

THE IMPACT OF ONLINE EDUCATION ON ACADEMIC PERFORMANCE AMONG UNIVERSITY STUDENTS IN THE BANADIR REGION

Abubakar Hassan Mohamed*

Abstract


This study was intended to investigate the impact of online education on academic performance among university students in Mogadishu Somalia. This study conducted a descriptive research design with a quantitative approach to accomplish research objectives. The study conducted primary data and used a questionnaire as a method of collection. The target population of this study is based on the students among universities in Banadir region. Students with a sample size of 130 respondents. The data was taken from respondents through a questionnaire and the data were analyzed by SPSS version 20 and excel 2010. The specific objectives for the study were to determine the effect of the e-learning system on academic performance, to investigate the effect of class attendance on academic performance, and satisfaction students' online system on academic performance. Research of this study recommended that the organizations that provide internet service make it easier for the student to access cheap internet and high-speed internet.

Keywords: online education, e-learning system, universities students, effect of class attendance, internet service, Banadir region

Introduction

After the outbreak of the coronavirus, learning was one of the most affected sectors of the world. With the introduction of online education, the world got acquainted with the ease of having deliverable instructions and course materials at their fingertips using the internet and other "computer-mediated communication tools" (Yang and Cornelious 2005)¹.

According to Ampofo and Owusu (2015)², "Academic performance is more likely to be experienced and evidenced when students feel personally validated and believe that their effort matters and can influence or control the prospects of their academic success. In reality, these inspire them to develop a sense of purpose and perceive the school experience as being personally relevant". However, in Pakistan, academic performance is known to be how accurately the pupil has comprehended the course material to share with their peers and how well they are performing within the boundaries of a classroom. Some experts refer to academic performance as "the outcome of education" or "school

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¹ Yang, Y., and L. Cornelious. 2005. —Ensuring Quality in Online Education Instruction: What Instructors Should Know?| Annual Proceeding of the Association for Educational Communications and Technology (1): 2

² Ampofo, Eric Twum, and Benedict Osei Owusu. 2015. —Academic Ambition and Effort in the Public Senior High Schools. | International Journal of Academic Research and Reflection 3(5): 2.

performance” and even “academic achievement”. Nevertheless, in Nigeria, academic performance is one of the most critical and significant educational problems relevant to public interest on the basis of bad performance in academics by the pupils especially in public examinations and at schools or various other institutions (Aina Jacob Kola, 2014)³.

Consequently, in Somalia, Academic performance is judged on the basis of how good a student is performing in the classroom, completing his/her assigned tasks, and some of the other factors that are used to determine a student's academic performance include; behavior, grades, extracurricular activities, attendance, and standardized tests. The idea depends on the fact that every individual within an academic setting showcases differences based on their personality and intelligence.⁴ Although online education is a significant problem in Somalia, however, there is a literature gap when it comes to the problem under investigation at hand therefore, this research was carried out to identify what influence online education has on performance in academics among university going students in the Banadir region in Somalia. The Sustainable Development Goals (SDGs) aim to encourage sustained academic performance by achieving a high level of education and through technological innovation. Stimulating academic performance and to boost and advance introductory knowledge about science and sustainability education, and employ students in energetic, pragmatic, and “Praxis-orientated” education and explore the support a blended learning design can lend to the learning of the students online and their online commitment on the basis of the experiences and perceptions of a group of students who have previously learned about academic performance.

Online education has a negative impact on students' academic performance which causes the delay arising from online learning. The student does not access face-to-face class, a full hour of the lecture. In access to high-speed internet that can cause the student to confuse the lecture and can lead the student to drop out the lecture, which leads further to the students can't understand the subject and the resulting is the low grade among students lack the speed of internet decrease the students' performance such as quizzes, assignments, teacher's oral questions during the lecture. Although many studies related to the problem under investigation have been conducted in many parts of the world, yet there is a gap in the study area. To bridge this gap and find out the impact of online education on academic performance among university students in the Banadir region. This study was intended to investigate the impact of online education on academic performance among university students in Mogadishu Somalia.

