مجلة جامعة بني وليد للعلوم الإنسانية والتطبيقية تصدر عن جامعة بني وليد – ليبيا Website: <u>https://jhas-bwu.com/index.php/bwjhas/index</u> المجلد التاسع، العدد الثاني 2024



التعرف على درجة استخدام طلبة مرحلة التعليم الجامعي لتكنولوجيا المعلومات لتحقيق التعليم الذاتي لهم أ. حمامة الجاير أحمد قسم علوم الحاسب ، كلية تقنية المعلومات ، جامعة سرت ، ليبيا hamama.aljair@su.edu.ly

Degree in the use of IT by students at the tertiary level To achieve their self-education

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تاريخ الاستلام:19-05-2024 تاريخ القبول: 04-06-2024 تاريخ النشر: 21-06-2024

الملخص:

تهدف الدراسة إلى التعرف على درجة استخدام طلبة مرحلة التعليم الجامعي لتكنولوجيا المعلومات في جامعة سرت وذلك لتحقيق التعلم الذاتي لهم. وكذلك معرفة أثر تكنولوجيا التعليم في عملية التعلم ومعرفة دوافع استخدام التكنولوجيا الحديثة واراء الطلبة حول كفاءة وفاعلية التكنولوجيا الحديثة.

تتبع الدراسة المنهج الوصفي التحليلي حيث تم استخدام الاستبيان كأداة لجمع البيانات وتوصلت الدراسة الى مجموعة من النتائج وهي كالتالي:

وأظهرت نتائج البحث أن المتوسطات الحسابية الكلية لمحاور درجة استخدام طلبة جامعة سرت لتكنولوجيا المعلومات لتحقيق التعلم الذاتي بلغت (2.43) وبدرجة استخدام قليلة قد تراوحت المتوسطات الحسابية لمحاور البحث ما بين (2.20 – 2.52) حيث جاء المحور الأول "دوافع وانماط استخدام تكنولوجيا الحديثة لتطبيق الواتساب لتحقيق اهداف العملية التعلمية" (2.52 – 2.52) حيث جاء المحور الأول "دوافع وانماط استخدام تكنولوجيا الحديثة لتطبيق الواتساب لتحقيق اهداف العماية التعلمية" (2.52 بالمتوسطات الحسابية لمحاور البحث ما بين (2.52 - 2.52) حيث جاء المحور الأول "دوافع وانماط استخدام تكنولوجيا الحديثة لتطبيق الواتساب لتحقيق اهداف العملية التعلمية" بالمرتبة الأولى، و كما أظهرت النتائج أن هناك فروقاً ذات دلالة إحصائية عند مستوى الدلالة الإحصائية (α) في درجة الاستخدام تكنولوجيا المحاور وجاءت الفروق لصالح (الذكور). و الخلاب المعلومات على الأداة ككل وفي جميع المحاور وجاءت الفروق لصالح (الذكور).

Abstract

The study aims to identify the degree to which university students use information technology at the university of sirte in order to achieve self– learning for them, as well as knowing the impact of educational technology on the learning process and knowing the motives for using modern technology and student's opinions about the efficiency and effectiveness of modern technology.

The study follows the descriptive analytical approach, where the questionnaire used as a tool for collecting data.

The study reached asset of results, which are as follows:

The results of the research showed that the total averages of calculation of the axes of the degree of use of the students of Sirte University of Information Technology to achieve self-learning were 2.43. The calculation averages of the axes of the research ranged from 2.20 to 2.52. Results showed that there are statistically significant differences in the level of statistical significance ($\alpha = 0.05$).

In the degree of use condoles the impact of sex on the tool as a whole and in all axes the differences came in favor (Male).

Keywords: Information Technology – University – University Student – Self-learning – Usage.

Introduction:

Education technology has led to many changes in human societies, but remains the most dangerous of these techniques in the field of education in all its fields and applications.

