

Challenges Teachersface In Their Effortto Integrate ICT In Classroom Instruction: A Case Of Secondary Schools In Bungoma County, Kenya

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Abstract: A pre-determined process is important for integrating Information Communication Technologies (ICTs) in any education setting. ICTs enhance the quality of education by enabling teachers do their work well and helping students learn more effectively. At this point teachers' readiness are key factors in implementing ICTs in instruction. This paper specifically highlights some of the challenges teachers face as they adopt ICT in instruction. It was a survey carried out in selected secondary schools in Bungoma County, Kenya. Data was collected using interview schedule. Findings show that most teachers did not use ICTs for instruction because of lack of skills, negative attitude, scarcity of ICT resources, inappropriate training, lack of motivation and resistance to change which comes with newer technologies. It is therefore recommended that government allocates more funds to schools to purchase educational resources, improve teacher training with focus on ICT use, reduce workload in the present education system and organize regular workshops and seminars to improve teachers' skills in ICT use in instruction

Keywords: Information Communication Technologies (ICTs), instruction

I. INTRODUCTION

Increasing the quality of teaching and learning is an important concern to all stakeholders in the education sector. Since the beginning of this century education has faced a variety of social, cultural, economic and technical challenges. According to Januszewski and Molenda (2008) the field of education technology attempts to overcome these challenges by developing new approaches and frameworks .

In this context, Information Communication Technology (ICT) represents a new approach for enhancing the dissemination of information and meet some of the challenges facing the education sector. ICTs comprise the use of least a computer and the internet as well as computer hardware and software, and a host of devices that convert information into general digital formats (Lever, MacDonald, Mizell, 2003). According to Primo (2003) Information Communication Technology (ICT) is an umbrella term that is used to describe computing and telecommunication technologies used to create, arrest, process, disseminate, store and manage information.

They include devices like radio, television, cellular phones, and computer, internet and satellite systems.

ICTs have a host of functions, Kwapong (2007) says ICTs provide the capacity to disseminate knowledge in all kinds of human activities. In education specifically, ICT refers to modern innovative materials used as mediators in instruction, research and management of educational institutions (Riche, 2008). It includes all kinds of hard and soft media which can be used to make communication in the classroom easier for the teacher and learner. A good educational system recognizes the role and place of technology.

ICT is a powerful tool in presenting information in different ways like texts, pictures, tables and graphs (Cobb and MacClain, 2002). Educators can now use webcam technology where lessons are recorded live and uploaded on the website page for students to access (Calcampus, 2013). Modern ICTs make it possible to expand the walls of the classroom by integrating resources such as scientific data, library collections, video and film archives from across the globe (Kurbel 2001). Through ICTs wisdom and lived

experiences through resource persons makes learning real and lively.

In Kenya, experts acknowledge a surge in demand for higher education which may only be met through technology enhanced learning. Young Kenyans agree that ICT is a step towards advancement and a tool to help build a technologically literate work force to meet the changing needs of the information age. In order for ICTs to be effectively used, teachers should have knowledge and competencies so that the benefits of ICTs can be realized.

Studies by Moursund and Bielefeldt (1999), Duran (2000), Mehlinger and Powers (2002) and Bullock (2004) reveal that integration of ICTs in classroom instruction has been faced with many challenges. These can be classified as extrinsic, which deal with lack of technical support and time and intrinsic challenges which deal with teachers' benefits, attitude and vision concerning technology integration. This paper highlights intrinsic challenges that teachers face as they integrate ICT in classroom instruction.

II. RESEARCH DESIGN AND METHODOLOGY

The research was a qualitative survey which enabled the researcher to gather data on challenges teachers faced as the integrated ICT in instruction. The target population was all teachers in secondary schools in Bungoma County, Kenya. A sample of 306 teachers was selected from 342 secondary schools using simple random sampling technique. Main research instrument was interview schedule. Respondents were asked to identify some of the challenges they faced as the integrated ICT in instruction, causes of these challenges and propose some measures that can be put in place to curb these challenges. Validity of the research instrument was ascertained by experts from the Department of Curriculum Instruction and Educational Media, Moi University, Kenya. A pilot study was also done in the neighboring Trans Nzoia county. Reliability of the instruments was ascertained by use of the split half technique. A reliability co-efficient of 0.85 was obtained which was felt to be good enough for the acceptability of the instruments.

The researcher secured an interview with sampled teachers at different times without interfering with school programs. They responded to the interview questions orally as the researcher took down their views. In-depth and sometimes genuine or personal information relevant to the study was gathered by use of probing and prompting questions. Since the population was large, two assistants helped to gather data within six months.

