Quest Journals
Journal of Research in Humanities and Social Science
Volume 4 ~ Issue 11 (2016) pp: 150-156
ISSN(Online) : 2321-9467
www.questjournals.org

Research Paper

The Status of Integration of Selected Educational Technologies in Social Studies Instruction in Public Primary Teacher Training Colleges in Kenya

*Kimwarey C. Margaret[1], Too J.K [2] Mwaka-Kyalo M[2].
[1]*Moi University: School Of Education; Department Of Curriculum Instruction And Media Eldoret, Kenya*
[2]*The Commission Of Higher Education Red Hill Road, Off Limuru Road, Gigiri: Nairobi, Kenya*

Received; 17 November 2016 Accepted; 02 December 2016;

ABSTRACT: *The purpose of this study was to investigate the status of integration of educational technology in Social Studies instruction in Public Primary Teacher Training Colleges in Kenya. The study adopted the Trajectory Model and the philosophical stance was eclectic pragmatic worldview, a mixed method strategy where both quantitative and qualitative approaches are used to test different methods of inquiry. The research design was cross sectional survey design which embraced a descriptive qualitative survey. Target population comprised of six colleges, sixty three (63) Social Studies tutors and (17,568) seventeen thousand five hundred sixty eight trainees. Purposive and stratified sampling were used to select six heads of departments and twelve tutors teaching Social Studies while simple random sampling was used to select three hundred and sixty trainees. Data was collected using structured and unstructured questionnaires, interview and observation schedules and analyzed using descriptive statistics where frequencies and percentages were calculated. The findings from the study showed to a large extent tutors integrated textbooks and chalkboard; radio, films, video, computers and internet minimally integrated and a strong positive relationship noted between photographs and topographical maps.*

Keywords: *educational technology, integration, instruction, status, and social studies*

I. INTRODUCTION

The past decade has seen myriad advances and growth in the use of technology and have had pervasive impact both on society and daily lives (Yuen, Law & Wong, 2003). These great advances have become the principal drivers of social and economic change worldwide offering potentials to restructureorganizations, promote collaboration and participation, foster creativity and enhance social integration among people of different capabilities and from diverse backgrounds (Kozma, 2005a). As a result of this, various sectors and institutions have rolled out initiatives to realize the usage of technology in daily practice. Among other, is the education sector where initiatives and policies have been crafted both at global and national levels so as cope with technology demand, its usage to support and spur economic growth (UNESCO, 2004). In response towards this initiative, Millennium Development Goals (MDG)was crafted andadopted by the United Nations as key development target for the 21st century which aimed at poverty reduction through provision of quality education by2015.

With this in place, educational institutions began to integrate technology use in education experiences although the rate of adoption varied from country to country. For example, a survey (1999) in USA in public schools in'Teachers' tools for the 21st century'reported availability of computers for teachers (99%) and classrooms(84%), (US Department of Education, 2000). However, a survey in other countries was different. In Cyprus (1997) the International Institute for Education Planning showed disparity in relation to availability and usage of technologywhich called for reforms in order to raise quality of education (Vrasidas& Marina 2001); Eastern African countries sawthe development of ICT policies and strategies (Hennessy, Onguko, Harrison, Ang'ondi, Namalefe, Naseem and Wamakote, 2010) while inKenya, the Ministry of Education, Science and Technology (MOEST) crafted a policy framework in Education Training and Research (Sessional Paper No. 5. 2004) with a vision '*quality education, training and development'.* Following the development of a policy framework, the government set aside 6.3 billion (equipment), 7.8 billion (training) and revised the curriculum

through KIE (MOEST, 2006). To enhance access, equity and quality in primary and secondary education, capacity building program for education managers; construction/renovation of physical facilities/equipment in public learning institutions and raining for improved access and mainstreaming in teaching and learning process was rolled out (Ibid, 2006). Having realized differences and gaps in technology adoption and integration in all learning experiences and with varied approaches used by various countries to meet global demand, this study purposed to determine the status of integration of selected educational technologies in Social Studies instruction in PPTTCs in Kenya.To address this concern the major question that guided the study was;what selected educational technologies are available for integration by tutors in Social Studies instruction?