This study based on the idea that the information age is a comprehensive scientific renaissance, which needs a mind that meets this age. Every new age means a new science. Without exaggeration, informatics have shared the course of science evolution into two parts: before and after information, or the information transfer as we will henceforth call it. (Ali Nabil: 2002: p. 13) Science and its philosophy are in a serious paradigm shift that far outweighs that of the Renaissance and a disadvantaged by some, and it has reborn old realities and father by restoring ancient knowledge and not by discovering modern knowledge. (Samir Hanna: 2004: p. 28)

Like any technology, IT does not exist in isolation from the rest of society. It deals with and a influenced by society through IT education as well as the existence of IT research and development centers.(Abdelmonim Yousef Bilal. p. 18)

Study Objectives:

The study aims to know the degree of use of information technology by university students through the application of WhatsApp in addition to identifying the goals achieved by the student through his learning through the application of WhatsApp. The study also seeks to highlight academic groups through the application that concerns all students with common interests and disciplines and its impact on their knowledge achievement. s views on the efficiency and effectiveness of modern technology.

On of the advantages of information technology is access to research and study materials from anywhere and at any time for communication between academics, researches and students(Barman.2021.p48).

Importance of the study:

The importance of the study is to focus on the degree of the use of information technology in the educational process of university students to achieve self-learning for them through the application of WhatsApp. The learner is an effective individual who contributes to the building of his society, because he is a conscious and educated person who possesses sufficient knowledge to judge matters. Based on the importance of education and the status of technology, the tools allow effectiveness in the educational process, including the student who is the focus.

Study Problem:

The rapid globas technological progress and the growth of information technology have put education in a more demanding situation to move from traditional education to available learning technology and it's applications, as attendess need to replace traditional teaching methods with technology based educational resoures and facilities that help university studentes achieve their own self-learning (bdulwahab.2021),

The key question in this study: What is the degree to which university students use IT to achieve self-learning? Which branches out the following questions:

- 1- How do university students use information technology in the educational process to benefit from it? What are the motivations and patterns of using modern technology such as applying WhatsApp to achieve scientific goals?
- **2-** What are the learning methods through the scientific groups that use the WhatsApp application that organize university students?
- **3-** What is the importance of educational scientific groups through the application of WhatsApp in the learning process of university students? **?**
- 4- How effective is the application of WhatsApp in raising students' scientific level?
- Are there differences in the use of sensory WhatsApp study variables (sex, educational level and college).

Key words:

1- Information Technology:

It is a translation of the word "TECHNOLOGY", which is derived from the Greek word "TECHNOLOGY", which means art and skill. Either Part II (LOGY), which means a film or a father's study that technology means art science and skill. (Bassam Mohamed Aboualian).

2- University:

Al-Barai 'i: 2002: p. 230) is the educational institution that provides its students with a general secondary certificate or equivalent with a knowledge and cultural education that is accompanied by professional and technical training aimed at bringing them out to life as productive individuals.

3- University Student:

Is the person whose scientific culture allowed him to move from the secondary level or vocational training to the university and considers the student to be one of the basic elements of effectiveness in the educational university, and represents numerically the global percentage of the university institution.

4- Self-learning:

It's intended that a person who is a young mother acquire information, experience and skills relying on himself and independently of any educational institution since the basic profession of self-education falls on the person himself. <u>www.Annajah.net.2021</u>

5- Usage:

It is set of actions and practices carried out by a university student when applying WhatsApp in order to achieve certain knowledge.

skills or experiences in order to improve his or her cognitive attainment in his or her specialization as the practice is not only related to techniques but also covers the behaviors and trends of individuals that have a direct or indirect relationship. (Target: 2008: p. 24)

Limits of study:

Spatial boundaries: University of Sirte.

Time limits: Spring 2022-2023.

Human boundaries: Students of the University of Sirte for all scientific and humanitarian colleges.

Previous studies:

1- Anstalah study(2023):

During this study entitled information and communications technology and it's impact on the quality of accounting performance in private night universities, a questionnaires. Was distributed to faculty member in accounting departments in a number from Libyan universities, numbering 151 questionnaires. A set of tests were conduct to achieve the objectives of the study. The study concluded that there was an impact of the use of information technology on the quality of student's performance and the impact of software on information technology in university teaching.