Significance of the Study

This research will come in handy for the institutions of the Banadir region (public and private institutions, both) for realizing the upraising issues regarding the online learning platforms and with these, they can study the tested solutions as well. The study will also be benefited by the locals because it creates conscious awareness of the severity of a particular problem and also the urgency of the need for a solution.

³ Aina Jacob Kola, Teaching method in science education: the need for a paradigm shift to peer instruction (PI) in Nigerian schools, 3(6), 2015, 6-15

⁴ *Ibid.*

The objective of the study

The general objective of this research is to find out The impact of online education on academic performance among university students in the Banadir region.

1. To determine the effect of the e-learning system on academic performance in the Banadir region.
2. To investigate the effect of class attendance on academic performance in the Banadir region.
3. To assess the effect satisfaction of students' online system on academic performance in the Banadir region.

Research Methodology

The study conducted primary data and used a questionnaire as a method of collection. The target population of this study is based on the students among universities in Banadir region. Students with a sample size of 130 respondents.

This was a descriptive study which indicates that it was designed to define the issues under inquiry. In this type of design, the researcher intends to describe the problem rather than analyze it.

The study was also cross-sectional in design. This type of design allows the researcher to collect research data at one point in time.

The study will also be quantitative in design. In quantitative design, the researcher aims to determine the problem numerically. This type of design doesn't need to go deep into the details of the problem.

During data collection, the researcher was targeting students in Mogadishu, Somalia. These groups were regarded as the target population for this type of study.

Using Slovene's formula, a sample size of 60 respondents was selected out of the population of 194. The researchers made sure that the sample size was enough to validate the reliability of the findings so the accuracy of the findings will be ensured.

The sample size of 60 students was calculated with the formula mentioned below; $n =$ required sample size

N = Target population e = sampling error

N = Target population

e = sampling error

$$n = \frac{N}{1 + N(e^2)} = (e)^2 = (0.05)^2$$

$$n = \frac{194}{1 + 194(0.0025)} = \frac{194}{1.485} = 130$$

$$n = 130$$

The sampling procedure was probability sampling in this study was used for random selection to select sample size. In the random selection sampling, the researcher decides who can participate procedure Sample random sampling is based on the assumption that the researcher is able to select elements of participants.

The key aim of this sample was to gather focus data. Researchers were selected since they were able to judge and choose population members who are good prospects for accurate information and it also meant to be time-friendly and economical.

The instrument used as the prime research priority while doing this study has been a custom-designed questionnaire. This questionnaire gathered primary data from the respondents for achieving the main motive behind this research study. Since this research study required big amount of data, this questionnaire has been very instrumental in establishing suitable connections among the research variables right while ensuring the research remains friendly to the time. Finally, since the majority of this questionnaire attendants were from the country's educated sector and were able to add value to this research through their literacy and reasonable writing skills, this served as another significant purpose behind utilizing this research study instrument. Hence, the data featured in this study is based on the literate respondents, collected through a questionnaire and analyzed through the excel version 2010 as well as SPSS version from the same year as excel.

Literature Review

Electronic learning or what is also called "E-Learning" is known to be one of the most contemporary developments of what we once used to call "distance learning". According to Elsevier (2007), distance learning is "a learning situation where instructors and learners are separated by distance, time, or both and uses network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere."

This modern development and advent of e-learning have now given a new turn to the underlying principles within the educational as well as the library services. It was

introduced in order to serve as a learning platform for a society such as ours and bulldoze all the restrictions when it comes to imparting and sharing knowledge. But how do experts define the term "e-learning"?⁵

Most people today consider that if an individual is learning with the help of a computer, he/she is indulging in something known as "online knowledge acquisition" via the internet, or softcopy study materials like USBs or CDs. More and more people by the day are preferring to use network technologies to simplify, nurture, convey and generate learning content without any restrictions of time or place. According to (DfES, 2003), E-learning can also be defined as "the use of the internet and digital technologies to create experiences that educate our fellow human beings and it has the potential to revolutionize the way we teach and how we learn".

