



# THE IMPACT OF EDUCATIONAL TECHNOLOGY ON STUDENT'S ACADEMIC ACHIEVEMENTS IN BENADIR REGION, MOGADISHU- SOMALIA

UMULKHAYR MOHAMED ABDI

<https://orcid.org/>

0000-0002-4445-4114

Umulkhay772@gmail.com

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## ABSTRACT

*The purpose of this research study is to determine the impact of educational technology on student's academic achievement in the Benadir region, Mogadishu-Somalia. and used three objectives, they are To determine the relationship between Computers and students, To find out the relationship between projectors on student achievement, and To examine the relationship between the internet and student's academic achievement, and the study used descriptive research design, the target population of this study was 135 while the sample size of this study was 101 respondents including Lectures, Teachers and students in Benadir region, Mogadishu, Somalia In the study was used probability procedure Then systematic random sampling, the main instrument for collecting data was questionnaires. The questionnaire was consisting of structured with closed End questions and the Data was analysed by multiple regression analysis. And used Statistical Package for social science SPSS version 20.0 and the Result revealed that the internet in use of students' academic achievements has a significant positive impact on academic achievements of students, however, computers and projectors on students' academic achievements don't have any significant impact on academic performance of students. Educational Technology actively encourages Student Achievement in education sectors, Therefore the study recommends educational sectors should give attention to*

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*educational technology and capacity building in the Schools and universities to enhance student achievement and obtain increased and quality teaching.*

**Key Words:** *Education, Technology, Students, Achievements, Secondary school.*

## INTRODUCTION

The purpose of this study is to look at the impact of academic technology on action within the Benadir region, Mogadishu-Somalia. Technology it appears is all over today within the world. As computers became additional standard, the employment of knowledge technology has become intensive in most everyone's lives. for many folks, it's exhausting to imagine lifestyle while not the influence of technological devices, be it hand-held video games, personal digital assistants, cell phones, or any range of computers. this can be very true for younger generations. In world, we've doubtless gotten to the purpose wherever the employment of technology is anticipated, by each students and their oldsters (Christensen, 1999). The role of technology in teaching and learning is quickly changing into one in all the foremost vital and wide mentioned problems in up to date education policy (Rosan and well, 1995). Most consultants within the field of education in agreement that, once fittingly used, info and Communication technology holds nice promise to reinforce teaching and learning additionally to shaping the personnel opportunities. Poole (1996) has selected that pc illiteracy is currently considered the new illiteracy. This has gingered a brand new and powerful want to produce colleges with pc facilities and qualified personal necessary to provide technologically expert and economical students in developed countries of the globe. there's little question that computers will assist the academic approach and facilitate students' learning. several studies have found positive effects related to technology-aided instruction (Fitzgerald, Burnett, 1995) and (Warner, 1996). within the additional advanced industrial nations, there has been a staggering quantity of analysis and publication associated with ICT use for academic functions throughout the past decade. Today, nearly everybody within the industrial nations gained access to ICT, and also the purchase of pcs for college use in such nations because the u. s. has been increasing at such a pace that's troublesome to stay track of what number computer machines ar currently in yankee colleges (Harber, 1987). In Global, the u. s. of America (USA) use of academic technology in colleges as a method to boost student learning has received intensive attention over the past twenty years. With the appearance of the net and

a spread of software package and hardware applications, college districts have preponderantly centered on the acquisition of hardware and electronic network infrastructure within the pursuit of academic technology goals (Anderson & Becker, 2001). Innovations over that amount have ranged from the primary introduction of single pcs to be used in school rooms to complete computer labs with restricted skill-based software package, to school-wide distributive networks of computers running prescriptive curriculum-driven software package applications, to wide space networks that includes broadband web access and streaming video (Parsad And Jones, 2005). A dramatic increase has been ascertained within the handiness of technology, because the student to pc quantitative relation (without web access) has been reduced from 125:1 in 1983 (Panel on academic Technology, 1997) to just about 4:1 by 2003, with virtually 100% of faculties having web access (Parsad & Jones, 2005). whereas access and handiness to pc technologies have considerably increased in colleges throughout the country, queries persist on the particular impact these technologies ar having within the designing and delivery of instruction further because the perceived advantages to the training method. The study delineated during this document was designed to get research-based truths associated with academic technology and its use in colleges. Such discovery served to help in understanding the impact technology has on the approach the inhabitants of faculty school rooms move with each other as they're going regarding the business of "schooling. "The impact of academic technology has been met with a lot of unbelief in recent years thanks to an absence of proof that it's been effective in up student learning and its perceived excessive value (Cuben And Rafer, 2000). Federal college technology initiatives alone, as an example, increased from \$21 million in 1995 to \$729 million in 2001 (O'Dwyer, Russell, & Bebell, 2004a). Market knowledge Retrieval (2005) accentuated this trend therein, despite frequently declining budgets, seventieth of faculty districts across the state anticipated technology defrayment to extend or stay unchanged within the 2006 twelvemonth. The intensive expenditures on technology in colleges are in the midst of claims that technology's impact on education is critical (Software & info business Association, 2000). This report, notably commissioned by the software package business and considerably questioned by critics on its intent thanks to a possible conflict of interest, additionally found positive correlations between technology moving student action, motivation, and self-concept. Critics have typically questioned such claims once created by insiders of the hardware and software package industries (Winner, 2001). Bloom (1996) declared that educators ought to use a lot of care and skepticism as they move the "information super-toll road" (p. 1). Bloom additionally