2- Clakhi Study (2018):

This study focused on highlighting the importance of ICT and its role in improving pedagogical service in higher education institutions from the point of view of students of the Faculty of Economics of (Ibn Khaldun Tiaret) University and for the objectives of searching and answering questions. A simple random sample of 35 students selected and the proportion of questionnaires valid for analysis was 30. The SPSS program used in data analysis. The study found the following results: There is a statistically significant effect at the level ($\Box = < 0.05$) between ICT and improved service in higher education institutions from a student's point of view.

3- Insulting and Tactic Study (2018):

The study aimed to analyses and deepen the reality of the actual use of (ICT) in our institutions in order to identify.

The role of ICT and the level of impact of its components on the overall quality, dimensions Information and communication technology,

The main data of the study revealed that awareness of the relationship between the overall qualities of ICT closely linked to the negative impact,

Although low, despite the introduction of ICT, has led to the separation of businesses and increased pressures in some enterprises indicating the role of ICT in achieving overall quality, which would improve the enterprise's performance and lead to a better outcome.

4- Naseem Wyman Study (2018):

To know the impact of the use of ICT on the quality of the educational process administratively in Algerian institutions, the study found that the impact of ICT is significant in terms of improving the quality of the educational process.

Administrative in its five components (professor-student - course- teaching process - management of the educational process) where the impact estimated 82.4% divided by items in the following order:

51.1% - 84.7% - 36.8% - 57.2% - 45.9%

According to these results, the administrators made suggestions for reaching this effect at higher levels and maintaining it will presented later.

5- Olsen Margon and Others Study (2011):

The study aimed at students' and faculty professors' attitudes towards the use of interactive video technology in the classrooms.

Student represented the sample from Dallas College in Texas. Among the most important results: 84% of the students participating in the college, the system of presenting science using video disk is easier, and 40% thought that using video in education was a learning strategy.

6- Erdogan Study (2008):

The study aimed to learn to evaluate teaching through electronic forums from the point of view of the faculty and students in Turkey and to form a sample study of (20) faculty members and (10) students. Personal interviews with the individuals of the sample used. The study reached a series of results, notably: E-forums were educationally active and students' ability to reach out to faculty members came with a high degree.

7- Study Where and Delsgard Aaen & dalsgard (2016)

The study aimed to identify educational student groups on social media sites created by students in Danish high schools. 17 secondary schools and 932 students surveyed. The study found that social media sites (Facebook) An important educational tool for high school students that helps with homework and promotes social life in academic school.

Theoretical framework:

1- Information Technology Concept

Information technology is abbreviated (IT) by the definition of the American Information Technology Group (ITAA). IT is the study, design, development, activation or management of computer-based information systems, especially computer hardware applications and infrastructukre. IT is concerned with the use of computers and software applications to convert, store, protect, process, transmit and retrieve information securely.

2- Information technology dimensions: www.ar.wikipedia.org

The Information Banks have technology in the following:

• Director: IT Manager's job is one of the most demanding given the increase in companies that increasingly rely on information systems and technology.

- Analyst: The name of the analyst known as the developer, i.e. the person designing information systems and knowing how to upgrade the software and how the devices work.
- Engineer: The software engineer can develop, test and implement software and applications in the system and must possess many translation, electronics and mathematics expertise.

3- Information systems:

Information systems are an integrated set of components of collecting, storing and providing information, knowledge and digital products.

Many companies also use the system and organizations to help implement and manage their operations, interact between customers, compete in the market, manage human resources, and use them to access the Internet.

4- The importance of information technology:

IT helps build and develop the trade and business sector and maximize production. The time it takes for different sectors to create companies now reduced as it advances and IT provides electronic security, storage and effective communication.

The impact of, I can also be told in almost all attempts including work, education, leisure and health from ministries to classrooms where each sector uses IT for best results.

