Influence of Teacher Pedagogical Skills in Integration of ICT Into Teaching

Geace Oyugi[1], Prof EdwardTanui[2], Dr AlexandaRono[3]

Maasai Mara Universitys
Maasai Mara university
Maasai Mara university
Corresponding Author: Geace Oyugi

Abstract: Over the last two decades, the rapid growth of ICT has become one of the essential areas for education. This is due to the capability of ICT in providing a dynamic and proactive learning and conducive school environment. In line with the current digital era, learners are required to integrate ICT in their daily learning and replace their traditional methods with modern tools and facilities. Kenya has made remarkable progress putting in place an ICT policy framework and implementation strategy, complete with measurable outcomes and time frames. The process has had the benefit of sound advice from officials and stakeholders and, perhaps more importantly, strong leadership from the office of The Ministry of Education. However, universal intergration of ICT has been a challenge to most of the countries, Kenya included as a result of lack of resources, ICT infrastructure, and even skilled teachers- particularly in public primary schools in Nairobi. This paper focuses on the effect of teacher pedagogical skills on the integration of ICT into teaching. More specifically, in identifying the level of acquisition of computer skills among primary school teachers in the integration of ICT process. The teachers pedagogical skills as applied in the integration of ICT is a very vital element in class. Thus we see that technology not only benefits the school students but also eases the office work. It is a more effective way of storage and distribution of information. The realization of the importance of technology in schools and its successful implementation is a necessity.

This paper synthesis the research literature on teacher's pedagogical skills, it presents the background and justification for approaches that could be applied in integration of ICT into teaching which could motivate and influence teacher's attitude towards acquiring higher pedagogical skills.

Key words: Education, technology, information, performance.

I. INTRODUCTION

Research findings over the past 20 years provided some evidence as to the positive effects of the use of information and communications technology (ICT) on pupils' learning. In spite of such projects, the effects of numerous training programmes and an investment by schools in ICT resources, there has been a disappointingly slow uptake in schools (Cox et al, 1999; Passey &Samways, 2010). This study examines the factors involved in the integration of

ICT in schools particularly at primary level. It is based on an extensive review of the literature associated with the title of the study.

Information Communication Technology (ICT) is perceived as a catalyst for change in teaching styles, learning approaches and in access to information (Watson, 2010). It refers to technologies that provide access to information through electronics. Use of ICT has changed conventional ways of learning and proposes the need to rethink education in terms of a more current context Watson 2010. ICT can be used to find, develop, analyze and present information in a classroom situation with set pedagogical skills, competence, and availability of resources, as well as to model situations and solve problems. Crown (2010) ICT enables rapid access to ideas and experiences from a wide range of people, communities, and cultures allowing students to collaborate and exchange information on a wide scale. Due to this, the government of Kenya has put a lot of effort in integrating ICT into the education system, However most public schools still face a lot of challenges in implementation of ICT in class**.**

The teachers skills in ICT is wanting and is essential in the integration of the same into teaching and was seen as one of the factors that influence the integration of ICT into teaching negatively. The teachers identified user characteristics, content characteristics, technological considerations, and organizational capacity as factors influencing ICT adoption and integration into teaching. The technological, individual,

---

organizational, and institutional factors also affect the integration of ICT into teaching The study carried out in Kenya established that 91% of the respondents had no access to computers and internet in their staffrooms, and were using text books for teaching 9% of the respondents had ICT in schools and were integrating it into teaching. 79% had not accessed computers and internet in cybers, 21% had accessed the ICT in the cybers, this shows that there is Inadquate ICT equipments In schools for the intagration of ICT into teaching and hence need for supply of the same.to enhance integration of ICT. The sudy further revealed lack of training materials in schools which make it very difficult for teachers to integrate ICT into teaching. Majority of teachers lacked pedagogical skills It was further noted that, for any school to implement ICT effectively, there is need for adquate training in application of equipments without which, it is practically impossible to integrate ICT in schools. .