1.2 Hypothesis Of Research

$H_0$1 There is no relationship between availability and integration of selected educational technology in Social Studies instruction

1.3 Significance Of The Study

As technology advancements continue to evolve, the education sector has sought not to be left behind as regards integration of ICT in the classroom. Though a costly investment the need to determine the status of integration cannot be wished away. Research done will inform policy makers, administrators, tutors, parents and researchers in colleges and university on the status of ICT integration Social Studies instructions in PPTTCs. This in turn is hoped to shed light on the gaps either for, improvement and upgrading of infrastructure that will go a long way to ensure proper use of ICT in instruction.

This research was informed by studies done on teacher education programs(Otunga &Namunga, 2012) to preparation, training and opportunities for quality teaching;Otiende et al. (1992) teacher training for quality education (Shiundu&Omulando, 1992), teacher role on implementation, organizing and management of learning experiences and environments; (Kafu, 2003) school teachers for the established system of education; (Lucas, 1972) so as to prepare teachers as mentors of any society.

II. REVIEW OF RELATED LITERATURE

2.1 Essentials Of Social Studies Teacher Education

Teacher Education has been an important component of education since time immemorial. In the past it was used to transmit indigenous knowledge and skills from one generation to another byolder members of the society informally. But with the advent of the western education, the content and means of transmitting the knowledge as continuously evolved. Similarly, the continued and varied environmental needs have continued to demand for change and for this reasonperiodic review of the curriculum has been inevitable. At individual level, Otunga &Namunga (2012) recognizethe role played by teachers in virtuallytraining and producing persons who eventually fit in in every sector of the economy.Loughran (2006) noted the role of teacher education being to prepare pre-serviceand in-service teachers with knowledge and skills for teaching.Shiundu&Omulando(1992) on educational programs aver that successful implementation of a program is pegged on the organization and management of learning experiences and the environments.

At subject level, a general development of a curriculum is important andin Kenya at the PPTTC level it comprises of ten subject, among them is Social Studies (MOEST, PTE Syllabus, Vol.2:2001). The inclusion of each subject is expected to provide learners with background and content with agrees with the aims of education. Social studies curriculum draws its content from a number of disciplines such as anthropology, archaeology, economics, geography, history among other (National Council for the Social Studies, 1994, p. vii). The inclusion of subject is meant to bring an understanding on human origin and his relation with the social and physical environment from the past to the present. It is believed that the exposureto Social Studies enable a trainee acquire knowledge, social competence, positive intellectual attitude, avalues such as social-mindedness, truthfulness, tolerance among other,higher order thinking skills providing a foundation for future specialization (Kochar, 1990). Even with the benefits accrued from teaching and learning Social Studies, the mode teaching, the changing demands of the todays' workforce, the need to adopt and integrate appropriate facilities such asInformation technologies (IT) at classroom level cannot be wished away.

Research reports on thepositive impact of adoption and utilization of technology during instruction during teaching and learning (Manzo, 2001; Almekhlafi, 2006a, 2006b), accrued development of problem-solving and higher-order thinking skills (Dede, 1990; Fontana et., al, 1993; Harris, 1996; Hopson, Simms &Knezek, 2001; 2002) have been noted. It is for this reason that the attention of governments, academia, corporations, andthe public is critical in leveraging productivity and competitiveness at all levels of society in facilitating the development of high quality information infrastructure. To enhance this, the government singled out financing the PPTTCs, provided adequate staff, build capacity and created relevant instructional materials

(MOEST, ICT in Education Options Paper, 2005); Kenya Institute of Education (KIE) developedthe ICT curriculum, distribute relevant the educational material and continued development of appropriate e-content.

2.2. Technology In Social Studies Teacher Preparation

OECD (2002)aver that teachers need to be equipped to effectively use ICT in their teaching activities. In relation to this, ILO/UNESCO (1991) recommended the need for teacher education institutions to consider availing adequate and appropriate teacher and learning equipment's such as television, radio, computer assisted teaching materials among others that would contribute to the development and improvement of method of delivery in modern education. This is because the present and future of use of modern technological devices in teaching and learning process rests in the hands of educators.Johnson, Maddux &Liu (2000) aver that teacher preparation programs need to help pre-service teachers to understand how technology can be used to teach content in rich and meaningful way.Mwaka (2008) revealed an increased demand for quality teaching and teacher educators and the resultant need to leverage modern ICTs in training of teachers at all levels in relation to global demand.

