can motivate students in their learning by bringing variety into the lessons and at the same time sustaining pupils' own interest in learning.

Teachers further claimed that no doubt, their pupils were always excited and interested to use tablets or the projector and screen during the social studies lessons. As such, their attitudes towards these ICT tools were deemed positive. Teachers justified their claim by asserting that pupils concentrate during lessons and are able to know and see the world's current affairs by browsing the internet. It was their view that because of the usage of ICTs, teaching and learning had changed for the better as well as the pupil's attitudes. As one teacher explained:

> "Teaching has changed for the better especially the teaching of social studies. Those past years we were just using books, pupils were not able to answer some questions but now by seeing pictures and videos on the tablets and projectors, they are able to answer several questions."

Teachers also reported that as compared to traditional methods of teaching and learning, ICT tools are not complex as other may assume. Observations showed that both pupils and teachers used the tablets with easy. On his part, Rogers (2003) shows in his theory that the adopter should demonstrate that the new intervention in this case, (ICT tools) is not complex in comparison to the previous methods. Once an individual demonstrates this, it is clear that acceptance is eminent.

The focus group discussion established that integration of ICTs in the social studies lessons encouraged interactive and collaborative learning. The teachers reported that their pupils were freely and actively interacting with the teacher and with each other and that this produced positive observable results. In line with this, Arinze *et al* (2012) point out that:

> "making use of the internet in social studies lessons could result in breaking down boundaries, getting young people to know each other and to appreciate each other' views and cultural backgrounds. Thus with the use of internet in social studies classes, the role of the teacher changes from that of gatekeeper of knowledge to that of facilitator and manager of the learning environment."

Remarkably, the findings above are in tandem with the diffusion of innovations theory by Rogers (2003) who alleges that if the innovation is producing observable results then the individuals involved with the innovation are mostly likely going to accept the intervention. Acceptance is a sign that attitudes towards the intervention are positive.

Data from interviews further revealed that ICTs in social studies make children's global society smaller as it brings the globe into a small class. Equally, MCT (2007) indicates that ICTs can be used to bridge the digital divide within the context of globalization. By bridging the digital divide, the global society is made smaller. As a result of ICTs bringing the global society in the classroom, pupils seemed interested and persuaded to use ICTs at all times. For example, the teachers reported that during lessons on cultural diversity, pupils demanded the use of a projector and screen in order to be able see and hear as they learnt. In Roger's (2003) diffusion of innovation theory, persuasion is an important aspect in determining the attitude an individual has towards an intervention. If persuaded, an individual is likely to adopt the intervention.

Teachers also explained that social studies is a subject that deals with abstract concepts. Therefore, if ICTs enable pupils to see things, hear sounds, and concretise concepts, the new pedagogical practice is worth adopting. Findings also revealed that ICTs, via the internet, are a source of a vast amount of information that is essential to social studies. Scholars such as Cooke (2010) in Arinze *et al* (2012: 270) echoes support for this finding in the subsequent quote.

> "The net possibly is the largest store of information on this planet. Everybody can be part of it. It is one of the few places where races, creed, colour, gender do not prejudice people against others… communication is key… the net is people helping each other in a world-wide community."

From further observations, there were indications that ICTs impacted positively on the behavior of the pupils in the classrooms. There was less noise and unnecessary movements in the classroom as pupils concentrated on their tasks. Generally the pupils' attitudes towards the use of ICTs in the social studies classroom were positive due to the motivational effect ICTs had on them.

Conclusion

Despite being located in a rural area, once provided with the right knowledge (training) and persuasion, pupils can adopt new technological innovations in education without difficulty. In line with the theoretical framework discussed the findings of the study show that pupils

instinctively submitted to the attributes of technology suggested by Rogers (2003) which speak to whether the user, in this case the pupil, accepts or rejects the innovation. Clearly, attitudes and dispositions are important factors that have an effect on teaching and learning processes. Attitudes play a major role on pupils' motivation and learning. Thus, educators have been trying to understand ways in which learning is best nurtured through improved attitudes of learners (Cener et al, 2015).

Recommendations

- The MoGE should enact or implement the ICT Draft Policy so as to guide schools and stakeholders on the Ministry's official position regarding the integration of ICTs in education.
- The MoGE should subsidise the purchase of ICT tools to ensure their wide availability in schools.
- School managers should take a proactive role in collaborating with government and other non-government organisations to lobby for support in the supplying of necessary ICTs tools to be used during teaching and learning processes.

References

Almekhlafi, A. G., & Almeqdadi, F. A. (2010). Teachers' perceptions of technology integration in the United Arab Emirates school classrooms.' *Educational Technology & Society,13 (1), 165–175*.

Arinze, F.O., Okonokwo, E.N. and Iwunor, A.N. (2012). 'Information and Communication Technology (ICT) Application in Secondary Schools and Students' Academic Performance in Social Studies.' *African Research Review, 6(4),* 266-278.

Ayas, C. (2006). 'An Examination of the Relationship between the Integration of Technology into Social Studies and Constructivist Pedagogies.' *The Turkish online Journal of Education, 5 (1).* 14-25.

Beck, D. & Eno, J. (2012). "Signature pedagogy: A Literature review of social studies and technology research." *Computers in Schools, 29, 70-94.*

Braun, V. & Clarke V. (2006). 'Using thematic analysis in Psychology' *Qualitative Research in Psychology, 3: 77-101*.

Cener, E., Acun, I. & Demirhan, G.(2015). 'The impact of ICT on pupils' achievement and attitudes in social studies' *Journal of social studies Education Research, 6(1): 190-207*.