As Abimbade (2002) and Rozina (2002) mention, "educational technology vis-à-vis instructional technology whether as a field of education or new terminology to what has been there before like teaching aids or apparatus, as it was earlier called but recent achievements in the field of computer and communication technologies have offered tremendous opportunities for learning by electronic means".

We can agree that the world today has been reduced to becoming a global village where people can connect with each other. Ever since the start of the 21st century, we have noticed that educational technology has been exploring new horizons and has made several breakthroughs. Abimbade (2002) believes that due to these breakthroughs e-learning has been able to expand its horizons and has provided an unfathomable benefit to the educational sector.

With the advent of contemporary educational instruments like the Internet or other advanced multimedia technologies, the learning-teaching connections have observed improvements in terms of the quality of learning content, proficiency, and user-friendliness. This was made possible by the use of information resources and different services of the same category and with this, the remote exchanges and collaborations were then normalized.

As per the study of Holley (2002), it is found that pupils of the higher educational institutions performed better when they used e-learn as their mode of education instead of the times when they learned through face-to-face lectures or interactions. Now that E-learning has been gaining its momentum more rapidly than the previous decade due to the outbreak of the pandemic and various educational institutions all across the world are adopting the e-learning model.

Electronic learning (or E-learning) is quite commonly found in the educational systems of the world today with various schools and universities adopting it. But the e-learning system doesn't add value to each and every educational institute on this planet. The problem is that these institutes do not think about how the system is affecting the academic performance of their students. All they consider is a general opinion and implement that general opinion within their educational institution. When we searched deeper, we

⁵ Olanivi, E-Learning is All About Learning That Occurs On The Computer, (2006)

realized that there is a prominent literature gap when it comes to the connection between e-learning and students' performance in academics all across the world.

Class Attendance means active learning in a class where the students practice vocabulary, do some listening and reading and speak about different topics. In the classes, students interact with each other as well as with the teacher. For that reason, classes should be small in number. According

The specific objectives for the study were to determine the effect of the e-learning system on academic performance, to investigate the effect of class attendance on academic performance, and satisfaction of students regarding the online system when it comes to their academic performance. Research of this study recommended that the organizations that provide internet service make it easier for the student to access cheap internet and high-speed internet.

Findings

The findings based on the analysis of the study showed that 65.54% of the questionnaire attendants who took their part in the study were male and the rest 34.6% were females.

60.8% of the research questionnaire attendants who took their part in the study were aged b/w 18-15, 25. 4% were aged b/w 26-35, 11.5% were aged b/w 36-45, 2.3% were aged above 46 according to their age.

Furthermore, 65.4% of them were single, 20% were married, and 14.6% were divorced according to my question about their marital status.

The above Bar-chart shows that 56.9% of the questionnaire respondents studied from Mogadishu University, follows that 18.5% studied from Banadir University, follows that 13.1% of those respondents studied from Simad University, and the rest 11.5% of the participants studied from Hormud University.

