

Impact of ICT on Student Achievement: (A Case Study of Federal Polytechnic, Damaturu)

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Abstract:

Students in modern education are not supposed to be limited to learning in a classroom setting. They are expected to explore the vast horizons of knowledge made available today through ICT. This paper explores the relationship between ICT and the performance of students at the HND level. The research sample was taken from a group of HND II students in SMS at Federal Polytechnic Damaturu (FEDPODAM). The study found that the impact of ICT on the academic performance of the students was very negligible. The findings also reveal that the majority of the students are in the dark about the potential role of ICT in their academic life. Moreover, it has been found in the research that the ICT access provided to students is not utilized to enhance academic performance but rather a source of recreation. The paper also suggests steps that, if taken, would ensure better use of ICT by the students and would, in the long run, develop a healthy and fruitful relationship between ICT and academic performance.

Keywords: *ICT, Student Performance, FEDPODAM*

Introduction:

Because of its uses in various industries, including education, ICT has become a hot topic in the technological world. Information and communication technologies (ICTs) are widely recognized as a modern instrumental tool that allows educators to change their teaching methods in order to improve student performance. Around the world, educational institutions have adopted ICT as a teaching method and provide ICT-related academic degrees(1). Different educational institutions in Damaturu have utilised ICT as a teaching tool. FEDPOLY Damaturu is one of the top departments in the SMS that offers ICT courses by merging ICT courses into multiple programmes. As a result, it is past time to analyse students' access to ICT and its impact on their academic achievement. Desktop and laptop computers, software, peripherals, and Internet connections are examples of ICT. They are used to perform information processing and communication operations. There is no universally accepted definition of student achievement. The traditional method emphasizes success and curricula, as well as how students comprehend courses and acquire certificates or grades(2). We use their CGPA as the basis of performance in our study; a greater CGPA denotes better achievement, while a lower CGPA suggests worse performance.

Objectives of the study

The study's main goal is to determine the association between ICT accessibility and performance among SMS FEDPOLY Damaturu HND students. The secondary objectives are as follows:

1. To investigate why students do not have access to ICT facilities.
2. To ascertain the reasons why students are unable to improve their academic performance by utilizing whatever ICT resources they have available.
3. To learn how students feel about the connection between ICT use and academic performance.
4. To find out how pupils use ICT to pass the time.
5. To suggest measures that can be taken to overcome if any deviation is found.

Methodology of the study

To meet the objectives of this study, we employed primary sources of information. The respondents provided primary data via a prepared questionnaire that included both open-ended and closed-ended questions. The study's sample size was chosen from HND-ii students at the Federal Polytechnic Damaturu's School of Management Studies. The sample size was 110 students (those who had finished at least three semesters and had their results published), and they were given a questionnaire to fill out. There were two primary sections to the questionnaire. The first section of the questionnaire inquired about the demographic characteristics of the sample's respondents. The second section of the survey inquired about the students' knowledge and experience with ICT. This section aimed to determine whether respondents have access to a computer and the Internet, and whether they use them for academic purposes or for other purposes such as watching movies, social networking, listening to music, or simply browsing for fun. In terms of data analysis, correlation analysis was utilized in conjunction with SPSS to determine the impact of ICT on the students' CGPA (performance). The variables 'CGPA' and 'access to ICT' were correlated. Distinct weights have been assigned to different ICT factors in this situation. (e.g. Desktop computer=3, Laptop computer=3 and Internet=4).

Literature review

The relationship between ICT use and student achievement in higher education is unclear, and the literature yields varied results. Previous economic research has been unable to reach a clear conclusion about the impact on student achievement. The outcomes of these studies are mixed. On the one hand, there is research by (3), (4), (5), (6), (7), and others. There is little indication of a crucial role for ICT in higher education, according to (8), (9), (10) and (11).