perceived comparisons to the present push for technology with alternative reforms of the past that have unsuccessful or had token impact, e.g. language labs and filmstrip viewers. Such criticisms have every now and then been therefore prevailing on catch the eye of the thought media. The the big apple Times spoken the work of William Rukeyser, organiser of Learning within the universe, a non-profit organization that usually queries the worth of technology in colleges. Rukeyser steered that it absolutely was “incumbent on educators and policy leaders to adopt a principle angle. All-time low line on academic technology is that the jury continues to be out and additional objective, arm’s length analysis is needed” (Winner, 2001).

The central has echoed these considerations a lot of recently, disputation that “federal investments in academic technology have incontestible deficient impact on tutorial achievement...the price of academic technology must be weighed aboard different efforts to enhance education” (Trotter, 2005, 3). The results of this shift in federal policy and implementation of great federal education legislation (No kid Left behind Act of 2001, 2002) has been to focus academic technology efforts off from information and technology integration and toward a lot of advanced information management systems (Trotter, 2005). more moderen initiatives in colleges have provided laptop computer or hand-held computers for each student, with some colleges permitting students to see out computers to be used reception additionally as in class. Rockman (2003) claimed that such programs have needed lecturers to considerably structure however they teach, permitting a student as a teacher’s model to develop as “many students thrive in associate surroundings wherever they need skills and information to share and to trade” (p. 26). in an exceedingly speedily dynamical world of worldwide market competition, automation, and increasing group action, basic education is critical for a private to possess the capability and capability to access and apply data. Such ability and capability should notice bearing in data and communication technology within the world village. The Economic Commission for continent has indicated that the power to access and effectively utilize data is not any longer a luxury however a necessity for development. sadly, several developing countries, particularly in continent, square measure already on the incorrect facet of the digital divide within the academic use of ICT (Fitzgerald, Burnett, and, 1995). In Region, African country for the past thirty years leaves no space for continuity. Over the years, political power in African country has been wont to entrench mediocrity, corruption in high places, misplace priority, and client culture. The direct result of those may be a battered economy and an academic system that's decaying by the day. In 1988, in an effort to stay pace with development in laptop education, African country enacted a

Policy on laptop Education. Okebukola (1997), complete that laptop isn't a part of schoolroom technology in over ninetieth of public colleges in African country. therefore the flat solid and textbooks still dominate schoolroom activities in most secondary colleges in African country. If a rustic like African country that has but a fifth of Nigeria's resources, is currently victimization data and communication technology to assist school students to become higher data users, why is African country lagging? the solution is just direction of the large resources of the country and therefore the inability of political leaders to rate Nigeria's biological process desires. there's little doubt that within the current harsh economic competition, the non-public sector in African country has embraced ICT to remain afloat. The banking sector, insurance, producing industries, and international firms within the oil sector have embraced multimedia system technology to bring innovative solutions to their current challenges. If Nigerian desires to be a serious player within the world marketplace of ideas and prepare her voters for the new surroundings of nowadays and therefore the future, the country ought to embrace ICT for the subsequent reasons: ICT as associate aid to teaching associated learning; ICT as a tool for management; ICT as associate instrument for economic development; ICT as an instrument of high technological development, and ICT as a course of study (Okebukola, 1988). The importance of ICT is sort of evident from the academic perspective. tho' the flat solid, textbooks, radio/television, and film are used for academic functions over the years, none has quite wedged the academic method because the laptop. whereas tv and film impact solely the audio-visual colleges of users, the pc is capable of activating the senses of sight, hearing, and barely of the users. ICT will offer a better interactive potential for users to develop their individual, intellectual and inventive ability. the most purpose of ICT "consists simply within the development of human mental resources, which permit individuals to each with success apply the prevailing information and turn out new knowledge" (Shavinina, 2001). The collective and rigid nature of learning and therefore the passive nature of the educational related to the utilization of radio, television, and film doesn't contribute any innovative changes to ancient ways within the education system. data and communication technologies square measure being employed within the developed world for educational functions. Today, laptops perform a number of functions in teaching and learning as several nations square measure adding computer acquisition and reading and writing acquisition as skills students required for succeeding in an exceedingly technologically developed world (Thomas, 1987). At the academic level, computers square measure utilized by pupils to be told reading, arithmetic, social studies, art, music, simulation, and health practices. In