III. METHODOLOGY AND DESIGN

The study adopted an eclectic worldview stance derived from the work of Pierce, et,al., (Cherryholmes, 1992) a mixed method strategy where both quantitative and qualitative approaches are used to test different methods of inquiry. The study embraced cross-sectional survey design.

3.1 Population And Sample

The population of the study comprised of twenty one Heads of Departments, sixty three Social Studies tutors and seventeen thousand five hundred and six eight trainees in PPTTCs in Kenya. The study used purposive and stratified sampling method to select the entire population heads of departments and tutors and to select the trainees a table for determining sample size was adopted from the Krejcie and Morgan (1970)from which three hundred and sixty was selected by simple random sampling.

3.2 Research Instruments

The data for the study was obtained through questionnaires, interview, observation schedules and document analysis. Quantitative and qualitative statistics were analyzed descriptively by means of cross-tabulation, frequency tables and reported in themes in relation to the data provided.

IV. RESULTS AND DISCUSSION

The status of integration of educational technology in social studies instruction was determined by data collected from the respondents which comprised of:

4.1 trainees:

The number of trainees selectedwere male; 187(51.9%) and female 173(48.1%). On their intake 232(64.4%) were first years while 128(35.6%) were second years with an age range 283 (78.6%) 20-25years, 67(18.6%) between 25-30 years while 10 (2.7%) above 30years.

Table 1.1 a Trainees Bio-data

Variables	Response	F	Percentage(%)	Total
Gender	Male	187	51.9	51.9
	Female	173	48.1	48.1
	Total	360	100	100
Age	20-25 years	283	78.6	78.6
	25-30 years	67	18.6	18.6
	Above 30 years	10	2.7	2.7
	Total	360	100	100
Year of study	1st year	232	64.4	64.4
	2nd year	128	35.6	35.6
	Total	360	100	100

4.2. tutors and hods

The 12 tutors: male 7(58.3%), female 5(41.7%); age range; 25-35 (n=1; 0.8%), 35-45 years, (n=5; 41.7%), 45-50years (n=5; 41.7%), above 50 years (n=1; 0.8%); professional qualification, 3(25%) post-graduate degrees while 9 (75%) graduates; teaching experience 4 (33%) 10-15 years, 7(58.3%) 15-20 years while 1(.8%) more than 20 years; in-service training during teaching tenure, 9(75%) had, 3(25%) had not. The HODs 2(33.3%) female, 4(66.7%) male; age range; 35-45 (n=1; 16.7 %), 45-50 years (n=4; 66.7%) and above 50 years (n=1; 16.6%); professional qualification (n=4; 66.7 %) and (n=2; 33.3%) and teaching experience 2(33.3%) 16-10 years' experience while 4(66.7%) over 20 years' experience.

Table 1.1 b Head of Department & Tutors Bio-data

Variables	Response	Tutors F	(%)	Hods F	(%)
Gender	Male	7	58.3	4	66.7
	Female	5	41.7	2	33.3
	Total	12	100	6	100
Age	25-35yrs	1	0.8	1	16.7
	35-45yrs	5	41.7	4	66.7
	45-50yrs	5	41.7	1	16.6
	Above 50yrs	1	0.8	1	16.6
	Total	12	100	6	100
Qualification	Post-graduate	3	25	4	66.7
	Graduates	9	75	2	33.3
	Total	12	100	6	100
Teaching experience	10-15yrs	4	33	-	-
	15-20yrs	7	58.3	2	33.3
	20yrs	1	0.8	4	66.7
	Total	12	100	6	100
In- service	No	9	75	2	33.3
	Yes	3	25	4	66.7
	Total	12	100	6	100

Source: Field data, 2015;Note: the figures in parentheses are percentage frequencies n=12 and 6

4.3 Availability And Integration Of Educational Technology

The findings were presented thematically with regards to available technologies presented as print and non-print and considered how conventional and emerging technologies were integrated in Social Studies instruction.