Dede, C. (2008). Theoretical perspectives influencing the use of information technology in teaching and learning. In J. Voogt, & G. Knezek (eds,), International handbook of information technology in primary and secondary education (pp.43-59). New York: Springer.

Doolittle, P. E., & Hicks, D. (2003). 'Constructivism as a Theoretical Framework for the use of Technology in Social Studies.' *Theory and Research in Social Education, 31 (1): 71-103.*

Hennessy, S., Harrison, D.,& Wamakote L. (2011). 'An Investigation of Appropriate new Technologies to Support Interactive Teaching in Zambian Schools.' *Itupale Online Journal of African Studie, 2 (1): 39-54*.

Isaacs, S. (2007). *Survey of ICT and Education in Africa: Zambia Country Report*. www.infodev.org Accessed 8/15/2013.

Jonassen, D. H. (2000). *Computers as Mind Tools for Schools: Engaging Critical Thinking*. Columbus: Merrill Prentice-Hall.

Khosla, N. (2013). iSchool: *Transformative Learning in Zambia Classroom*. www.api.ning.com. Accessed 14/01/2015

Lam, Y., & Lawrence, G. (2002). 'Teacher-Student role Redefinition during a Computer-Based Second Language Project: Are Computers Catalysts for Empowering Change?' *Computer Assisted Language Learning, 15 (3): 295-315.*

Lortie, D.C. (1975). *School Teacher: A Sociological Study*. Chicago: University of Chicago Press

Mason, C., Berson, M., Diem, R., Hicks, D., Lee, J., & Dralle, T. (2000). 'Guidelines for using Technology to prepare Social Studies Teachers.' *Contemporary issues in technology and teacher education,1 (1): 107-116.*

Mikre, F. (2011). *The Role of information communication technologies in Education*. Retrieved on 17/03/2015 from. www.ago.info/index.php/.../article.../624

Ministry of Communication and Transport, (2006) *National Information and Communication Technology Policy.* Lusaka, Zambia.

Ministry of Education, Science, Vocational Training and Early Education, (2012). *The Zambian, Educational Curriculum Framework 2012*. Lusaka: Curriculum Development Centre.

Monteith, M. (2004). ICT for Curriculum Enhancement. Portland: Intellect Publisher.

Mwale, M. Chilala, M. & Kumar, S. (2011). *African Leadership in ICT: Assessment of Environmental, Institutional and Individual Capacity needs for the Knowledge society in Zambia: A situational Analysis*. www.GESCI.org/Africa-leadership-in-ict-alict.html. Accessed 6/6/2013.

Njobvu, B., Chisunka-Mwila, P.C., Daka, K.L. & Mulauzi, F. (2010). "Integration of ICTs in Education: the Level at which ICTs Training Should be Introduced in Zambia Education." Zambia Library Association Journal, *Vol 25. 182.*

Omollo, D.O., Indoshi, F.C. and Ayere, M.A. (2013). 'Attitude of Teachers and Students Towards use of Information and Communication Technology in the Implementation of Biology Curriculum in Selected Secondary Schools.' *Research Journal in Organisation Psychology and Education Studies, 2 (3): 76-83.*

Passey, D.,Rogers, C., Machella, Joan & McHugh, G.(2004). *The Motivational Effects of ICT On Pupils*. Research Report Lancaster University.

Pelgrum, W.J. (2001). 'Obstacles to the Integration of ICT in Education: Results from a Worldwide Educational Assessment .' *Computers and Education, 37 (2): 163-178.*

Peter, O.D and Rexwhite, E.R.T. (2012). 'The Utilization of Information Communication Technology (ICTs) for Effective Teaching of Social Studies in Secondary Schools in Delta State.' *Prime Research on Education,*' *21 (10): 378-389.*

Primary Induction, ICT for teaching assistant trainers. (n.d) Retrieved on 16/03/2015 form www.education.go.uk/.../prim-induction.

Rice, M. L., & Wilson, E. K. (1999). 'How Technology Aids Constructivism in the Social Studies Classroom.' *Social Studies, 90 (1): 28-33.*

Roblyer, M. D., & Edwards, J. (2000). *Integrating Educational Technology into Teaching: Upper Saddle River*. New Jersey: Prentice-Hall, Inc.

Rogers, E. M. (2003) *Diffusion of Innovations*. New York: Simon and Schuster.

Sahin-Kizil, (2011) *EFL Teacher's Attitudes towards Information and Communication Technology (ICT*). International Computer and Instructional Technology symposium, 22-24 September, 2011, Firat University, ELAZIĞ-TURKEY. www.web.firat.edu.tr

Selwood, I. & Pilkington, R. (2005). Teacher Work Load: Using ICT to release Time to Teach. *Educational Review, 57 (2): 163-174.*

Selwyn, N. (1997). 'Student's Attitudes towards Computer: Validation of a Computer Attitude Scale for 16-19 Education'. *Computer and Education, 28 (1): 35 - 41.*

Sunal, C. S., & Hass, M. E. (2002). *Social Studies for the Elementary and Middle Grades: A Constructivist Approach*. Boston: Allyn & Bacon.

Tedla, B. A. (2012). 'Understanding the Importance, Impacts and Barriers of ICT on Teaching and Learning in East African Countries.*' International Journal for e-Learning Security, 2 (3/4): 199 -207*

Windschitl, M. (2002). 'Framing Constructivism in Practice as the Negotiation of Dilemmas: An Analysis of the Conceptual, Pedagogical, Cultural, and Political Challenges Facing Teachers.' *Review of Educational Research, 72 (2): 131-175.*

Zhao, Y. (2007). 'Social Studies Teachers' Perspectives of Technology Integration.' *Journal of Technology and Teacher Education, 15 (3): 311-333.*