We show you that information technology is very important in the 21st century. Every field needs information technology, without the Internet and the technical system, no business sector, education, visitor or health can achieve the expected results.

5- IT Benefits:

Technology has radically changed our lives and you are one look away from everything. Here are some of the rules:

- One can access the company's system from anywhere and send the required tasks and for IT specialist in various fields and provides them with the field of work in computer programkming, system analysis, software development, hardware and web application design.
- The field of education changed its perspectives and adopted a modern method of teaching and learning. Teaching on the board is something old. Teachers and institutions use modern tools to teach their students. An Internet-connected computer helps students learn new things.
- Help patients communicate with doctors and get advice online.
- Buying and selling is easier than online.
- News broadcasts are much easier and know news from anywhere in the world.

• Contact between people is cheaper and faster than ever.

6- Why do we need IT?

We need IT worldwide today to create faster connectivity, maintain electronic storage and provide protection for records. IT establishes an electronic storage system to provide protection for company records or customers' demands for secure maintenance files.

7- What is the role of information technology in education?

Information technology allows worldwide exchanges with information technology in this age that benefit not only students, but also teachers are constantly informed in order to accurately, share knowledge, iknformation, education and learning, so IT is very important.

www.menatech.net

8- Information technology and quality of higher education:

The quality of higher education is the translation of the needs of the parties benefiting from the services of higher education institutions into specific specification to achieve the satisfaction of these parties (AL-Hudayri,2020)

Method and Procedures:

Research curriculum:

The survey descriptive curriculum used to reveal the degree of use of Sirte University students for self-learning by developing a questionnaire of all data from research sample individuals, in agreement with the nature of research and variables.

Society and Sample Research:

The research community is a student of the University of Sirte in the spring semester of the university year 2022/2023 and the sample consisted of 100 students selected in a random class manner.

Search Tool:

The researcher developed identification to achieve the research goals, consisting of:

Part I: Personal data of research sample individuals related to search variables:

- Sex includes two categories (male-female)
- The College includes two categories (scientific-humanitarian)
- The school level includes (several levels)

Part II: To achieve research objectives, theoretical literature and previous studies on the subject of research have been examined in order to develop a questionnaire covering (18) a paragraph spread over (3) axes, namely:

First: Motivations and patterns of using modern technology to apply WhatsApp to achieve the aims of the educational process with 6 paragraphs.

Second: Education through groups through WhatsApp with (6) paragraphs.

The third theme: Students' opinions on the efficiency and effectiveness of modern technology to apply WhatsApp in the educational process with (6) paragraphs.

Honesty and stability of the tool:

The tool is genuinely, intended to be able to measure the variables that have developed to measure them. The survey list is genuinely, intended to cover all elements that should be analyses in terms of clarity of their paragraphs and vocabulary in such a way as to make them relevant and easy to understand.

No	Field	Number of paragraphs	Kronbach Alpha Coefficient
1	Motivations and patterns of using modern technology as a WhatsApp application to achieve the goals of the educational process	6	0.788
2	Learning through groups through WhatsApp	6	0.837
3	Students' opinions on the efficiency and effectiveness of modern technology such as the application of WhatsApp in the educational process	6	0.819
	Tool as a whole	18	0.95

Table No. (1) Persistence Factor for Kroenbach Alpha Resolution Axes

Table 1 shows that stability coefficients are high for each of the instrument's axis, with the tool's Cronbach Alpha coefficient as a whole (0.95).

The measure used in the search:

The researcher relied on the graded quinquennial Lycert scale (very large, large, medium, few, very few), the highest grading in approval was given five degrees and the lowest grading in approval was one degree and the grades were in descending order (1,2,3,4, 5).