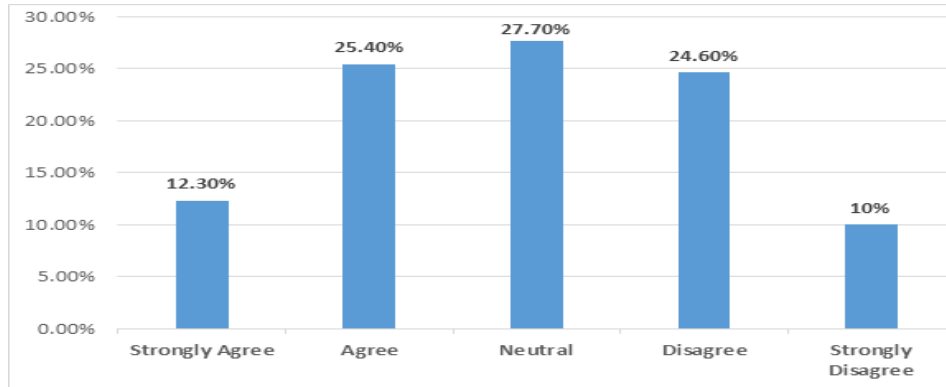
Around 53.8% of this research study's participants were on the bachelor' degree level, follows that 28.5% of the participants were on the Postgraduate level, and the rest 17.7% were on the Diploma level. Therefore, according to their level of education, most of the research participants belonged to the Bachelors' degree level, followed by the Postgraduate level, while the rest are from the Diploma level.

In addition to this, this research proves that 26.9% of the questionnaire attendants answered Neutral in the above question, followed by 24.6% selecting Agree in the above question, further followed by 23.8% marking Disagree in the above question, whereas 14.6% of them answered Strongly Agree in the above question, and the rest of the 10% responded with Strongly Disagree in the above question.

Later on, the study shows that 26.9% of the questionnaire attendants answered Neutral in the above question, follows that 24.6% answered Agree in the above question, follows that 23.8% answered Disagree in the above question, follows that 14.6% answered

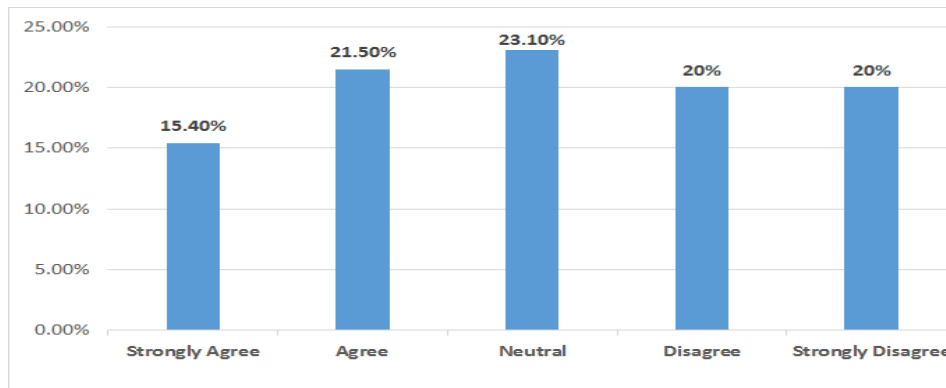
Strongly Agree in the above question, and the rest of the 10% of the respondents answered Strongly Disagree in the above question.

Figure 1: Online learning is often frustrating because of technical problems.



23.1% of the questionnaire attendants answered Neutral in the above question, follows that 21.5% answered Agree in the above question, follows that 20% answered Disagree in the above question, follows that 20% answered Strongly Disagree in the above question, and the rest of the 15.4% of the respondents who took a part in the study answered Strongly Agree in the above question.

Figure 2: students are able to provide better feedback to their online teacher on their performance in the course.

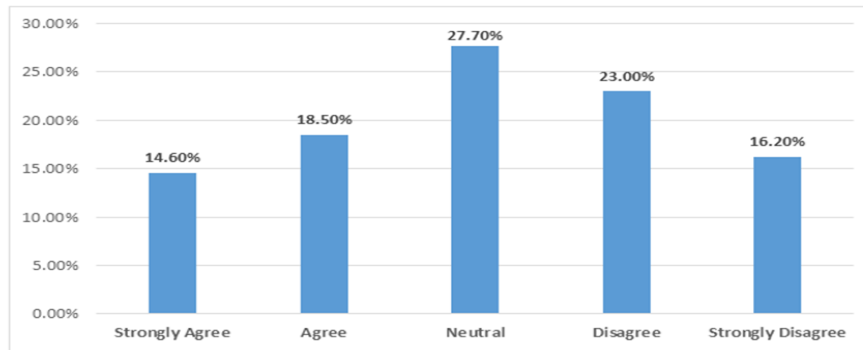


In the table below, the study shows that 27.7% of the questionnaire attendants answered Neutral in the above question, follows that 23% of the respondents answered Disagree in the above question, follows that 18.5% answered Agree in the above question, follows

that 16.2% of the respondents answered Strongly Disagree in the above question, and the rest of the 14.6% of them answered Strongly Agree in the above question.