Table 1.2 a: Respondents Correlates of Conventional Educational Technologies under Study

Variables	Integration					
	Trainees		Tutors		HODS	
Variables	No	Yes	No	Yes	No	Yes
Textbooks						
avail/used	31(8.6)	133(36.9)	5(41.7)	7(58.3)	2(33.3)	4(66.7)
Avail/not	86(23.8)	47(13.1)	-	-	-	-
Not avail	1(0.3)	7(1.9)	-	-	-	-
Undecided	18(5)	37(10.4)	-	-	-	-
Chalkboard						
Avail/ used	85(23.6)	136(37.8)	-	-	2(33.3)	4(66.7)
Avail/not used	34(9.4)	52/914.5)	5(41.7)	7(58.3)	-	-
Not avail	-	-	-		-	-
Undecided	17(4.7)	36(10)	-		-	
Radio						
Avail/used	-	17(4.7)	-	1(.83)	-	-
Avail/not used	9(2.5)	103(28.9)	2(16.6)	1(.83)	1(16.7)	1(16.7)
Not available	73(20.4)	10428.6)	3(25)	4(41.7)	1(16.7)	3(50)
Undecided	44(12.2)	10(2.7)	-	-	-	-
Television						
Avail/used	12(3.3)	10(2.7)	1(.83)	-	-	-
Avail/not used	21(5.8)	24(6.7)	3(25)	-	2(33.3)	2(33.3)
Not avail	68(18.9)	106(29.5)	1(.83)	-	2(33.3)	-
Undecided	35(9.8)	84(23.3)	-	7(58.7)	-	-
Film						
Not avail	90(25)	129(35.8)	6(50)	6(50)	3(50)	3(50)
Undecided	52(14.4)	89(24.8)	-	-	-	-

Audio tape						
Avail/used	3(.8)	5(1.4)	-	-	-	-
Avail/not used	7(1.9)	9(2.5)	2(16.7)	4(33.3)	-	1(.83)
Not avail	**71(19.7**)	**180(50**)	**3(25)**	**3(25)**	**5(41.5)**	**6(50**
Undecided	55(15.4)	30(8.3)	-	-	-	**-)**
Photographs						
Avail/used	17(4.7)	23(6.3)	1(.83)	2(16.7)	1(16.7)	2(33.3)
Avail/not used	36(10)	70(19.4)	-	-	-	-
Not avail	**46(12.8)**	**65(18.1)**	**4(33.3)**	**5(41.7)**	**2(33.3**)	**1(16.7)**
Undecided		**27(**7.5)	-	-		
Topographical		76(21.2)				
Avail/used	**8(2.2)**	**23(6.3**)	-	**3(25)**	**2(33.3)**	**4(66.7**)
Avail/not used	82(22.8)	70(19.5)	2(16.6)	-	-	
Not avail	6(1.7)	55(15.2)	-	7(58.3)	-	
Undecided	40(11.2)	76(21.1)				

Source: Field data; Note: the figures parentheses are percentage frequencies n=varies

Table 1.2b: Correlates of Newer Educational Technologies

Predictors	**Integration**		**Tutors**		**HODs**	
	No	Yes	No	Yes	No	Yes
Overhead/prj.						
Avail/used	11(3.1)	23(6.4)	1(.83)	1(.83)	2(33.3)	2(33.3)
Avail/not used	15(4.2)	36(10)	1(.83)	4(33.3)	1(16.7)	-
Not avail	64(17.8)	97(26.9)	5(41.7)	-	1(16.7)	-
Undecided	40(11.1)	74(20.6)	-	-		
Computers						
Avail/used	10(2.7)	11(3.1)	1(.83)	1(.83)	1(16.7)	2(33.3)
Avail/not used	46(12.8)	78(21.7)	1(.83)	5(41.7)	1(16.7)	-
Not avail	55(15.3)	78(21.7)	4(33.3)	-	-	2(33.3)
Undecided	25(6.9)	57(15.8)	-		-	-
Video						
Avail/used	0	1(.83)	-	1(.83)	-	1(16.7)
Avail/not used	22(6.1)	24(6.7)	1(.83)	2(16.7)	-	1(16.7)
Not avail	69(19.2)	109(30.3)	4(33.3)	4(33.3)	1(16.7)	2(33.3)
Undecided	45(12.5)		-	-	-	-
Digital camera		90(25)				
Avail/used	1(.83)	5(1.4)	-	1(.83)	-	1(16.7)
Avail/not used	52(14.4)	96(26.7)	1(.83)	2(16.7)	1(16.7)	3(50)
Not avail	62(17.2)	99(27.5)	4(33.3)	4(33.3)	1 (16.7)	-
Undecided	16(4.4)	29(8.2)	-	-	-	-
Internet						
Avail/used	1(.83)	12(3.3)	-	2(16.7)	1(16.7)	1(16.7)
Avail/not	72(20)	43(11.7)	3(25)	1(.83)	-	1(16.7)
Not avail	62(17.6)	135(37.3)	2(16.6)	4(33.3)	1(16.7)	2(33.3)
Undecided	16(4.4)	19(5.3)	-	-	-	-
e-curriculum						
not avail	102(28.3)	184(51.1)	5(41.7)	7(58.3)	2(33.3)	4(66.7)
undecided	34(9.4)	40(11.2)	-	-	-	-

