



Awareness about ICT and Academic Achievement of Senior Secondary School Students in Tarauni and Nassarawa Local Government Areas of Kano State, Nigeria.

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ABSTRACT

This study is carried out to investigate the awareness about ICT and academic achievement of Senior Secondary School Students. The study was conducted in Tarauni and Nassarawa Local Government Areas of Kano State, Nigeria. The main objective of the study is to find out (i) the level of ICT awareness and academic achievement. (ii) the relationship between ICT awareness and academic achievement of secondary school students. A descriptive survey design was used for the study with a sample size of 183. A self-made questionnaire was framed to collect the data. The data were analysed by using 't' test and correlation. Results revealed that (i) the level of awareness about ICT was high (ii) The level of academic achievement is average (iii) there is a significant difference in the mean scores of ICT awareness and academic achievement based on (a) Gender (b) Branch of study and (iv) there is a significant relationship between awareness about ICT and academic achievement of Senior Secondary School Students.

KEYWORDS

ICT, Awareness, academic achievement, Senior Secondary School Students.

INTRODUCTION

MEANING OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

Onyije and Opara (2013) defined ICT as tools or resources that could be used to process, store, perceive, retrieve and disseminate information with ease [1].

AWARENESS ABOUT ICT

There is a rapid increase to the awareness of ICT in education settings in the 21st century. In recent years, there has been a groundswell of interest on how ICT can be used in the educational settings [2]. ICT (information communication technology) gives a vital platform for the learners in the current scenario where they can learn by discovering, exploring new facts about the learning material [3]. Available literature specified that Nigerian students are aware of the empowering potentials of digital technology. Access to ICT by secondary school students helps them to download academic information that may not be readily available in their textbooks or schools libraries [4]. Many of researchers have investigated the attitude of Students and Faculty regarding ICT awareness. M. J. Philomina and S. Amutha (2016) concluded that science teacher Students and Faculty are more aware about ICT use in teaching as compare to arts teachers. Similarly female teachers won from male teachers in ICT awareness. Beena and Madhu Mathur (2012) found that male students have shown higher awareness as compare to female students for the use of ICT in education [5].

ICT AND ACADEMIC ACHIEVEMENT

Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. Academic achievement as measured by the GPA (Grade Point Average) or by standardized assessments.

The OECD (The Organisation for Economic Co-operation and Development) has also investigated student performance at secondary level, providing evidence of the impact of ICT on concrete school achievements [6].

NEED AND SIGNIFICANCE OF THE STUDY

Most of the researches had been conducted on the use of ICT, but majority concentrated on Higher Education Students. And none

had been done in Tarauni And Nassarawa Local Government Areas. Hence the need to find the level of ICT awareness and skills of Senior Secondary School Students in this area.

OBJECTIVES OF THE STUDY

- To find out the level of awareness about ICT and academic achievement of Senior Secondary School Students.
- To analyse the differences if any in awareness about ICT and academic achievement of Senior Secondary School Students based on
 - Gender
 - Branch of study
- To find out the relationship between awareness about ICT and academic achievement.

RESEARCH HYPOTHESES

H1 – The level of awareness about ICT of Senior Secondary School Students is HIGH .

H2 – The the level of academic achievement of Senior Secondary School Students is HIGH .

H3 -There is no significant difference in the mean scores of awareness about ICT of Senior Secondary School Students with respect to
(a) Gender
(b) Branch of study

H4 -There is no significant difference in the mean scores of academic achievement of Senior Secondary School Students with respect to
(a) Gender
(b) Branch of study

H5 -There is no significant relationship between awareness about ICT and academic achievement.

METHOD OF STUDY

In the present study Descriptive Survey Method of investigation was employed.

SAMPLE

The sample extracted out of the population consists of total

number of 183 students from 6(six) senior secondary schools in Tarauni and Nassarawa Local Government areas, out of which 95 were girls and 88 were boys. The samples were selected through simple random sampling.

TOOLS

The tool used was a self structured questionnaire developed by the investigator with the help of guide and standardized as an appropriate tool to fulfill the need of finding out the level of awareness of senior secondary students. The questionnaire is on awareness about ICT with 3 point scale "3= Yes, 2= to some extent, 1= No". The questionnaire consists of 20 questions designed for both, boys as well as girls.

ANALYSIS AND INTERPRETATION OF DATA

H1 - Table No. (1) The Level of Awareness About ICT

Group	Score range	Number of students	Percentage
Low	0 -35	3	1.6%
Average	36 - 70	49	26.8%
High	71 - 100	131	71.6%
Total		183	100%

The above table **NO. (1)**, indicates that the level of awareness about ICT is High. Therefore the hypothesis is accepted.