Moreover, 30% of the questionnaire attendants answered Agree in the above question, follows that 22.3% answered Disagree in the above question, follows that 19.2% answered Neutral in the above question, follows that 15.4% answered Strongly Agree in the above question, and the rest of the 13.1% of the respondents participated in the study answered Strongly Disagree in the above question.

Figure 3: Can students can access their online course from any place in the world?

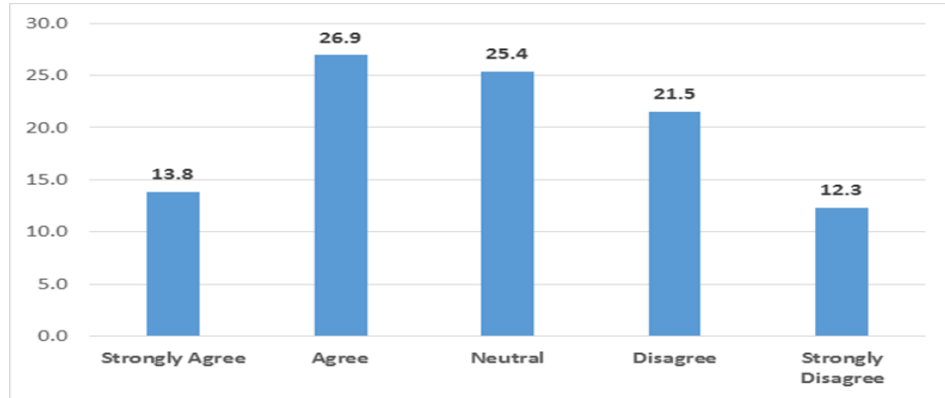


Later on, the analysis showcased that 28.5% of the questionnaire attendants had answered Disagree in the above question, follows that 26.9% answered Neutral in the above question, follows that 23.8% answered Agree in the above question, follows that 13.8% answered Strongly Disagree in the above question, and the rest of the 6.9% of the respondents participated in the study answered Strongly Agree in the above question.

Additionally, 23.8% of the questionnaire respondents who played their part in providing data for this study answered Neutral in the above question, follows that 23.8 answered Agree in the above question, follows that 23.1% answered Disagree in the above question, follows that 16.2% answered Strongly Disagree in the above question, and the rest of the 13.1% of the respondents answered Strongly Agree in the above question.

Up to 26.9% of the participants answered Agree in the above question, follows that 25.4% answered Neutral in the above question, follows that 21.5% answered Disagree in the above question, follows that 13.8% answered Strongly Agree in the above question, and the rest of the 12.3% of the respondents answered Strongly Disagree in the above question.