Source: Field data; Note: the figures parentheses are percentage frequencies n=varies

The findings showed variation on availability and integration of technology in social studies instruction. The tutors 4(33.3%) and 5(41.7%) reported not available while HODs 2(3.3%) reported available/used although some did/did not support integration and 1(16.7%) reported not available. On computers, trainees reports showed; 78(21.7%) and 46(12.8%) reported not available while 78(21.8%) and 55(15.3%) available/not used. From the tutors, similar number 5(41.7%) and 4(33.3%) reported not available did and did not support and only 1(0.83%) number reported available/not used. The HODs, 2(33.3%) and 1(16.7%) reported available/used, did and did not support integration with only 1(16.7%) reported available not used and 2(33.3%) not available. On video, internet and e-curriculum figures showed minimal to no usage, some supported while othersdid not support integration.

To determine pertinent issues as to why respondents did or did not support integration of particular type of technologies an in-depth interview was carried out. Mr. James reported that 'though there was pressure and need to adopt and integrate new technologies, tutors lacked necessary technical and pedagogical skills to handle and be able to integrate the technologies during instruction effectively'. Mrs. Wangogo said ' my

academic background has little knowledge on geography and technological know-how and so I find teaching using whichever technology a waste of time; my explanation directly on the chalkboard saves a lot of time'. These findings shows minimal use of the emerging technology during insruction.

4.3 Relationship Between Availability And Integration

To determine the relationship between availability and integration of ET during Social Studies instruction an hypothesis was drawn to test the relationship.

$H_0$1: **There is no relationship between availability and integration of ET during Social Studies instruction**

To test if there was any significant relationship univariate analysis by use of chi-square was run.

Table 1.3: Univariate Analysis of Variables under Study

Variables	Trainees			Tutors		
	CI	X^2	P	CI	X^2	P-value
Television	**95%**	**0.813**	**0.050**	95%	0.360	0.186
Textbooks	95%	0.107	0.253	95%	-	-
Chalkboard	95%	0.890	0.641	95%	-	-
Radio	95%	0.075	0.253	95%	1.029	0.462
Film	95%	0.937	0.626	95%	-	-
Audio-tapes	95%	0.395	0.495	95%	0.343	0.558
Photographs	95%	0.430	0.699	95%	1.029	0.310
Topog/maps	95%	0.293	0.961	95%	-	-
O/projector	95%	0.611	0.657	95%	0.543	0.462
Computers	95%	0.467	0.325	95%	0.543	0.462
Video	95%	0.791	0.285	95%	0.029	0.598
Digital camera	95%	0.026	0.567	95%	0.147	0.929
Internet	95%	0.130	0.513	95%	3.429	0.180
e-curriculum	95%	0.598	0.450	95%	-	-

Source: Field data: 2015

The findings from the trainees showed that a significant relationship was found on television (95% CI; x^2 =.813; P=.050). Television was likely to influence integration of ET during Social Studies instruction which could be attributed to the features it provided On all other variables and integration from tutors and HODs; No significant relationship was found as all appear to be independent. Variables such as textbook, chalkboard, films, topographical maps and e-curriculum had one variable were constant. Consequently the null hypothesis was accepted.

V. CONCLUSION

The study concluded that technology integration is/should be a matter of concern to all educators and for this reason varied types of technologies should be availed, upgraded, expanded, be made accessible and finances to be provided at regular intervals for servicing. The study established that although the government has set aside funds for purchase of equipment's, renovated/constructed physical facilities, trained managers, training and capacity building of subject teachers had not been taken off as expected even after decade of implementation. The study recommends that the government through MOE provide further adequate funds to procure more and varied technologies, KICD to revise the curriculum to accommodate technology use, make technology use examinable at teaching practice and examination level, provide periodized in-service, mainstream technology integration at pre-service training and at subject level and regular evaluation of implementation be made.