academic multimedia system application, Shavinina (1997) declared that today's learning contents square measure domain-specific product which they dominate the globe market. in step with Shavinina (1997), domain-specific academic multimedia system is directed to information acquisition skills development within the language arts, history, physics, literature, biology, and so on. there's little doubt that ICT provides productive teaching and learning to extend people's inventive and intellectual resources, particularly in today's data society. Through the cooccurring use of audio, text, multicolored pictures, graphics, and motion, ICT offers ample and exceptional opportunities to the scholars to develop capacities for high-quality learning and to extend their ability to initiate. African country cannot afford to lag in victimization multimedia system to lift the intellectual and inventive resources of its voters. this can be significantly vital for youngsters whose adulthood was florescence in an exceedingly cyber-environment entirely completely different from that of this (Shavinina, 2001).

The most difficult side of the post-industrial era is a way to meet the demand of the knowledge society that Homo sapiens is making an attempt to make. The role of education in developing fashionable society can not be overemphasized. Society and education area unit extremely dependent. As society changes, the academic system must modification consequently. nowadays employers of labor area unit in search of graduates with the requisite data, skill, and coaching that may facilitate to resolve issues that don't nevertheless exist nowadays. In recent years thousands of university graduates found it tough to secure good-paying jobs. This has been since there are not any jobs out there as several government institutions and personal firms area unit even retrenching staff as a results of the hardship being experienced by the economy (Westera and Sloep, 2001). Though the African nation government has opened its doors to foreign investors and plenty of of them area unit coming back in, African nation graduates don't seem to be properly trained for the new positions that area unit gap up within the new firms being established. there's a high demand for extremely arch and technologically trained staff. sadly, most Somali graduates nonheritable associate degree dose of theoretical data, that doesn't match well with the strain of geographic point follow. fashionable firms want staff that area unit proactive, enterprising, accountable, and self-directed skilled. in keeping with Walton (1995), fashionable staff represent the business' human capital. African nation has to replace the standard education practices that also underpin its academic system. during a report of the planet Bank-sponsored analysis study on the state of the African nation graduate, (Dabalen and federal agency, 2014) declared that

Students WHO graduated from Universities in African nation over the past decade area unit poorly trained and unproductive on the work. The report indicated that students WHO graduated from the University of African nation as deficient within the mastery of country language and requisite technical skills. Such development needs a rethinking of the objectives education ought to pursue (Dabalen and federal agency, 2014). Theories of academic technology emerged early within the twentieth century, aboard enhancements in industrial potency, developments in audio-visual instrumentality, and growing interest in educational psychologies (Januszewski, Luppisini, 2001,2007). the appliance of science to education was viewed from a minimum of 3 totally different perspectives: some selected to consider G. Stanley Hall that programme analysis ought to occur in natural environments to raised align with children's natural behavior; some followed Dewey, modeling science as a lively method of reflective inquiry; and a few adopted a scientific approach primarily as a method for precise standards and measurements (Januszewski, 2001). James Finn, associate degree early somebody of the skilled field of ET, advocates a systems approach to educational issues European (1962) echoes Dewey's sentiment that "ends and suggests that area unit indivisible ... ends become suggests that to any ends" (p. 32). this text of indivisible ends and suggests that will be unclear. as an example (Januszewski, 2001). queries European's non-intuitive description of "automation": Finn equivocally suggests that automation is that the technology and conjointly includes technology. the concept that technology (i.e., automation) includes itself (i.e., different technology) needs contemplation through a systems approach. European describes "automation in education" not as "a manless, machine-operated production," however instead as a general "way of thinking involving patterns and self-regulation" also as containing any technologies, like "long-range planning" and "wise decision-making" (Januszewski, 2001). Finn's stress on processes and systems theory influenced the primary formal definition of the sector, that was attributed to not ET however to "Audiovisual Communications" (under the auspices of the Department of Audiovisual Instruction, DAVI). The 1963 DAVI definition reads: "Audio-visual communication is that branch of academic theory and practices involved primarily with the planning and use of messages that management the training process" (Reiser & Ely, 1997). following definition referred expressly to ET because the AECT came to exchange DAVI in 1970. Here is associate degree excerpt of the 1972 AECT definition of ET: (Reiser & Ely, 1997). the complete definition includes many themes: human-centred instruction (as against control), a continued stress on a systems approach, and a larger stress on physical resources as compared to processes-as-