Table	2 shows	grades and	relative	weight	of responses	to p	aragraphs
I GOIC		Si auco ana	I chach v c	of engine	or responses	vo p	an agr apms

Number	Answers	Degree of expression
1	Too big.	5
2	Great	4
3	Medium	3
4	Few	2
5	Very few	1

From (1 - 1.49) corresponds to very little usage

From (1.5 - 2.49) corresponds to a low degree of usage

From (2.5 - 3.49) corresponding to average usage degree

From (3.5 - 4.49) corresponds to a large degree of use

From (4.5 - 5) corresponds to a very large degree of use

Search Variables:

This research includes the following variables:

Intermediate independent variables: sex has two categories (male-female).

The college has two types (scientific-humanitarian).

School level (first to eighth semester).

Affiliate variables:

Students' answer to IT for self-learning is his representative of the research subordinate variable.

Statistical processing:

After the sample, questionnaires were discharged statistical data were processed using the Social Science Statistical Package (SPSS) to answer research questions by extracting calculative averages and standard deviations as well as analyzing the multiple variability of research areas and analyzing the triple variability of the tool as a whole.

Search results:

First: Results related to the first question: What is the degree to which Sirte University students use information technology to achieve self-education?

For the answer, calculation of calculation averages and standard deviations of each research axis as shown in Table 3

Table No. 3 Computational averages and standard deviations of impact Telegram applications in achieving quality in higher education ranked downward according to computational averages

No	Field	Arithmetic	Standard	Usage
INU	FieldArithme AverageStudents' opinions on the efficiency and effectiveness of modern technology such as the application of WhatsApp in the educational process2.23Motivations and patterns of using modern technology as a WhatsApp application to achieve the goals of the educational process2.52	Average	deviation	Grade
3	Students' opinions on the efficiency and effectiveness of modern technology such as the application of WhatsApp in the educational process	2.23	1.2	Few
1	Motivations and patterns of using modern technology as a WhatsApp application to achieve the goals of the educational process	2.52	1.21	Few
2	Learning through groups through WhatsApp	2.20	1.16	Few
	Degree of use as a whole	2.43	1.11	Few

Table 3 shows that the calculation averages of the axes of the degree of use of Sirte University of Information Technology students to achieve self-education ranged from 2.20 to 2.23, where the axis of learning across groups through WhatsApp came first with the highest average calculation of 2.52. (Medium), the focus of students' opinions on the efficiency and effectiveness of modern technology for the application of WhatsApp in the educational process is last, with an average arithmetic (2.20) and with little usage.

The calculation of the calculation averages and standard deviations of the research sample's estimates also calculated on the paragraphs of each of the research axes as follows:

I. First axis (motivations and patterns of using modern technology as a WhatsApp application to achieve the objectives of the educational process).

Table No. (4) Computational averages and standard deviations of axis vertebrae (motives and patterns of using modern technology as a Wetsap application to achieve the objectives of the educational process) ranked downward according to computational averages

Level	no	Paragraphs	Arithmetic Average	Standard deviation	Usage Grade
1	6	Use the app to increase communication between individuals in the educational process.	2.41	1.12	Few
2	4	Is modern technology, used as a WhatsApp application for learning purpose? 2.35			Few
3	2	Is modern technology as a WhatsApp application better at saving time and effort than attending university?	1.71	1.11	Few
4	3	Is modern technology, used as a WhatsApp application in the educational process to obtain information?	1.63	0.91	Few
5	5	Is modern technology such as the application of WhatsApp instead of scientific, lectures, due to the conflicts in the table?	1.56	0.83	Few
6	1	Does WhatsApp increase your motivation towards learning?	1.50	0.75	Few
		Area as a whole	1.83	1.23	Few

Table No.4 shows that the arithmetic averages of poplar vertebrate fluctuated between 1.50 and 2.41. The application has used to increase communication between individuals of the educational process.

In the first place with an average calculation of 2.41 and with an average usage of 1 (Does the application of WhatsApp increase your motivation towards learning) in the last order with an average calculation of 1.50 and with little usage, the average calculation of the axis as a whole (1.83) and with a degree of usage (few).