On the other hand, certain research, such as (10), (12), (13), (14), (15), (16), (4), demonstrate a real impact of ICT on students' achievement, as can be seen from the above, there are mixed outcomes when it comes to the relationship between ICT use and student performance. However, no research on this topic has yet been undertaken at FEDPOLY

Damaturu. What is the relationship between ICT accessibility and FEDPOLY Damaturu HND students' performance? Because both positive and negative correlations may emerge, a study on the subject to determine the actual link between these two factors would reveal the true picture.

Findings

1. Naturally, student achievement in higher education and information and communication technology are intimately intertwined in this decade. Surprisingly, the correlation coefficient (r) in this study is 0.012, with a significance level of 0.904, indicating that there is a very weak positive association between student performance in higher education and information and communication technologies. We see no impact of ICT on the performance of the HND students of FEDPOLY Damaturu, as we have seen in other studies conducted in numerous educational institutions over the last few decades.

Table-1: Correlations analysis

		Technology Available	CGPA
Technology Available	Pearson Correlation	1	0.012
	Sig. (2-tailed)		0.904
	N	110	110
CGPA	Pearson Correlation	0.012	1
	Sig. (2-tailed)	0.904	
	N	110	110

It's important to look into the various causes of this outcome. One of the main reasons is that pupils do not use ICT for academic purposes. The poll also backs up this claim.

Table 2 depicts the students' attitudes towards how much time they spend on the computer listening to music, viewing movies, browsing for no reason, and so on.

Table-2: Students' view point

	Strongly agree	Agree	Disagree	Strongly disagree	Total
No of students	19	47	33	10	109

Around 61% of SMS students at FEDPOLY Damaturu spend the majority of their time listening to music, watching movies, and looking for other forms of amusement, such as social networking.

2. Students also agree that the majority of HND students at FEDPOLY Damaturu do not devote a significant amount of time to using ICT for academic purposes. Table 3 illustrates whether SMS students at FEDPOLY Damaturu spend the majority of their computer time for academic purposes.

Table-3: Students' view point

	Strongly agree	Agree	Disagree	Strongly disagree	Total
No of students	2	35	52	21	110

Surprisingly, roughly 66 percent of those polled disagreed with the preceding statement.

Students have a negative attitude about ICT. In a digitally equipped world, they don't see technology as a tool to help them improve their academic achievement.

Table 4 depicts the students' attitudes regarding persons who have computers and access to the internet, as well as whether or not their outcomes are satisfactory.

Table-4: Students' view point

	Strongly agree	Agree	Disagree	Strongly disagree	Total
No of students	1	20	59	29	109

Around 80% of pupils disagreed that computers and the internet improve students' academic achievement.

Recommendations

- 1.This study discovered that pupils who do utilise ICT do so mostly for non-academic purposes. This pattern must be reversed in order to ensure that ICT resources are used to improve academic success.
2. Academic institutions should provide adequate logistical support to ensure that all students have frequent access to ICT facilities.
3. Some pupils are reluctant to use ICT. If we are to enjoy the rewards of technological advancement, such beliefs must be reversed by measures taken by educational institutions themselves.
4. Educational institutions should adopt a proactive approach to introducing students to ICT by emphasizing how it might assist them improve their performance. This would make the application of ICT to academic tasks considerably more relevant.

Scope for further research

This research is simply the beginning of a larger investigation into the impact of ICT on HND student performance. The findings of the study give future scholars sufficiently of fodder for more in-depth investigation into the subject. It would be fascinating to compare the impact of ICT on students' performance in private institutions with that of students in the country's public Polytechnics.

Conclusion

In a world where technology is becoming increasingly significant, it is critical to promote and increase the use of ICT in the academic setting in order to keep current with the rest of the world and to take advantage of the opportunities that the modern world has to offer. In this perspective, this study demonstrates that we still have a long way to go in terms of our understanding of ICT as a valuable instrument for improving academic achievement. If academic institutions take appropriate steps to encourage the use of ICT for academic purposes, taking into account the findings and recommendations of this study, we can hope to avoid such an undesirable situation and move forward to having a student body that is technologically aware.

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