resources “Educational technology could be a field concerned within the facilitation of human learning through the systematic identification, development, organization, and utilization of a full vary of learning resources and thru the management of those processes (Januszewski, 2001). However, in our greatest awareness, the impact of academic technology on student action is unclear Therefore; this study can investigate the impact of academic technology on student educational action in Benadir Region, Mogadishu-Somalia. The potential of academic technology to reform education is of primary interest to educators, native education agencies, and legislators throughout the state. Billions of greenbacks area unit allotted for element, software, and teacher coaching annually, nevertheless critics have continued to question whether or not this infusion of capital has had any real impact on teaching and learning. whereas analysis into the impact of academic technology on student action exists, the matter remains that there's not enough noted concerning the impact of such technology on the training surroundings of primary school. With the dynamic digital society of the twenty first century, today's educators should still analysis the impact of technology integration on student action (Gibson, 2011). Therefore, the study can take up the task of filling the present gap through associate degree empirical investigation of the impact of academic technology on student educational action within the Benadir Region, Mogadishu-Somalia.

### **THE OBJECTIVE OF THE STUDY**

1. To assess the relationship between educational technology and projectors on student academic achievement in Benadir Region, Mogadishu-Somalia.
2. To determine the relationship between educational technology and the internet on students' academic achievement in Benadir Region, Mogadishu-Somalia.
3. To investigate the relationship between educational technology and Computers on students' academic achievement in Benadir Region, Mogadishu-Somalia.

### **RESEARCH QUESTIONS**

1. Is there a relationship between educational technology and projectors on student academic achievement in Benadir Region, Mogadishu-Somalia?
2. Is there a relationship between educational technology and the internet on students' academic achievement in Benadir Region, Mogadishu-Somalia?
3. Is there a relationship between educational technology and Computers on student's academic achievement in Benadir Region, Mogadishu-Somalia?

### **HYPOTHESIS**



1. Is there any significant between projectors and student academic achievement in Benadir Region, Mogadishu-Somalia?
2. Is there any significant between the internet and students' academic achievement in Benadir Region, Mogadishu-Somalia?
3. Is there any significant between Computers and students' academic achievement in Benadir Region, Mogadishu-Somalia?

## FINDINGS

**Table 1 Multiple Regression Analysis**

Model	Unstandardized		Standardized			
	Coefficients		Coefficients	T	Sig.	
	B	Std.Error	Beta			
(Constant)	2.176	.621		3.504	.001	
Computers	.163	.120	.132	1.361	.177	
Projectors	.010	.099	.011	.101	.919	
Internet	.327	.108	.307	3.018	.003	
Dependents Variable: Student's academic Achievements						
<b>R<sup>2</sup> = .361</b>	<b>Adj. R<sup>2</sup> = .130</b>		<b>F=4.835</b>		<b>P( F Statistic)= 0.004</b>	

The result of multiple regression analysis in Table 1 shows that the value of adjusted R square is 0.130, which means 13% of the total variance in academic Achievements of the students is explained by all independent variables used in this study to measure the use of educational technology. The model used for the study is found as appropriate and significant with a value of  $p < 0.05$ . Internet ( $\beta = 0.327$ ,  $p < 0.01$ ) has significant positive impact on academic Achievements of the students. Therefore, H3 is supported by this finding of the study. A similar result was revealed by Azizi et al. (2019) and Kolan and Dzandza (2018) in their studies. However, the Computer and projector usage doesn't have any significant impact on the academic achievements of the students since p values are higher than 0.05. Therefore, H1

and H2 are not supported by the findings of the study. This result is consistent with the finding in the study done by Celestine and Nonyelum (2018)