ACKNOWLEDGEMENTS

I thank the Almighty God for giving me the strength, courage, and wisdom till the completion this task.My sincere gratitude and appreciation is to my family the Kimorna's and Kimwarey's; my supervisors; Prof. Jackson K. Tooand Prof. Marcela, Mwaka-Kyalo,Prof. Baraza and Prof. Kipsat, former DeansSchool of Education (SOE) and School of Business respectively, Moi University, Dr. Bomett, Mr. Namasaka, Mr. Ogolla J. and classmates and respondents who gave untimely support, encouragement, provided information, suggestions and guidance towards this study.

REFERENCES

[1]. Almekhlafi, A.G (2006a,). The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school student's achievement and attitude. Journal of Interactive Learning Research, 17(2), 121-142.

[2]. Almekhlafi, A.G (2006b) Effectiveness of interactive multimedia environment on language acquisition skills of 6th grade students in the United Arab Emirates. International Journal of Instructional Media, 33 (4), 427, 24

[3]. Dede, C. (1990). Imaging technology's role in restructuring for learning. In M. (Shiengold K.&Tucker, Restructuring for Learning with technology (pp. pp.49-72). New York: Center for Technology in Education, Bank street college of Education

[4]. Fontana, L. (1997). Online learning Opportunities for the social studies. In M. P. (Ed), Interactive technology on the social studies: Emerging issues and application (pp. 1-25). Albany NY: State University of New York Press.
[5]. Harris, J. (1996). information is forever information, knowledge is knower: Global connectivity IN k-12 classrooms. Computers in schools , 12 (1-2), 11-22.
[6]. Hennessy, S., Onguko, Harrison, Ang'ondi, Namalefe, Naseem and Wamakote, (2010) Developing use of ICT to enhance teaching and learning in East African schools. cambridge and Dar-es-salaam: unpublished (Univesrity of Cambrige and Aga Khan University institute for Educational Development-Eastern Africa).
[7]. Hopson, M. R. (2001). Using technology -enriched environment to improve higher order thinking skills. Journal of Research on Technology in Education , 34(2), 109-119
[8]. Johnson, D. L., Maddux, C. D., & Liu, L. (2000). Integration of technology into the classroom: case studies. Binghamton, NY: the Haworth Press
[9]. Kafu, P.A (2003). Teacher Education: Its implications to Quality of Teachers in Kenya. unplished-Moi University.
[10]. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30, 607-610.
[11]. Kochar, S. (1990). Teaching of History. New Delhi: Sterling Publishing co.
[12]. Kozma, K. R. (2005). National policies that connect ICT based education reforms to economic & social development. Human technology , Vol. no.2 PP. 117-156.
[13]. Loughran, J. (2006).Developing pedagogy of teacher Education; Understanding Teaching and Learning about Teaching. New York: Routledge
[14]. Lucas, E. (1972). Comparative Education: The perspective of Teacher Education in East Africa. Kampala: Makererean: Makerere University College.
[15]. Manzo, K.K (2001) Academic record. Education Week, 20(35), 22-35. Washington. NCES (2000). Internet access in U. S. public schools and classrooms: 1994–99. Washington, DC: NCES 2000–086.
[16]. MOEST. (2006). National ICT Strategy for Education and Training. Nairobi: Government printers
[17]. OECD and UNESCO(2001). Teachers for Tomorrow's Schools: Analysis of the World Education Indicators, Paris
[18]. Otunga, R. & N. (2012) Teacher Education as a Driver for Sustainable Development in Kenya: International Journal of Humanities and Social Science Vol. 2 No. 5; March 2012
[19]. Shiundu S.J and Omulando J.S (1992), Curriculum Theory and practice in Kenya. Nairobi: Oxford University Press
[20]. UNESCO. (2004). Developing & using Indicators for ICT use in Education. Paris: UNESCO
[21]. UNESCO, 2008) UNESCO. (2008, Sept 28th). ICT Competency Standards for Teachers. Retrieved Feb. 10th, 2014, from Implementation Guidelines: http:/www.unesco.org/en/competency-standards-teachers
[22]. Vrasidas, C. &. (2001). Integrating Technology in Teaching Teacher Education: Imlpication for Policy and Curriculum development. Education Media International , 128-131.