H2 - Table No. (2) The Level Of Academic Achievement

Group	Score range	Number of students	Percentage
Low	0 -35	5	2.7%
Average	36 - 70	168	91.8%
High	71 - 100	10	5.5%
Total		183	100%

The above table **NO. (2)**, indicates that the level of academic achievement is average. Therefore the hypothesis is **rejected**.

H3(a) - Table No.(3) Critical Ratio For Awareness About ICT Based On Gender

Variable	Gender	NO	Mean	SD	't' Value	Remarks
Awareness about ICT	Male	88	82.56	11.75	2.281	S
	Female	95	76.91	20.27		
ICT				7		

The above Table **NO. (3)** indicates that the calculated 't' value (**2.281**) is greater than the table value (**1.96**) at **5%** level of significance. Hence the null hypothesis is rejected.

H3(b) -Table NO. (4) critical ratio for awareness about ICT based on branch os study

Variable	Branch of study	NO.	Mean	SD	't' Value	Remarks
Awareness about ICT	Art	63	83.20	14.35	2.090	S
	Science	120	77.75	17.88		

The above Table in **NO. (4)** indicates that the calculated 't' value (**2.090**) is greater than the table value (**1.96**) at **5%** level of significance. Hence the null hypothesis is rejected.

H4(a) -Table NO. (5) critical ratio foracademic achievement based on gender

Variable	Gender	NO.	Mean	SD	't' Value	Remarks
Academic achievement	Male	88	53.97	11.48	2.113	S
	Female	95	9.95	13.96		

The above Table **NO. (5)** indicates that the calculated 't' value (**2.113**) is greater than the table value (**1.96**) at **5%** level of significance. Hence the null hypothesis is rejected.

H4(b) -Table NO. (6) critical ratio foracademic achievement based on based on branch of study

Variable	Branch of study	NO.	Mean	SD	't' Value	Remarks
academic achievement	Art	63	55.51	8.50	2.789	S
	Science	120	49.99	14.43		

The above Table **NO. (6)** indicates that the calculated 't' value (**2.789**) is greater than the table value (**1.96**) at **5%** level of significance. Hence the null hypothesis is **rejected**.

H5 - Table NO. (7) therelationship between awareness about ICT andacademic achievement

Variables	N	r - value	table value	Remarks
awareness about ICT and academic achievement	183	0.462	0.138	S

The above table **NO. (7)** indicates that the calculated 'r' value (**0.462**) is greater than the table value (**0.138**) at **5%** level of significance. Hence the null hypothesis is **rejected**.

RESAERCH FINDINGS

- The level of awareness about ICT of Senior Secondary School Students is high.
- The level of academic achievement of senior secondary school students is average.
- There is a significant difference in the mean scores of awareness about ICT of Senior Secondary School Students with respect to Gender.
- There is a significant difference in the mean scores of awareness about ICT of Senior Secondary School Students with respect to Branch of study.
- There is a significant difference in the mean scores of academic achievement of Senior Secondary School Students with respect to Gender.
- There is a significant difference in the mean scores of academic achievement of Senior Secondary School Students with respect to Branch of study.
- There is a significant relationship between awareness about ICT and academic achievement of Senior Secondary School Students.

EDUCATIONAL IMPLICATIONS OF THE STUDY

- Students as independent learners, ICT awareness and practice can provide an environment for constructivists learning to occur. Constructivism sees learning as an active process in which the learner construct his own knowledge/meaning. This will enable them become active and not passive participants in learning, provide conducive environment to learn at their own pace and an opportunity to collaborate with other students and learn from each other.
- For teachers, this study will make them to have more concern about the level of their students' awareness towards ICT. This will increase their effort towards encouraging their students' to use ICT in their learning.
- This study will further encourage both teachers and students to be aware and use various educational softwares and ICT tools that are useful for education to support their teaching and learning process.

RECOMMENDATIONS

- Parents/Guardians should encourage their children by enrolling them into ICT programs at aearly stage. This is to help them acquire knowledge and exposure about ICT.
- Government should put an effort in the provision of infrastructure (cyber centres, classrooms building, offices,

etc.), Institutional network (LAN, WAN, WIFI), systems and applications (Internet, e - learning, education portals, etc.), capacity building, digital library, technical support in institutions, computer ownership scheme (for students, teaching and non-teaching staff), ICT content career development scheme, International Examination Digital Centre (IDEC) and continuous power supply. As this will help in increasing ICT awareness.

CONCLUSION

In the present study, 183 Senior Secondary School students in Tarauni and Nassarawa local government areas were surveyed. The purpose was to explore their awareness of the emerging ICT and ICT tools (such as computer, internet and mobile phone). And how ICT awareness and academic achievement are related. The results of the study show that there is an awareness about ICT among the secondary school students which is high but the awareness is more among the males than females. The study also reveals that level of academic achievement is average. The study further reveals that there is a strong relationship between awareness about ICT and academic achievement.

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