Level	no	Paragraphs	Arithmetic Average	Standard deviation	Usage Grade
1	4	Does the professor have the ability to communicate information through groups through the use modern technology as a WhatsApp application for students?	3.30	1.21	Medium
2	5	Do you have specific scientific materials that you are interested in obtaining through scientific groups?	3.21	1.41	Medium
3	6	Do you trust the information people provide across groups through modern technology such as WhatsApp?	2.34	1.03	Medium
4	3	Have scientific groups benefited you through modern technology such as WhatsApp?	1.82	0.98	Few
5	2	Are you an organizer of scientific groups through the WhatsApp application?	1.51	0.91	Few
6	1	Have you made a scientific collection about your specialty?	1.42	0.90	Very few
		Area as a whole	3.21	1.02	Medium

Table No. 5 shows the computational averages and standard deviations of Axis 2 (Learning through groups through WhatsApp), arranged downward by computational averages

Table5 shows that the computational averages and standard deviations of the second axis paragraphs ranged from 1.42 to 3.30.

With paragraph4 providing for (Does the professor have the ability to communicate information through groups through use of modern technology as a WhatsApp application for students?) First, with an average arithmetic of 3.30 and with an average usage level, paragraph 1, which stipulates (Have you created a scientific group around your specialty) in the last order with an average arithmetic of 1.42, very little use of the axis as a whole (3.21) and medium use.

Table No. 6 shows the computational averages and standard deviations of the axis paragraphs No. 3 (Students' opinions on the efficiency and effectiveness of modern technology such as the application of WhatsApp in the educational process) ranked downward according to the computational

		averages			
Level	no	Paragraphs	Arithmetic Average	Standard deviation	Usage Grade
1	1	Have you made the use of modern technology as a WhatsApp scientific benefit?	1.80	1.01	Very few
2	4	Do you want to be interested in learning methods through modern technology such as applying WhatsApp in university mellies.	1.27	1.32	Very few
3	6	Do you think that using modern technology as a WhatsApp increases communication and	1.23	1.11	Few

interaction between learners?

Is modern technology using as a WhatsApp

Few

1.26

1.11

4

3

		application in the educational process?			
5	2	Has modern technology such as WhatsApp contributed to raising your educational achievement?	1.25	1.13	Few
6	5	Do you see that learning using modern technology, as a WhatsApp application will replace traditional education?	1.48	1.10	Few
		Area as a whole	1.25	1.07	Very few

Computational averages and standard deviations of Axis 3 paragraphs ranging from 1.48 to 1.80 shown in Table (6).

Paragraph (1) (Has the use of modern technology such as WhatsApp made you a scientific benefit).

In the first place with an average calculation of 1.80 and the degree of use (Very few) Paragraph (5),

Which states (Do you see that learning using modern technology such as WhatsApp will replace traditional education), Last ranked with an average arithmetic of 1.48 and with a low usage of the axis as a whole (1.25) and with very little usage.

Second, with regard to the second question, "Does the degree to which Sirte University students use information technology to investigate self-learning vary by sex, college and classroom?

The standard averages and deviations of Sirte University students' use of information technology to achieve self-learning calculated according to gender, college and classroom variables as shown in Table No.7.

 Table No. (7) Computational averages and standard deviations to the degree to which Sirte

 University students use information technology to achieve self-learning according to gender, college

 and classroom variables

			First axis	Second axis	Third axis	Tool as a whole
	Mala	А	2.51	2.61	2.73	1.25
Sou	Iviale	В	1.20	1.11	1.03	1.01
Sex	Famala	А	1.90	1.43	1.33	1.41
	remaie	В	1.13	0.98	0.91	0.93
	Scientific	А	2.62	2.73	2.61	1.83
Collogo		В	1.27	1.28	1.27	1.37
College	Uumonitorion	А	1.31	1.43	1.19	1.20
	numamanan	В	1.01	1.02	1.01	0.98
Classroom	First	А	1.25	1.15	1.21	1.56