Figure 4: Students can get online courses any time it is convenient to

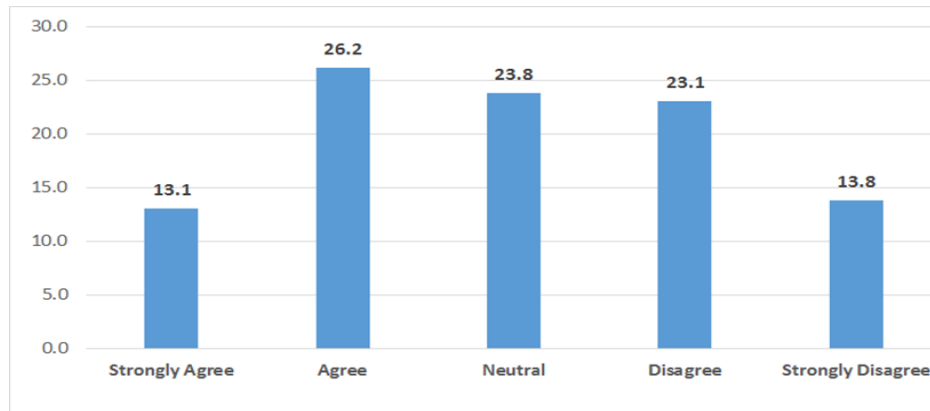


In addition to this, the analysis mentioned that around 30.8% of the respondents answered Agree in the above question, follows that 23.1% answered Neutral in the above question, follows that 23.1% answered Disagree in the above question, follows that 12.3% answered Strongly Disagree in the above question, and the rest of the 10.8% answered Strongly Agree in the above question.

In table 4.2.10, 26.2% of the questionnaire attendants responded with Agree in the above question, follows that 23.8% answered Neutral in the above question, follows that 23.1% of the respondents answered Disagree in the above question, follows that 13.8% answered Strongly Disagree in the above question, and the rest of the 13.1% answered Strongly Agree in the above question.

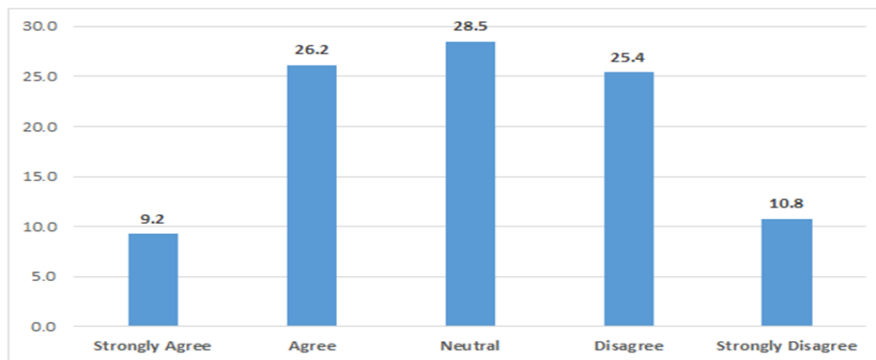
Further, the study shows that 26.2% of the respondents answered Agree in the above question, follows that 26.6% answered Disagree in the above question, follows that 23.1% answered Neutral in the above question, follows that 17.7% answered Strongly Disagree in the above question, and the rest of the 6.9% answered Strongly Agree in the above question.

Figure 5: There are encounter any technical problems during the course internet but not many



Henceforth, table 4.2.12 shows that 28.5% of the respondents who participated in the study answered Neutral in the above question, follows that 26.2% answered Agree in the above question, follows that 25.4% answered Disagree in the above question, follows that 10.8% answered Strongly Disagree in the above question, and the rest of the 9.2% answered Strongly Agree in the above question.

Figure 6: Students attend class more frequently when students see the benefit of their learning



In addition to this, table 4.2.13 shows that 26.2% of the questionnaire attendants answered Agree in the above question, follows that 26.2% answered Disagree in the above question, follows that 23.1% of them answered Neutral in the above question, follows that 17.7% answered Strongly Disagree in the above question, and the rest of the 6.9% answered Strongly Agree in the above question.

Consequently, the study shows that 28.5% of this study's research respondents answered Neutral in the above question from the questionnaire, follows that 26.2% answered Agree in the above question, follows that 25.4% answered Disagree in the above question, follows that 10.8% answered Strongly Disagree in the above question, and the rest of the 9.2% answered Strongly Agree in the above question.

And the last analysis based on the last question of the questionnaire showed that 30.8% of the respondents who participated in this primary research study answered Disagree in the above question, follows that 23.1% answered Agree in the above question, follows that 21.5% answered Neutral in the above question, follows that 13.8% answered Strongly Agree in the above question, and the rest of the 10.8% of the respondents answered Strongly Disagree in the above question.