As a result of this, most of the teachers are using traditional methods in teaching hence Denice learners chance of being exposed to ICT Facilities. A few teachers frequently use ICT in the staffroom for their work rather than using it in their classroom for teaching and learning. Results show that teachers should always be ready and well-equipped in terms of ICT competencies and positive attitude to provide ICT-based learning opportunities for pupils to improve their learning quality. Future studies need to consider other aspects of ICT integration especially on the management point of view such as strategic planning and policy making

II. FINDINGS OF THE STUDY

From the findings, teachers demonstrated deficiency in understanding of ICT operations and concepts as shown by a mean of 3.5 and a standard deviation of 1.04; teachers demonstrated lack of interest in continual growth of technology knowledge so as to stay abreast of current and emerging technologies as shown by a mean of 2.9 and a standard deviation of 0.94; teachers also lacked design learning strategies that use ICT to support the diverse needs of learners as indicated by a mean of 3.5 and a standard deviation of 1.04; teachers failed to apply current research on teaching and learning with ICT when planning learning environment as shown by a mean of 3.9 and a standard deviation of 1.09; teachers could not identify and locate technology resources suitable for meeting learning objectives as shown by a mean of 3.2 and a standard deviation of 1.01; teachers had not planned student learning in a technology enhanced context as shown by a mean of 3.3 and a standard deviation of 1.21; there was no management and care of ICT resource in respondent's institutions as shown by a mean of 4.2 and a standard deviation of 0.80; teachers did not use a technology resource to engage in ongoing professional development and lifelong learning as shown by a mean of 3.9 and a standard deviation of 0.86; teachers did not use technology to collaborate with peer and stakeholders as shown by a mean of 3.5 and a standard deviation of 1.08

Teachers did not reflect on professional practice to make informed decisions regarding use of technology for teaching /learning as shown by a mean of 4.1 and a standard deviation of 0.83; teachers did not identify and use technology resource that affirm diversity as shown by a mean of 3.5 and a standard deviation of 1.08.which reflects low level of ICT integration, hence knowledge of teachers could be influencing ICT integration in primary schools

III. CONCLUTION

The main question that this study endeavored to seek for an answer was Influence of teacher pedagogical skills on the integration of information communication technologies in public primary schools in Nairobi Kenya. Based on the findings of the study, the following conclusions were made: A large number of teachers did not have access to computers to aid the teaching process and this consequently imply that teachers did not have access to the internet, which means that integration is influenced largely by inaccessibility of requisite ICT infrastructure leading to pupils unable to acquire or learn ICT skills. Given that curriculum delivery was mostly done in classrooms one would be justified to say that computer related technologies were to a large extent not aiding curriculum delivery in the primary schools as 80% of the schoools were not using computers to aid the teaching hence limited knowledge on the use of pedagogical skills and therefore kids lacked that exposure on integration of ICT. The study concludes that ICT knowledge affected the application of pedagogical skills into teaching and resources were lacking to aid the integration of ICT into teaching and that teachers ICT skills influenced integration of ICT into teaching leading to failure of kids to acquire ICT skills.;

Finally, It was observed that , there is limited applications of ICT in teaching; and no increase in instructional materials in the internet; for the ICT to improve the presentation of work in classrooms. It was found that Teachers hardly use multimedia technology in teaching; hence most learners were unable to handle ICT facilities. There was need for; that provision of professional support through the internet (online learning); and that there was no improvement in productivity due to lack of ICT integration

.

REFERENCES

[1]. Siemens, G. (2004). A learning theory for the digital age. Retrieved from http/www. Society
[2]. Steffe, L. P., & Gale, J. (1995). Constructivism in Education. Hillsdale, NJ: Lawrence
[3]. Summary Report. pp. 1–16. BESA
[4]. Tay, L.Y, Lim, S. K; Lim C.P and Ling Koh, J.H: (2012). Pedagogical approaches for
[5]. Tay, L.Y. (2011): Integrating the technological Dimension into teaching and Learning Teacher Education in Ireland Over the Next Decade, Dublin, October. Teacher Education, teachers and technology. Paper Presented to the British Educational Research
[6]. Teaching and Learning in East African Countries. International Journal for e-Teaching and Learning in East African Countries. International Journal for e-learning Security (JeLS), Volume 2, Issues 3/4, September/December 2012.
[7]. Technologies in Asia and the Pacific." technology innovations. Educational Technology, technology into their classrooms during student teaching: A Singapore study, Journal of technology. In Proceedings of the mid-south instructional technology conference.