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$							
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			В	0.97	0.76	0.78	1.33
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Second	А	1.15	1.11	1.25	0.86
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Second	В	0.81	0.83	0.81	1.41
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Third	А	1.22	1.23	1.22	1.071
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Third	В	1.03	1.04	1.06	1.07
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Fourth	А	1.03	1.10	1.06	0.93
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Fourth	В	1.18	0.63	1.11	1.48
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Fifth	А	1.12	1.31	1.46	0.81
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			В	0.91	0.75	0.63	2.33
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Sixth	А	1.23	2.51	2.41	0.75
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			В	0.91	0.86	0.91	2.41
B 0.78 0.91 0.91 2.39 A 2.56 2.59 2.61 0.94 B 0.71 0.78 0.93 0		Seventh	А	2.56	2.43	2.57	0.89
A2.562.592.610.94B0.710.780.930		Seventin	В	0.78	0.91	0.91	2.39
B 0.71 0.78 0.93 0		Fightconth	А	2.56	2.59	2.61	0.94
		Eighteenth	В	0.71	0.78	0.93	0

Table No. 7 shows that the computational averages of the sex variable (male) were higher, followed by the college (scientific) variable that took place in the eighth semester on all three axes of research.

To detect statistically significant differences at the indicative level ($\alpha = 0.05$) of computational averages and standard deviations of.

The degree to which Sirte University students use information technology to achieve selflearning, between different categories of sex variables (Male-Female),Faculty (Scientific-Humanitarian) and School Level (Semester First, Second, Third, fourth, fifth, sixth, seventh and eighteenth) On the three lines of research, the tripartite variability analysis of the impact of these variables has been used as the following table shows:

Source of variation	Total boxes	Degree of freedom	Average boxes	Value P	Statistical connotation
Sex	3.211	1	3.211	3.28	0.045
College	1.41	2	0.706	0.719	0.0311
Classroom	1.086	1	1.085	0.631	0.025
Error	102.156	152	0.981	-	-
Total	109.187	156	-	_	-

Table 8 shows the following:

- There are statistically significant differences at the indicative level ($\alpha = 0.05$) in the degree of employment as a whole that are attributable to the effect of sex in favors of (male).
- The existence of statistically significant differences at the level of indication ($\alpha = 0.05$) in the degree of use as a whole is attributable to the effect of the college and was in favors of (scientific).
- The existence of statistically significant differences at the indicative level ($\alpha = 0.05$) in the overall degree of use attributable to the impact of the semester and in favors of the semester (VIII).

Discussion of conclusions and recommendations:

First: Discussing the results of the first question: What is the degree to which Sirte University students use information technology to achieve self-education?

The results of the research showed that the total averages of calculation of the axes of the degree of use of the students of Sirte University of Information Technology to achieve self-learning were 2.43. The calculation averages of the axes of the research ranged from 2.20 to 2.52.

The third theme was "Students' views on the efficiency and effectiveness of modern technology for applying WhatsApp in the educational process".

Last place this result can be changed in light of the educational environment Teaching staff instructions for students,

Some of them and the role of technology in the educational process, the lack of Internet access for some students and the continuous disruption in addition to the requirements of some students.

when using or applying information technology in all its fields This may contribute to reducing the employment of these sites in the educational process by students as well as the pressures of the academic body represented in increasing the number of lectures.

Second: To discuss the reasonable results of the second question: Does the degree of Sirte University students' use of information technology to achieve self-learning vary by sex, college and classroom?

Results showed that there are statistically significant differences in the level of statistical significance ($\alpha = 0.05$).

In the degree of use condoles the impact of sex on the tool as a whole and in all axes the differences came in favor (Male).

Also showed differences, in the degree of use attributable, to the impact of the College on the tool as a whole and came.

In favor of the College (Scientific) In relation to differences in the classroom variable restricted to students, there were differences in favor of (restricted to eighth semester).

This Is attributed to the fact that male students are more used and followed up.

On IT and those Muslim students in scientific colleges are more used for technology applications than students enrolled in humanitarian colleges because of the nature of the specialization. Students enrolled in advanced classes more used for technology applications being more experienced than their colleagues in the first classroom are.