## **CONCLUSIONS**

The findings of this paper conclude that Educational Technology platforms in general have a statistically significant positive impact on students' academic achievements in the Benadir region, Mogadishu Somalia. Based on the findings, Educational Technology could be classified as a useful learning aid. The paper used a survey research design in which a self-administered questionnaire was administered to 101 respondents from educational sectors in Benadir Region, Mogadishu-Somalia. The multiple regression results indicate educational technology has a significant influence on students' academic achievements. This result answers the questions and hypothesis of the study. Therefore, the paper concluded that

Educational technology influences students' academic achievements. Above all, in the era of globalization and education, a single day can't be thought without using technology and the internet but should be used in a limited and positive way without getting addicted.

## **RECOMMENDATIONS**

Based upon the previous results or findings the researcher is suggesting the following recommendations to business people and every other sector which involves the private sector This study revealed that Educational Technology has become pivotal (very important) to the Student's Achievement;

- Managements of Schools should give attention to educational technology and capacity building in the Schools to enhance student achievement
- Top managements of Schools should aid their students in hence their quality of students.
- Managers of Schools should motivate their teachers to obtain increased and quality teaching.
- Schools should reward their employees to increase the sustainability of their school and students to be a success
- To Increasing, relevance should use Recommender systems to improve cross-sell by suggesting additional technology for the student's teaching method.

## REFERENCE

- (Dickey and Kherlopian). (1998). *Computers. African american jornal*, 123-134.
- (Hativa and Shorer, 1989; Neuman, 1991). (1991). *Computers and students achievement. Pakistan journal*, 54-90.
- (Hativa, 1994; Hativa and Becker, 1994; Hativa and Shorer, 1989).
- (1989). *Computer technology. an international journal*, 43-55.
- (Westera and Sloep. (2001). *Technology. International jornal*, 54-90.
- Agnello, White, & Fryer, (2006). *Academic achievement. It nets journal*, 88-97.
- Brown, G., Bull, J., & Pendlebury, M. (1997). *Student achievement. Pakistan international jornal*, 98-124.
- Cuban. (1993). *Educational technology. Asian internationaljornal*, 71-82.
- Cuban, 1993; Scott, Cole, and Engel, (1992). *Computers and classroom learning. Americn international jornal*, 90-108.
- Cuben And Rafer. (2000). *The impact of educational technology on academic achievement. NAEP Validity Studies*, 1-60.
- Dabalen and Oni. (2014). *Education growth in Somalia. World bank journal*, 38-64.
- Dewey, John. ((1944) (1916)). *Educational. International Journal*, 1-18.

*Fitzgerald, Burnett and. (1995). The impact of Educational technology on student achievement. Spring Journal, 1-13.*

*Gibson. (2011). the impact of educational technology on academic achievement. pakistan international jornal, 198-214.*

*Harber. (1987). The educational technology and students' achievement. American Jornal, 50-68.*

*Januszewski. (2001). Educational technology. International jornal, 56-80.*

*Januszewski, Luppisini, . (2001,2007). Educational technology. American academic jornal, 386-398.*

*Kedem. (1999). Internets and student achievement. Palistan international jornal, 224- 238.*

*Parsad And Jones. (2005). The effect of educational technology on students' performance. American Schooler Jornal, 308-320.*

*Prensky, M. (2001). Projectors. Acadamic jornal of India, 97-108.*

*Reiser & Ely. (1997). Computers And student achievement. Journal of education, 66- 79.*

*Richey, R. C., Silber, K. H., & Ely, D. P. ( (2008)). Educational technology. International Journal, 50-70.*

*Rosan and well. (1995). Contemporary Educational policy. International american jornal, 60-90.*

*Shavinina. (2001). Educational technology and classroom learning. Winthrop University jornal, 65-73.*

*Sprenger. (2010). Educational technology. Internationla academicjornal, 87-106.*

*Thomas. (1987). Educational technology and learners. Pakistan eductional jornal, 24- 56.*

*Walther. (1999 ). Internets. International academic jornal, 99-128.*

*Warner. (1996). The impact of educational technology on students' achievement.*

*Spring Journal, 13-50.*

*Wenglinsky. (1998). Education and technology. Positive academic jornal, 32-*

*48. Winner. (2001). Educational technology and academic achievement.*

*International Journal, 36-55.*