III. RESULTS AND DISCUSSION

A. LACK OF ICT SKILLS

It was evident that most teachers (89.2%) had knowledge in ICT use in instruction. Even though, they did not actually use ICT during lessons for lack of practical skills. Lack of confidence and fear of failure before their students made teachers shy away from ICT. Technical faults due to

poor maintenance was also found to be a frustration to teachers since they were not in a position to repair faulty machines fast enough and use them for instruction.

B. INAPPROPRIATE TEACHER TRAINING

Unsuitable teacher training programs that fail to engage teachers in using ICTS during lesson preparation and delivery was also found to be a challenge. Most programs were theoretical and failed to prepare teachers to facilitate and support learning hence making it more teacher centered. In fact most teachers admitted they had been trained mostly by use of lecture method and they in turn did the same in schools. Such a method did not give room for use of media and in this case ICT. Inappropriate training leads to lack of confidence on the part of the teachers.

C. NEGATIVE ATTITUDE

Most teachers were found to have ICT gadgets but used them for personal issues like entertainment and communication. Some admitted they could not use their personal ICTs for instruction, others feared they would be rendered jobless if newer technologies were found to be better at content delivery. Further some teachers wanted to maintain their authoritative role in classroom. For some teachers, use of ICTs was time wasting yet their aim was to make as many students as possible to pass exams regardless the methods used.

D. SCARCITY AND LOW QUALITY ICTS

In some schools ICT resources were scarce, others were only used for administrative purpose, kept under lock and key with rigorous procedures to access to them and this was a frustration for teachers. The researcher also found out that some ICTs were available but of poor quality. Such would always break down just before or during use which would be very discouraging for the teacher. In many schools there were no stand-by technicians to repair the machines fast enough. Poor storage also led to destruction of some ICT gadgets.

E. LACK OF MOTIVATION

A few schools had a variety of ICT resource. Despite this, teachers did not use them because they were no longer enthusiastic about their teaching career. They sighted a big work load (minimum 27 lessons per week), a big number of students in the classes because of subsidized secondary education and the children's Act which over-protects the students. Teachers felt that they no longer had control over their students during learning. The stress on exams also made teachers just concentrates on preparing students for exams. They did not feel motivated to experiment with newer technologies.

F. RESISTANCE TO CHANGE

Integrating new technologies into education settings requires change and different teachers will handle this change differently (Watson, 1999). The present research found out that most teachers were unwilling to change their style of teaching. The lecture method was preferred and used by most teachers because they remained authoritative, syllabus coverage was faster and many students could be attended to at the same time. Use of ICTs would require them to change this approach by thoroughly researching, preparing lessons and integrating ICT during classroom instruction. This they felt would be time consuming.

IV. DISCUSSION

Dawes (2001) is of the view that new technologies have the potential to support education across the curriculum and provide opportunities for effective communication between teachers and students. Use of newer technologies can also reduce teacher workload by making planning and resources available over the internet or providing the same in electronic form. Results from the present research show that this may not be realized if teachers lack skills in ICT use, resources are scarce and inefficient and a negative attitude.

Although teachers appear to acknowledge the value of ICT in instruction difficulties continue to be experienced during the process of adopting these technologies. They sighted challenges which according to their research need to be identified and understood so that tangible solutions can be found. Balanklat et al (2006) argued that lack of confidence and experience with technology influence teachers' motivation to use ICT in classroom instruction. Higgins and Mosley (2010) are of the view that teachers' attitude, beliefs, skills and practice affect the way they choose to use ICT and how effective they are at using them. This view is brought out as a challenge in the present study.

The need for thorough pre-service training and continued in-service is important since there is demand for even greater competence and support for innovative pedagogy. As newer technologies come on board practising teachers should be in-serviced frequently so that their skills are in tandem with these newer innovation. Resistance to change and integration of ICT in instruction is a clear indication that something is wrong. According to Earle (2002) change from the present level to a desired level of performance is facilitated by forces such as availability, creativity, easy access which is not the case in some schools. Teachers sighted scarcity of resources as a challenge. In addition some teachers resist change due to lack of necessary education on the importance of such to their professional practices.

V. CONCLUSION

Since ICTs are important in the instructional process, efforts should be made to ensure teachers utilize them. Knowledge and skills on practical ICT use should be given during pre-service and in-service training to make teachers

competent in ICT use. The government, donors and well-wishers should allocate more funds for ICT integration and practicing teachers assessed on ICT use by Quality Assurance Officers from the Ministry of Education. This study recommends an overhaul of the current education system to adopt a student and teacher friendly curriculum so that teachers have enough time to experiment with newer technologies. The MOE, KICD should mount regular workshops and seminars for teachers to improve their ICT skills.

This study specifically surveyed challenges facing teachers in ICT use in instruction. There could be other challenges like availability of ICT resources, ICT use in different education institutions across the country, system challenges which if researched would give a clear picture of ICT adoption in schools in Kenya.

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