Conclusion:

- 1- Male students are more likely to use and follow information technology.
- 2- Student enrolled in scientific colleges are more likely to use technology applications than students enrolled in humanities colleges due to the nature of their specialization.
- 3- Students enrolled in advanced classes are more likely to use technology applications because they are more experienced than their colleagues are in the first classes.
- 4- Due to the lack of availability of constant interruption, and the circumstances of some students, it prevented students from using modern technology in all its fields and application.
- 5- The weakness and constant interruption of the internet has led to the failure to employ these sites in the educational process.
- 6- The pressures of the academic load represented by the increase in lectures did not enable students to use these applications in the educational process.

Recommendations:

- 1. Work to activate and promote the use of technology and information applications in the educational process of undergraduate students in all colleges.
- 2. The preparation of teaching programs for students in the use and application of technology associated with their acquiring the skills of using and employing this technology in the educational process.
- 3. Include in university subjects strategies and methods of using technology applications educational process in practical programmers for students at universities.
- 4. Further studies and research on the use and application of technology and impediments to its use in universities.

References

First: Arab References

- Ali Nabil (2005): "Information technology and the development of science". Academic Library First Edition, p. 13, 2005.
- 2- Sadiq Samir Hanna (2004): "Meeting Humanities and Natural Sciences", presentation of the hedgehog the fox and the master pc. Academic Library Brochures Series, 2004, p. 28.
- 3- Bilal, Abdelmonim Yusuf (2003): "Communications and Informatics in Egypt, Reality and Future to 2020-Academic Machinery, First Edition, p. 18
- 4- Bassam Mohammed Aboualian (2011): "Information and Communications Technology Pros, Cons and Methods of Prevention", working paper presented for Practical Day Open Jerusalem University, pp. 2, 2011.
- 5- Noureddine Hadid (2008): "Modern Technology for Information, Communication, Uses and News", Master's Thesis.
- 6- Abu AL-Qasim abustsla(2023):"information and commotion technology and it's impact on the quality of performance of accounting student in Libyan universities, an exploratory study, sirte university journal for human sciences, Libya 13(2),
- 7- Clakhi Latifa (2018): "Information and communication technology and its role in improving pedagogy in higher education institutions from the perspective of students" Study of the case of the Faculty of Science and Economics of Ibn Khaldoun University Local Currents Integration Economics No. 15.
- 8- Mudlous Connected, Atwa Mohammed (2018): "The Role of ICT in Reducing Jordan's Overall Quality."
- 9- Nusseb Dafullah, Wyman Ben Zian (2018): "The impact of the use of ICT on the quality of the process from the destination of Nadir Adari Sample of Algerian Universities", Journal of Economic Studies.
- 10- Alhudayri, Rabiaa, Qaddour, Amna (2020):the formation of the university professor and it's relationship to the quality standards competition in higher education institutions in Libya, AL0Turath Magazine 20(3),pp 246 269.

Second: Foreign references

1- Alsen margot and others (2011): "Attitude toward video dlse technology in dall country community college district dale country community call dis triet".

- 2- Erdogan (2008): An evaluation of web based instruction view of the tutors and students perspectives Turkish online journal of distance education, 9(2), 86
- 3- Abdulwahad m, Ibrahim Ghanim and Masuri,siti, Ujila Mahmoodm Rawa Muayadm,(2021):" Mpact of Information and communication Technology (ICT) on Teaching and Learning Practices", Journal of Human Development and education for specialized Research (JHDSR),7(1).PP222 – 240.
- 4- Barman, Basudeb (2021):"uses of ICT in Higher Education, international Journal of Research, 7(1), pp42 – 49.

Third: Electronic references

- 1- www.ar.m.Wikipedia2021
- Visit date 27-8-2023 (11: 15-11: 30 pm).
- 2- www.annajah.net2021
- Visit date 28-8-2023 (10:30 10:45 pm).