Conclusion

In conclusion, online learning is often frustrating because of technical problems the analysis shows that 27.7% of the respondents who took a valuable part in this research study answered Neutral in the above question, follows that 25.4% of those respondents answered Agree in the above question, follows that 24.6% answered Disagree in the above question, follows that 12.3% answered Strongly Agree in the above question, and the rest of the 10% of the respondents chose to answer Strongly Disagree in the above question. But, students attend classes regularly because it makes it easier for the student to understand better as it shows that 26.2% of the respondents who participated in this research study answered Agree in the above question, follows that 26.6% answered Disagree in the above question, follows that 23.1% answered Neutral in the above question, follows that 17.7% answered Strongly Disagree in the above question, and the rest of the 6.9% of the respondents participated in the study answered Strongly Agree in the above question.

Reviewing all these questions and discussions, it is concluded that all the members of an academic organization (including teachers and students) should follow a few set of recommendations when providing internet service to students in Mogadishu, Somalia:

1. Firstly, the students should feel adaptive to change and technology in today's age of evolution. The online mode of teaching might feel a little crude in the beginning but it has several perks and practicalities and taking notes in an online class is much easier.
2. Secondly, when providing this facility, academic institutions should be requested to pay for the on-campus internet service as well so that students can have access to economical but high-speed internet.
3. Lastly, teachers should make their online classes more interactive and creative even when teaching online. Online classes may infest the feeling of distantness in the relationship that a student and teacher may share.

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Appendix

Questionnaire

I am a researcher conducting a study on the impact of online education on academic performance among university students in the Banadir region. As respondent, you have been selected to participate in this study. Information shared will be kept confidential and will only be used for the purpose of the study. I kindly request you answer the questions as honestly as possible.

1. Socio-demographic data/

personal information Section

2. Gender

Male female

3. Age

18-25 26-35 above 36-45 over 46

4. Marital status

Married Single Divorce

5. Educational level

Diploma bachelor Post-graduation Secondary level

6. University study

Mogadishu university Simad university Banadir university
 Hormuud university

SECTION TWO: PLEASE

TICK THE APPROPRIATE ANSWER

Indicate your level of agreement to the following statements concerning the Impact Of Online Education On Academic Performance Among University Students In Banadir Region. Please put (√) where it is appropriate by using the following five scales:

- A) Effect satisfaction students online system on academic performance in Banadir region.

Satisfaction	Agree	Strong Agree	Neutral	disagree	Strong disagree
1 The level of interactions with students in the onlinecourse is higher than in a traditional face-to-face class					
2 Online learning is oftenfrustrating because of technical problems					
3 Students are able to providebetter feedback to their online teacher on their performance in the course.					
4 It is valuable to the students can access theironline course from any place in the world.					
5 Availability of informationabout course requirement					

2. *Effect of e-learning system on academic performance in Banadirregion.*

1=agree 2=strong agree 3= neutral 4=disagree 5=strong disagree.

e-learning system		agree	Strong agree	Neutral	disagree	Strong disagree
1	The technology used for online teaching is Reliable					
2	is a way to provide quick delivery of lessons but sometimes internet may not be good					
3	student can get online course any time it is convenient to.					
4	its help you to continue your education if you are unable to attend the class					
5	There are encounter any technical problems during the course internet but not many					

3. *The effect of class attendance on academic performance in hBanadir region.*

1=agree

2=strongly agree

3= neutral

4=disagree

5=strongdisagree.

class attendance		Agree	Strong Agree	Neutral	disagree	Strong disagree
1	Student attend classes regularly because it makes it easier for the student to understand better					
2	Student attend class more frequently when students see the benefit of their learning.					
3	Students can keep up with requirement of the course,					
4	Students are more likely to attend classes when teachers encourage, students to participate in-class activities.					
5	Poor attendance by the student in a class may affect their grades or other evaluations					